Memorandum

To: General Faculty

Date: September 24, 2007

Regarding: Agenda, Faculty Senate Meeting, September 28th, 2007 at 3.00 pm at the Technology-enhanced learning Center, Room 1-303

The agenda for the, September 28, 2007 Faculty Senate Meeting will be as follows:

1. Call to Order

2. Roll Call

3. Approval of the minutes of the April 20th, 2007 meeting (see Addendum I)

Committee Reports:

Committee I: Undergraduate Academic Programs (Chair, Diane Fulkerson)

Action Items: (See Addendum II)

A) College of Arts and Sciences

   1) Department of Computer Science
      a) CS 2001
         Request: course add
         Action: Approved

      b) CS 4911
         Request: course add
         Action: Approved

      c) CS 4986
         Request: course add
         Action: Approved

      d) Computer Science (B.A. in Computer Science)
         Request: program add
         Action: Approved

   2) Department of Foreign Languages and Literatures
      a) FREN/GRMN/SPAN 1001 and 1002
         Request: Core Curriculum Modification
         Action: Approved
3) Department of Geosciences
   a) BA in Geography
      Request: Modify other
      Action: Approved – with friendly amendment
   
   b) GEOG 1112
      Request: Core Curriculum Modification
      Action: Approved with F/A to change the effective Date to Fall 07
   
   c) GEOG 1112L
      Request: Core Curriculum Modification
      Action: Approved with F/A to change the effective Date to Fall 07
   
   d) GEOG 1113
      Request: Core Curriculum Modification
      Action: Approved with F/A to change the effective Date to Fall 07
   
   e) GEOG 1113L
      Request: Core Curriculum Modification
      Action: Approved with F/A to change the effective Date to Fall 07

B) College of Education
   1) Department of Physical Education and Recreation
      a) PHED 3602
         Request: course deletion
         Action: Approved

Information Items:

A) College of Arts and Sciences
   1) Department of Geosciences
      a) GEOG 2083
         Request: modify title
         Action: Approved

B) College of Education
   1) Department of Physical Education and Recreation
      a) PWLA 1616
         Request: course modify other
         Action: Approved

      b) PHED 4680
         Request: course modify
         Action: Approved

Committee VI: General University Matters Committee (Chair, Dawn McCord)
Information Items:

A) Centennial Celebration Report (See Addendum III)
Committee IX: Graduate Studies (Chair, Skip Clark)

(See Addendum IV)

Action Items:

A) College of Arts and Sciences

Program Additions
College of Arts & Sciences
Math - Master of Science

1) Department of Mathematics
   a) Master of Science in Mathematics
      Request:  Add
      Action: Approved

   b) MATH 6003
      Request:  Add
      Action: Approved

   c) MATH 6043
      Request:  Add
      Action: Approved

   d) MATH 6103
      Request:  Add
      Action: Approved

   e) MATH 6203
      Request:  Add
      Action: Approved

   f) MATH 6213
      Request:  Add
      Action: Approved

   g) MATH 6233
      Request:  Add
      Action: Approved

   h) MATH 6253
      Request:  Add
      Action: Approved

   i) MATH 6263
      Request:  Add
      Action: Approved

   j) MATH 6303
      Request:  Add
      Action: Approved
k) MATH 6363  
   Request: Add  
   Action: Approved

l) MATH 6403  
   Request: Add  
   Action: Approved

m) MATH 6413  
   Request: Add  
   Action: Approved

n) MATH 6423  
   Request: Add  
   Action: Approved

o) MATH 6473  
   Request: Add  
   Action: Approved

p) MATH 6483  
   Request: Add  
   Action: Approved

q) MATH 6503  
   Request: Add  
   Action: Approved

r) MATH 6513  
   Request: Add  
   Action: Approved

s) MATH 6613  
   Request: Add  
   Action: Approved

t) MATH 6713  
   Request: Add  
   Action: Approved

u) MATH 6723  
   Request: Add  
   Action: Approved

v) MATH 6733  
   Request: Add  
   Action: Approved

w) MATH 6743  
   Request: Add  
   Action: Approved
B) College of Education

1) Department of Curriculum and Instruction
   a) Ed.S in Middle Grades
      Request: Modify
      Action: Approved
   b) Ed.S. in Secondary Education
      Request: Modify
      Action: Approved
   c) Initial Certification/Post Baccalaureate-Chemistry
      Request: Modify
      Action: Approved

2) Department of Media and Instructional Technology
   a) M.Ed. in Media (IT Track)
      Request: Modify
      Action: Approved
   b) Ed.S. in Media (IT Track)
      Request: Modify
      Action: Approved
   c) Ed.S. in Media (Media Track)
      Request: Modify
      Action: Approved
   d) MEDT 7472
      Request: Add
      Action: Approved

3) Department of Physical Education and Recreation
   a) M.Ed. in Physical Education/Recreation
      Request: Deactivate
      Action: Approved
   b) Ed.S. in Physical Education/Recreation
      Request: Deactivate
      Action: Approved
   c) Non-Degree Initial Certification in Physical Education
      Request: Deactivate
      Action: Approved
Information Items:

The following minutes were approved by COGS and may be viewed at
http://www.westga.edu/~cogs/minutes/

February 21, 2007 as approved March 14, 2007
March 14, 2007 as approved April 18, 2007
April 18, 2007 as approved July 25, 2007

4. Adjournment
Addendum I
Date: May 4, 2007

Call to Order: The meeting was convened in room 1-303 of the Technology-Enhanced Learning Center. Chair pro-tem Randy Hendricks called the meeting to order at: 3:04 p.m.

Roll Call: Abbott; Bray; Chibbaro; Fulkerson; Gainey; Harkins; Hendricks, C; Hendricks, R; Holland; Lloyd; MacKinnon; Moffeit; Murphy; Pencoe; Prince; Reber; Snipes; Webb; Wilson.


Minutes: The minutes of the February 2, 2007, meeting of the Faculty Senate were approved with two changes: the section of the minutes concerning the Chair of the Faculty Senate was moved out from under Committee III information and the SWOT analysis was changed from the previous incorrect spelling (SWAT).

Committee I: Undergraduate Academic Program: Chair: Jeffrey Reber

Action Items:
A) College of Arts and Sciences:
   1) Foreign Languages and Literature – Dr. Overfield addressed program modifications needed. Motion made: Approved.
   3) Dept. of Math – Due to BOR mandates, course addition and course deletion. Motion made: Approved.
   4) Dept. of Nursing – the addition of NURS 3272 was postponed. Because of the state of Georgia licensure exam, course addition (NURS 4444) was requested. Motion made: Approved.
B) College of Education - Dr. Judy Butler addressed the following:
   1) Dept. of Counseling and Educational Psychology – due to BOR mandates, two course additions. Motion made: Approved.
   2) Depart. of Curriculum and Instruction – due to BOR mandates, program modifications for the MGED Math/Science and MGED Language Arts/Social Studies concentrations; Three ECED and one READ course addition, one MGED and one SEED course deletion. Motion made: Approved.
   3) Dept. of Special Education and Speech language pathology – Dr. Michael Hazelkorn addressed the reactivation of the newly titled BS ED in Special Education: General Curriculum (Mild Disabilities) program and eight course additions for that program. Also, modification of the BS in Education: Speech-Language Pathology program. Motion made: Approved.
Information Items: Core curriculum modification in the Dept. of Foreign Languages and Literature and course modifications in the Depts. of Geology and Nursing in the College of Arts and Sciences; course modifications in the Depts. of Curriculum and Instruction and Special Education and Speech Language Pathology in the College of Education; and course modifications in the Depts. of Accounting and Finance, Management and Business Systems, and Marketing and Real Estate in the Richards College of Business were presented to the Faculty Senate.

Committee II: Academic Policies and Procedures: Chair: Kathy Moffeit

Action Item:
A) Class Absence Policy – Dr. Tara Singer spoke to the newly-proposed policy, especially as it concerns students on UWG sanctioned off-campus events. Pros and cons were brought up by the body; then a motion was made and a vote taken. A hand-count was needed and it resulted in: 6 yes, 8 no, and 1 abstention. Motion failed and the policy will be taken back to the committee for revision with input and concerns to be sent to the committee chair.
B) Revisions to the Faculty Handbook Section 203 Class Rolls section were presented. Extended discussions ensued and a motion was made to approve the revisions: a hand-vote was taken: 15 yes, 1 no, 0 abstentions. Motion carried.
   A. MacKinnon then made a motion requesting that the Committee re-visit the language of all the sections of the Faculty Handbook considered today: Approved.
C) Revisions to the Faculty Handbook Section 204 Course Changes and Drops were presented to the body. Motion made: Approved.
D) Revisions to the Faculty Handbook Section 205 Reporting Grades and Withdrawal Policy were presented to the body. Motion made: Approved.

Information Items:
A) APPC endorses the concept of the UWH First Year Program and has asked for assessment statistics when they become available.
B) APPC is forming a sub-committee on the UWH academic calendar to convene in Fall 2007.

Committee IV: Learning Resources Committee: Chair: Donna Harkins

Information Item: LRC recommended that Faculty Research Grants totaling $43,000 were to be awarded to 29 faculty members.

Committee VII: Institutional Studies and Planning: Chair: Julie Chibbaro

Information Item:
Dr. Michael Crafton referenced the weblink to the report of the Committee, the drafting of a new UWG planning document, USG’s new planning document, and the
collection of information on the SWOT analysis. The sub-committee will be meeting in the summer and report back in the fall.

Committee IX: Graduate Studies: Chair: Charles Clark

Action Items:
A) College of Education:
   1) Dept. of Media and Instructional Technology - Dr. Dawn Putney addressed the modification of three of the graduate media programs and addition of a course. Motion made: Approved.
   2) Dept. of Special Education and Speech-Language Pathology – Dr. Michael Hazelkorn spoke to the modification of the M.Ed program. Motion made: Approved.

B) Richards College of Business:
   1) Dept. of Accounting - program modification. Motion made: Approved.

Information Items:
A) College of Education: Dept. of Media and Instructional Technology – course modifications.
B) COGS minutes are on-line and available for review.

Faculty Senate Meeting Dates 2007/2008 – presented by Dr. Michael Crafton. Approved by the Faculty Senate.

Announcements

1) Mr. Michael Crafton invited the chairs of the Faculty Senate sub-committees and members of the university community to join a meeting on June 22 at 2 pm to discuss how to proceed.
2) Senate Committee memberships for the upcoming academic year will be posted on the VPAA’s website as vacancies are filled.

Adjournment: Motion was made seconded by the departure of the members of the Faculty Senate at 4:15 p.m.

Respectfully submitted by Ron Reigner, Executive Secretary.
Addendum II
Course or Program Addition, Deletion or Modification Request

Department: Computer Science  College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Action</th>
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<td>☑ Modify</td>
<td>☑ Undergraduate</td>
<td>☑ Every Term</td>
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<td>Program</td>
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<td>☑ Graduate</td>
<td>☑ Yearly</td>
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<td>☑ Delete</td>
<td>☑ Other*</td>
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<td>*Variable credit must be explained</td>
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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Hours: Lecture/Lab/Total</th>
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<tbody>
<tr>
<td>CS</td>
<td>2001</td>
<td>Technology Frontiers</td>
<td>2 / 2 / 3</td>
</tr>
</tbody>
</table>

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

This course will discuss milestones in the history of computing while exploring and evaluating a variety of current and innovative computing applications. Students will solve a variety of simple problems designed to demonstrate the impact of computing as a problem-solving medium. Students will deliver an effective presentation related to topics covered in the course. Professional computing societies and organizations, as well as current trends in the computing job market will be discussed.

Prerequisite(s) Permission of Department required.

Present or Projected Enrollment: 30 (Students per year) Effective Date*: Fall / 2007

*For a new course, one full term must pass between approval and effective date.

Grading System: ☑ Letter Grade ☐ Pass/Fail ☐ Other

Approval

Department Chair: [Signature] MAR 15 2007

 Dean of College: Date

Dean of College (if cross listed): Date

Chair of TEAC (if teacher prep. program): Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee: 9-14-07

Chair, Committee on Graduate Studies: Date

Vice President for Academic Affairs: Date

Revised 1/09/02
## Course or Program Addition, Deletion or Modification Request

**Department:** Computer Science  
**College:** College of Arts & Sciences

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### Action
- ✔ Course  
- □ Program
- □ Modify  
- □ Add  
- □ Delete
  - □ Credit  
  - □ Number  
  - □ Title  
  - □ Description  
  - □ Other

### Credit
- ✔ Undergraduate  
- □ Graduate  
- □ Other*  
  
  *Variable credit must be explained

### Frequency
- □ Every Term  
- ✔ Yearly  
- □ Other

### Rationale:
To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

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- □ Library resources need enhancement

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<tr>
<td></td>
<td>4911</td>
<td>Cyber-Forensics and Security</td>
<td>2 / 2 / 3</td>
</tr>
</tbody>
</table>

### Catalog Description
(New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

This course explores crimes involving computers and computer networks, with an emphasis on the technology used to perform such crimes and the technology used to detect, prevent, and document them. Topics include evidence gathering and analysis, intrusion detection and response, data hiding techniques, common digital crimes and profiles of perpetrators, legal testimony, and report writing. The course will include a review of relevant computer networking and file systems concepts.

### Prerequisite(s)
CS 3280

### Present or Projected Enrollment:
15 (Students per year)  
**Effective Date:** Fall /2007  
**Term/Year**

### Grading System
- ✔ Letter Grade  
- □ Pass/Fail  
- □ Other

### Approval

---

### Dean of College

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### Chair of TEAC (if teacher prep. program)

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### Final Approval:
Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

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### Vice President for Academic Affairs

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**Revised 1/09/02**
Course or Program Addition, Deletion or Modification Request

Department: Computer Science College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

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Action

- [ ] Course
- [ ] Program

Modify
- [ ] Credit
- [ ] Number
- [ ] Title
- [ ] Description
- [ ] Other

Add
- [ ] Credit

Delete
- [ ] Credit

Credit

- [ ] Undergraduate
- [ ] Graduate
- [ ] Other*

*Variable credit must be explained

Frequency

- [ ] Every Term
- [ ] Yearly
- [ ] Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- [ ] Library resources are adequate
- [ ] Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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<tr>
<td>CS</td>
<td>4986</td>
<td>Computing Internship</td>
<td>3 / 0 / 3</td>
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</tbody>
</table>

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

A hands-on, supervised field experience in computing. Students will create and present a comprehensive portfolio documenting the field experience. May be repeated for a total of 6 hours. Grading S/U.

Prerequisite(s) Junior or Senior status and permission of Department

Present or Projected Enrollment: 10 (Students per year)

Effective Date*: Fall /2007

Grading System:
- [ ] Letter Grade
- [ ] Pass/Fail
- [ ] Other

Approved by:

Department Chair: [Signature] Date: MAR 15 2007

Dean of College: Date

Dean of College (if cross listed): Date

Chair of TEAC (if teacher prep. program): Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee: [Signature] Date: 9/14/07

Chair, Committee on Graduate Studies: Date

Vice President for Academic Affairs: Date

Revised 1/09/02
Undergraduate Course Additions
Department of Computer Science

Submitted: 3/15/2007
Effective Term: Fall 2007

Rationale:
These courses are being added to provide additional elective courses in the B.S. in CS program as well to support the Department’s new program proposal for a Bachelor of Arts in Computer Science.

Course Additions:
- CS 2001: Technology Frontiers
- CS 4911: Cyber-Forensics and Security
- CS 4986: Computing Internship

CS 2001 - Technology Frontiers
Number: CS 2001
Title: Technology Frontiers
Credit: 2/2/3
Pre-requisite: Permission of Department required.

Catalog Description
This course will discuss milestones in the history of computing while exploring and evaluating a variety of current and innovative computing applications. Students will solve a variety of simple problems designed to demonstrate the impact of computing as a problem-solving medium. Students will deliver an effective presentation related to topics covered in the course. Professional computing societies and organizations, as well as current trends in the computing job market will be discussed.

Learning Outcomes

1. Discuss significant milestones in the history of computing.
2. Construct a clear written solution to a simple problem.
3. Develop and give a short, effective class presentation.
4. Discuss computing as a profession, including current trends in job market, and professional societies and organizations.
5. Explore a variety of computing applications.
6. Evaluate a unique application of computing as an application to solve a problem we encounter daily.
Units

1. **History**
   Discuss milestones in computing by reviewing: textbooks; web sites; DVD; Public TV shows; etc. Students will give a presentation and write a term paper on a milestone in the history of computing.

2. **Problem Solving**
   Students are asked to develop written solution to simple problems. This could be done as a team/group building exercise. Some of the problems may include: tower of Hanoi; 8-puzzle; etc. Students will also develop very simple computer programs in a variety of simple environments (i.e. Lego Robots, Logo, SiMPELE).

3. **Applications**
   Explore and use unique and innovative applications of computing (i.e. Google Maps, Wikipedia, iPods, MySpace, etc.). Students will keep journal entries documenting their experiences with the applications. The final journal entry will include a thorough evaluation of the applications.

4. **Job Markets**
   What do computing professionals do? What organizations are there to support the profession? Students will attend presentations with local computing professionals. Students will also examine the various curricula options available to them.

**Textbooks/Reference Material**

- A number of DVD of TV shows and movies.

**Assignment Types**

- Several journal entries for the review and evaluation of a selected computing application.
- Presentation
- Term Paper
- Teamwork (team building exercises)
- Problem solving & programming

**Graded Work**

- Teamwork (20%)
- Presentation & Paper (25%)
- Problem Solving & Programming (25%)
- Journal Reports (20%)
- Exam/Quizzes (10%)
CS 4986 - Computing Internship

Number: CS 4986
Title: Computing Internship
Credit: 3/0/3
Pre-requisite: Junior or Senior status and permission of the Department

Catalog Description

A hands-on, supervised field experience in computing. Students will create and present a comprehensive portfolio documenting the field experience. May be repeated for a total of 6 hours. Grading S/U.

Learning Outcomes

1. Discuss practical field experience as it relates to the program of study.
2. Develop and give a public presentation related to field experience.
3. Evaluate and reflect on field experience by the use of a portfolio.

Graded Work

- Faculty/Supervisor Evaluation (50%)
- Presentation (25%)
- Portfolio (25%)

Additional Information:
The Faculty advisor and the student will discuss and make arrangements to provide the student with an internship opportunity based on her/his area of concentration and interest. The student will be placed at a local company/organization as appropriate. The Faculty advisor, in consultation with the field supervisor, will assess the student's experience and evaluate the student's performance. The Faculty advisor will make the final grade determination. A student, with the approval of the Faculty advisor, may make arrangements to find an appropriate internship opportunity suitable for her/his interest.
CS 4911: Cyber Forensics and Security

Number: CS 4911
Title: Cyber Forensics and Security
Credit: 2/2/3
Pre-requisite: CS 3280

Catalog Description

This course explores crimes involving computers and computer networks, with an emphasis on the technology used to perform such crimes and the technology used to detect, prevent, and document them. Topics include evidence gathering and analysis, intrusion detection and response, data hiding techniques, common digital crimes and profiles of perpetrators, legal testimony, and report writing. The course will include a review of relevant computer networking and file systems concepts.

Learning Outcomes

1. Discuss procedures as well as the legal and ethical responsibilities for evidence handling, documentation and reporting, and presentation in court.
2. Apply techniques for intrusion detection and demonstrate knowledge of procedures for incident response.
3. Apply knowledge of computer systems, networking, and standard application behaviors in the process of evidence gathering from a computer system.
4. Analyze file system images and system/network logs, for the purposes of evidence gathering, using current/commonly used software tools.
5. Demonstrate an ability to apply methodologies and tools to recover hidden, encrypted, and/or "deleted" data.
6. Identify common types of digital crime, profiles of computer criminals, and discuss non-technical aspects of cyber-crime, such as social engineering.

Units

1. Introduction to Cyber Forensics (1 week)
   Common types of digital crimes; basic legal issues; profiles of computer criminals
2. Collection and analysis of data from hosts (3 weeks)
   Forensic duplication; review of file systems; analysis of data from memory, disk, and applications
3. Collection and analysis of network data (2 weeks)
   Review of networking concepts; intrusion detection, nework taps, logging; honeypots/honeynets
4. Introduction to Computer Forensic tools (1 week)
   Encase; The Coroner's Toolkit (TCT), The Sleuth Kit (TSK), Snort
5. Evidence handling, documentation, and reporting (interlaced as appropriate throughout the course) (2 weeks)
6. Non-technical aspects of computer crimes (1 week)
   Social engineering; chassis traps, self-destruct mechanisms
7. Data hiding mechanisms (1 week)
   Encryption; steganography; network tunneling
8. Court testimony and report writing (2 weeks)
9. Laws regarding digital evidence (2 weeks)

Possible Textbooks


Reference Material


Assignment Types

- Projects utilizing tools (e.g., Encase, The Coroner’s Toolkit (TCT), The Sleuth Kit (TSK), Snort) on provided data with written reports based on project findings
- Written assignments on current articles
- Presentation (possibly performed as a mock legal testimony)
- Exams

Graded Work

- Laboratory reports (40%)
- Written assignments (15%)
- Presentations (15%)
- Exams (30%)
Course or Program Addition, Deletion or Modification Request

Department: Computer Science
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Bachelor of Arts in Computer Science

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<th>Title</th>
<th>Hours:</th>
<th>Lecture/Lab/Total</th>
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</table>

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

See attached "Formal Proposal."

Prerequisite(s)

Present or Projected Enrollment: 35 (Students per year)

Effective Date*: Fall 2007

Grading System: ☐ Letter Grade ☐ Pass/Fail ☐ Other

Approved: MAR 15 2007

Department Chair: Date

Department Chair (if cross listed): Date

Dean of College: 4/13/07

Dean of College (if cross listed): Date

Chair of TEAC (if teacher prep. program): Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee: 9-14-07

Chair, Committee on Graduate Studies: Date

Vice President for Academic Affairs: Date

Revised 1/09/02
NEW PROGRAM PROPOSAL

Bachelor of Arts with a major in Computer Science

<table>
<thead>
<tr>
<th>Date</th>
<th>2/28/2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution</td>
<td>University of West Georgia</td>
</tr>
<tr>
<td>School/Division</td>
<td>College of Arts and Sciences</td>
</tr>
<tr>
<td>Department</td>
<td>Computer Science</td>
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<tr>
<td>Name of Proposed Program</td>
<td>Bachelor of Arts in Computer Science</td>
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</table>
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1. Program Description and Objectives

The proposed program is a Bachelor of Arts in Computer Science (B.A. in CS). The main objective of the proposed program is to prepare graduates for careers in the Information Technology (IT) field. The proposed program is designed to provide students with technical knowledge and skills, as well as knowledge and skills in a discipline that supports and enhances their knowledge in an area of application/specialization. The proposed program is designed to support three distinct tracks/specializations of study. These tracks are: Software Development; Cyber Forensics and Security; and Cyber Media. Thus, students in this program are required to take courses in computer science and in at least one other program outside computer science.

Graduates of the proposed program will be well versed in computing fundamentals. They will have developed a depth of knowledge and technical skills in computer science needed for success in today’s IT industry, and will be prepared to adapt to the rapidly changing needs for the IT industry of tomorrow. They will have communication skills that enable them to effectively promote a project and deliver technical presentations to audiences of differing technical skill. They will be conversant in a language in addition to English. Their breadth and depth of technical knowledge in CS will be complemented and enhanced with appropriate knowledge from another discipline, depending on the specific degree track that is chosen (i.e., students following the Software Development track will take courses in Psychology; those in the Cyber Forensics and Security track will take courses in Criminology; those in the Cyber Media track will take courses in Mass Communications). This cross-disciplinary nature of the proposed program is one of the most unique aspects of the program.

The proposed B.A. in CS program will attract a different student body than our current undergraduate degree offering, the Bachelor of Science in Computer Science (B.S. in CS). This student body would be composed of a diverse population of students. The B.A. in CS will attract women and minority students who are interested in applying their technical knowledge and skills to other fields. The graduates of the proposed program, known as the “new geeks”, will spend less time working alone in a cubicle and more time in the conference room and interacting with team members, project leaders, and clients/end-users. They must interface with technical as well as non-technical professionals, and must serve as technology resources to various groups in other fields [1, 2, 3].

The proposed program will be delivered in parallel with the currently offered B.S. in CS program, and will be taught by existing faculty. The program will utilize several existing courses that are already established and currently offered. The Department of Computer Science supports excellent instructional computing labs and facilities, which are adequate and sufficient to support the needs of the proposed program. Thus, no additional resources are requested to begin offering the program; however, future re/allocation of
resources may be needed to accommodate the anticipated growth in the students' population. In addition, re/allocation of resources may be needed to support the other disciplines/programs that are vital to the success of the proposed program.
2. Justification
Societal Need for Graduates of the Program

Computing touches all professions and fields. Indeed, computer science education has
had a very narrow focus on teaching the "science" only. Since the end of the 20th
century, one of the most prominent areas of growth in the IT field is the need for IT
professionals to step outside of purely technical pursuits ("technology for technology's
sake") to engage non-technical professionals and to assist organizations in achieving their
missions. This represents a challenge that CS educators must meet in order to prepare
students for new opportunities. Another challenge facing CS educators is the lack of
diversity in the student body. CS educators must work hard to meet this challenge in
order to create opportunity reflective of the society's demographics [1].

The U.S. Bureau of Labor Statistics (BLS) reports that "companies look for professionals
with an ever-broader background and range of skills, including not only technical
knowledge, but also communication and other interpersonal skills." The proposed
program provides a wide breadth of skills, including a depth in Computer Science as well
as knowledge in another field such as Criminal Justice, Communications, or Psychology.
The outlook for IT jobs remains very positive. The BLS identifies jobs in computing to
be one of the fastest growing occupations for 2004 – 2014 [2]. MONEY magazine's
"Top 50 Best Jobs" ranks careers in computing as the best [3]. In addition, this program
will be in direct support of the Carroll Tomorrow Project's goals to enhance the
economic outlook for the west Georgia region [4]. Several local organizations have
indicated their support for the proposed programs (see Appendix A). These organizations
include computer companies, law enforcement agencies, and economic development
organizations.

The proposed program fits well within the mission of the University. The mission of the
University of West Georgia (UWG) states that UWG is committed to areas of excellence;
one such area is "High-quality undergraduate and graduate programs in selected fields
in the Arts and Sciences..." The Bread and Butter Goals emphasize "Regional
collaboration for economic and community development." Clearly, the proposed program
will help fulfill the mission of the institution.

Student Demand in the Region

The Department of Computer Science at the University of West Georgia offers a
traditional, CAC/ABET-accredited Bachelor of Science in Computer Science degree that
emphasizes the theoretical foundations of CS and the application of CS theory to
software development. We have received numerous inquiries from students, and parents,
who are interested in a cross-disciplinary Bachelor of Arts degree in Computer Science.
We have also observed a national trend in computing publications emphasizing the
importance of coupling technical knowledge and skills with interpersonal and
communication skills as well as the knowledge in another field of study. These
publications also stress the need to educate IT professionals for a global economy where the world is indeed "flat" [3, 4, 6].

We have conducted a survey of students in our introductory course in computer science, CS 1300. This course is required for all computer science majors, as well as, other science and mathematics majors (see Appendix B). The results of the survey indicate an overwhelming desire of respondents to have a degree program similar to the program we propose here. In fact, 76%-89% of the respondents, depending on the specialization/track of study, indicated that they might switch majors if such a program was available. The survey results also indicate that 28%-65% of respondents, depending on the specialization/track of study, will switch major if such a program was available. The survey results also indicate that 62% of women respondents and 89% of minority respondents would definitely switch major if such a program was available. The proposed program will attract additional students to UWG. It will also attract a more diverse student body to the Department of Computer Science. Clearly, the above evidence indicates a student demand for the proposed program.

Additional Desirable Qualities

The Department of Computer Science has a significant amount of experience in developing and delivering excellent computer science programs. The department currently offers a CAC/ABET-accredited B.S. in CS program, one of only seven such programs in the State of Georgia. The Department also offers a Master of Science in Applied CS program, and four graduate certificates in computing. The mission of the Department emphasizes educational excellence, scholarship of discovery, of learning and teaching, of integration, and of application. The Department has been innovative in delivering its academic programs. The Department considers the proposed program as a natural step in its evolutionary history.

The Department of Computer Science is housed in the state of art technology enhanced facility, the Technology Learning Center (TLC). The facilities offer students exceptional opportunity to use leading edge technologies. The Department has two teaching studios/classrooms equipped with multimedia/AV equipment and up-to-date computers for each seat. Students have access a general purpose computing lab, and two specialized labs. Students are provided 24/7 access to the labs with their University ID card.

Other Institutions in the State with Similar Programs

There are no programs offered at other Georgia institutions that are similar to the proposed program. However, there are several programs at other Georgia institutions with similar names to the proposed program. These programs are traditional computer science degrees with varying degree of emphasis on traditional and theoretical computer science concepts and topics (see table below). The proposed program is uniquely different from these programs in that it balances technical content with interpersonal/communication skills, and provides opportunities for students to take advantage of computing technology in a cross-disciplinary context.
<table>
<thead>
<tr>
<th>Institution</th>
<th>Program</th>
<th>Differences from Proposed Program</th>
</tr>
</thead>
</table>
| Southern Polytechnic State University | BA in CS | • Substantially similar to a traditional BS in CS program (including traditional math and science requirements)  
  • Requires a minor in international studies  
  • No cross-disciplinary component (other than the international studies minor) |
| Emory University                    | BA in CS | • No cross-disciplinary component  
  • Focus is on programming, not software development  
  • Traditional math and CS theory requirements |
| Kennesaw State University           | BS in ISA| • A Bachelor of Science degree.  
  • Provides a specialization in Information Security and Assurance. |
3. Procedures Used To Develop the Program

The program originated with the faculty of Computer Science in collaboration with the faculty of Criminology, Mass Communications, and Psychology. After discussions with other departments/programs, the Department of Computer Science developed and proposed the program. The proposal, then, follows the normal institutional procedures for approval of new programs. This includes approval of the Executive Committee of the College of Arts and Sciences, the Undergraduate Academic Programs Committee of the Faculty Senate, the Faculty Senate, and the University administration.
4. Curriculum
Program Outcomes

Upon completion of the B.A. in Computer Science, students will be able to:

1. Ability to analyze a problem, and identify and define computing requirements appropriate to its solution.
2. An ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs.
3. Recognize and analyze social, professional, and ethical issues they may face as computing professionals.
4. Prepare and give effective technical presentations.
5. Write clear and accurate technical documents.
6. Apply computing principles and techniques to another area of interest through the completion of a program concentration.
7. Demonstrate their skills in a real-world setting through the completion of a co-op or internship program.

Program of Study

<table>
<thead>
<tr>
<th>CORE Areas A - E</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE Area F</td>
<td>18</td>
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<tr>
<td>Foreign Languages 1002 - 2002</td>
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<tr>
<td>CS 1300: Introduction to Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CS 1301: Computer Science I</td>
<td>3</td>
</tr>
<tr>
<td>CS 1302: Computer Science II (2 of 3 hours)</td>
<td>2</td>
</tr>
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<table>
<thead>
<tr>
<th>Major:</th>
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<tbody>
<tr>
<td>Foundation (required for all students)</td>
<td>29</td>
</tr>
<tr>
<td>CS 2001: Technology Frontiers</td>
<td>3</td>
</tr>
<tr>
<td>CS 3211: Software Engineering I</td>
<td>3</td>
</tr>
<tr>
<td>CS 3212: Software Engineering II</td>
<td>3</td>
</tr>
<tr>
<td>CS 3230: Information Management</td>
<td>3</td>
</tr>
<tr>
<td>CS 4980: Web Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CS 4982: Computing Capstone</td>
<td>3</td>
</tr>
<tr>
<td>CS 4986: Internship</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>ENGL 3405</td>
<td>Professional and Technical Writing</td>
</tr>
<tr>
<td>MATH 3062</td>
<td>Applied Statistics</td>
</tr>
<tr>
<td>MATH 1113</td>
<td>Pre-Calculus (from Area F)</td>
</tr>
<tr>
<td>CS 1302</td>
<td>Computer Science II (1 hour from Area F)</td>
</tr>
</tbody>
</table>

**Tracks** (students must select 1 of the following 31 hour tracks):

### Cyber Forensics and Security Track

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 3110</td>
<td>Systems Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CS 3280</td>
<td>System and Network Administration</td>
<td>3</td>
</tr>
<tr>
<td>CS 4911</td>
<td>Cyber Forensics and Security</td>
<td>3</td>
</tr>
<tr>
<td>CRIM 1100</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRIM 3323</td>
<td>Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CRIM 4911</td>
<td>Terrorism</td>
<td>3</td>
</tr>
<tr>
<td>CRIM 4277</td>
<td>Police in Society</td>
<td>3</td>
</tr>
<tr>
<td>CRIM 4280</td>
<td>Contemporary Issues in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CS approved elective</td>
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### Cyber Media Track

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COMM 3351</td>
<td>Radio Program Production</td>
<td>3</td>
</tr>
<tr>
<td>COMM 3350</td>
<td>Telecommunications and Electronic Media Industries</td>
<td>3</td>
</tr>
<tr>
<td>COMM 4451</td>
<td>Copy Writing for TEM</td>
<td>3</td>
</tr>
<tr>
<td>COMM 3352</td>
<td>Television Production I</td>
<td>3</td>
</tr>
<tr>
<td>COMM 4402</td>
<td>Photojournalism</td>
<td>3</td>
</tr>
<tr>
<td>CS 4320</td>
<td>Human/Computer Interaction</td>
<td>3</td>
</tr>
<tr>
<td>CS approved Electives</td>
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### Software Development Track

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<th>Credits</th>
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<td>CS 3110</td>
<td>Systems Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CS 4320</td>
<td>Human/Computer Interaction</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3200</td>
<td>Introduction to Organization Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3600</td>
<td>Psychology of Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4090</td>
<td>Groups and Group Process</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4500</td>
<td>Explorations in Creativity</td>
<td>3</td>
</tr>
<tr>
<td>CS approved Electives</td>
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<td>13</td>
</tr>
</tbody>
</table>
Sample Plan of Study for Prospective Student

Following is a possible course schedule for a traditional student starting as a freshman, taking classes during consecutive Fall and Spring semesters. A sample schedule is given for each of the three tracks shown above.

Cyber Forensics and Security Track: Possible Course Schedule

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>14/15</td>
<td>CS 1300 (4)</td>
<td>CS 1301 (3)</td>
</tr>
<tr>
<td></td>
<td>MATH 1113 (4)</td>
<td>FORL 1002-2002 (3)</td>
</tr>
<tr>
<td></td>
<td>ENGL 1101 (3)</td>
<td>ENGL 1102 (3)</td>
</tr>
<tr>
<td></td>
<td>POLS 1101 (3)</td>
<td>HIST 1111/1112 (3)</td>
</tr>
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<td></td>
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<td>Area C.1 (3)</td>
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<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>15/16</td>
<td>CS 1302 (3)</td>
<td>CS 3211 (3)</td>
</tr>
<tr>
<td></td>
<td>CS 3100 (3)</td>
<td>CS 2001 (3)</td>
</tr>
<tr>
<td></td>
<td>FORL 1002-2002 (3)</td>
<td>Area D.1 (4)</td>
</tr>
<tr>
<td></td>
<td>Area D.2 (3)</td>
<td>CRIM 3323 (3)</td>
</tr>
<tr>
<td></td>
<td>CRIM 1100 (3)</td>
<td>HIST 2111/2112 (3)</td>
</tr>
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<table>
<thead>
<tr>
<th>Junior</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>15/15</td>
<td>FORL 1002-2002 (3)</td>
<td>CS Elective (3)</td>
</tr>
<tr>
<td></td>
<td>CS 3212 (3)</td>
<td>CS 3260 (3)</td>
</tr>
<tr>
<td></td>
<td>CRIM 4277 (3)</td>
<td>CRIM 4280 (3)</td>
</tr>
<tr>
<td></td>
<td>Area C.2 (3)</td>
<td>Math 3062 (3)</td>
</tr>
<tr>
<td></td>
<td>Area B.1 (3)</td>
<td>ENGL 3405 (3)</td>
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<table>
<thead>
<tr>
<th>Senior</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>15/15</td>
<td>CS 4980 (3)</td>
<td>CS 4982 (3)</td>
</tr>
<tr>
<td></td>
<td>CS 3230 (3)</td>
<td>CS 4986 (3)</td>
</tr>
<tr>
<td></td>
<td>CRIM 4911(3)</td>
<td>CRIM Elective (3)</td>
</tr>
<tr>
<td></td>
<td>Area D.1 (3)</td>
<td>Area E.4 (3)</td>
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<td></td>
<td>Elective (3)</td>
<td>Area B.2 (2)</td>
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<tr>
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Cyber Media Track: Possible Course Schedule

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<th>Spring</th>
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</thead>
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<tr>
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<td>CS 1300 (4)</td>
<td>CS 1301 (3)</td>
</tr>
<tr>
<td></td>
<td>MATH 1113 (4)</td>
<td>FORL 1002-2002 (3)</td>
</tr>
<tr>
<td></td>
<td>ENGL 1101 (3)</td>
<td>ENGL 1102 (3)</td>
</tr>
<tr>
<td></td>
<td>POLS 1101 (3)</td>
<td>HIST 1111/1112 (3)</td>
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<tr>
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</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
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<th>Spring</th>
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<tbody>
<tr>
<td>15/16</td>
<td>CS 1302 (3)</td>
<td>CS 3211 (3)</td>
</tr>
<tr>
<td></td>
<td>HIST 2111/2112 (3)</td>
<td>CS 2001 (3)</td>
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<tr>
<td></td>
<td>FORL 1002-2002(3)</td>
<td>Area D.1 (4)</td>
</tr>
<tr>
<td></td>
<td>Area D.2 (3)</td>
<td>COMM 3351(3)</td>
</tr>
<tr>
<td></td>
<td>COMM 1154(3)</td>
<td>FORL 1002-2002(3)</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------</td>
<td>-------------------</td>
</tr>
<tr>
<td><strong>Junior</strong> 15/15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td><strong>Fall</strong></td>
<td><strong>Spring</strong></td>
</tr>
<tr>
<td></td>
<td>COMM 3350(3)</td>
<td>CS Elective (3)</td>
</tr>
<tr>
<td></td>
<td>CS 3212 (3)</td>
<td>CS 3260 (3)</td>
</tr>
<tr>
<td></td>
<td>COMM 3352 (3)</td>
<td>Math 3062 (3)</td>
</tr>
<tr>
<td></td>
<td>COMM 3301(3)</td>
<td>ENGL 3405 (3)</td>
</tr>
<tr>
<td></td>
<td>CS 4230(3)</td>
<td>COMM 4402 (3)</td>
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<td><strong>Senior</strong> 15/15</td>
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<tr>
<td>Fall</td>
<td><strong>Fall</strong></td>
<td><strong>Spring</strong></td>
</tr>
<tr>
<td></td>
<td>CS 4980 (3)</td>
<td>CS 4982 (3)</td>
</tr>
<tr>
<td></td>
<td>CS 3230 (3)</td>
<td>CS 4986 (3)</td>
</tr>
<tr>
<td></td>
<td>Area B.1 (3)</td>
<td>Area D.1 (3)</td>
</tr>
<tr>
<td></td>
<td>COMM 4451(3)</td>
<td>Area E.4 (3)</td>
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<td>HIST 1111/1112 (3)</td>
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<tr>
<td></td>
<td></td>
<td>Area C.1 (3)</td>
</tr>
</tbody>
</table>

**Software Development Track: Possible Course Schedule**

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong> 14/15</td>
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</tr>
<tr>
<td>Fall</td>
<td>CS 1300 (4)</td>
<td>CS 1301 (3)</td>
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<td>MATH 1113 (4)</td>
<td>FORL 1002-2002 (3)</td>
</tr>
<tr>
<td></td>
<td>ENGL 1101 (3)</td>
<td>ENGL 1102 (3)</td>
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<tr>
<td></td>
<td>POLS 1101 (3)</td>
<td>HIST 1111/1112 (3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Area C.1 (3)</td>
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<tr>
<td><strong>Sophomore</strong> 15/16</td>
<td></td>
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</tr>
<tr>
<td>Fall</td>
<td>CS 1302 (3)</td>
<td>CS 3211 (3)</td>
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<tr>
<td></td>
<td>CS 3100 (3)</td>
<td>CS 2001 (3)</td>
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<tr>
<td></td>
<td>FORL 1002-2002(3)</td>
<td>Area D.1 (4)</td>
</tr>
<tr>
<td></td>
<td>Area D.2 (3)</td>
<td>PYS L3200(3)</td>
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<tr>
<td></td>
<td>PYS C 1101(3)</td>
<td>HIST 2111/2112 (3)</td>
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<tr>
<td><strong>Junior</strong> 15/15</td>
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<tr>
<td>Fall</td>
<td>FORL 1002-2002 (3)</td>
<td>CS Elective (3)</td>
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<td></td>
<td>CS 3212 (3)</td>
<td>CS 3260 (3)</td>
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<td></td>
<td>CS 4230 (3)</td>
<td>PYS C 3600(3)</td>
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<td></td>
<td>Area C.2 (3)</td>
<td>Math 3062 (3)</td>
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<td></td>
<td>Area B.1 (3)</td>
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<td><strong>Senior</strong> 15/15</td>
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<td>CS 4982 (3)</td>
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<td></td>
<td>CS 3230 (3)</td>
<td>CS 4986 (3)</td>
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<tr>
<td></td>
<td>PYS C 4500(3)</td>
<td>CS Elective (3)</td>
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<td>Area D.1 (3)</td>
<td>PSY C 4909(3)</td>
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<td>Elective (3)</td>
<td>Area B.2 (2)</td>
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<td>CS Elective (1)</td>
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<tr>
<td><strong>Freshman</strong> 14/15</td>
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</tr>
<tr>
<td>Fall</td>
<td>CS 1300 (4)</td>
<td>CS 1301 (3)</td>
</tr>
<tr>
<td></td>
<td>MATH 1113 (4)</td>
<td>FORL 1002-2002 (3)</td>
</tr>
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</table>

Formal Proposal  
Bachelor of Arts  
Computer Science  
Page: 12 of 43  
College of Arts & Sciences  
University of West Georgia
Existing and New Courses

All courses listed above in the Program of Study are existing courses except the following. Course descriptions and pre-requisites for these are included in Appendix C:

- CS 2001: Technology Frontiers
- CS 4986: Internship
- CS 4911: Cyber Forensics and Security

Course Descriptions and Pre-Requisites

See Appendix D for course descriptions and pre-requisites for existing courses.

Internship Availability, Assignment, and Supervision

The proposed program includes a required (1-semester, 3 credit hour) internship experience. The course used for this purpose is CS 4986 (Computing Internship). The student will normally register for this course with her/his academic advisor serving as the instructor for the course. The Faculty advisor and the student will discuss and make arrangements to provide the student with an internship opportunity based on her/his area of concentration and interest. The student will be placed at a local company/organization as appropriate. The Faculty advisor, in consultation with the field supervisor, will assess the student’s experience and evaluate the student’s performance. The Faculty advisor will make the final grade determination. A student, with the approval of the Faculty advisor, may make arrangements to find an appropriate internship opportunity suitable for her/his interest.
5. Inventory of Faculty Directly Involved

The following table lists the computer science Faculty who will be directly involved in the delivery of the proposed program. Their responsibilities will include teaching, advising students, and program review and assessment. For details on the scholarship and publication records and professional activities for each of the Faculty listed below, please visit the web link provided below.

<table>
<thead>
<tr>
<th>Name</th>
<th>Rank</th>
<th>Degree/Institutions, Web link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adel M. Abunawass</td>
<td>Professor and Chair</td>
<td>Ph.D. (Computer Science) North Dakota State University <a href="http://www.cs.westga.edu/People/AdelAbunawass">http://www.cs.westga.edu/People/AdelAbunawass</a></td>
</tr>
<tr>
<td>Jeanette Allen</td>
<td>Lecturer</td>
<td>Ph.D. (Computer Science) Georgia Institute of Technology <a href="http://www.cs.westga.edu/People/JeanetteAllen">http://www.cs.westga.edu/People/JeanetteAllen</a></td>
</tr>
<tr>
<td>Lewis B. Baustark</td>
<td>Assistant Professor</td>
<td>Ph.D. (Electrical and Computer Engineering) Georgia Institute of Technology <a href="http://www.cs.westga.edu/People/LewisBaustark">http://www.cs.westga.edu/People/LewisBaustark</a></td>
</tr>
<tr>
<td>Mitchell H. Clifton</td>
<td>Assistant Professor</td>
<td>M.S. (Computer Science) University of Illinois, Urbana-Champaign <a href="http://www.cs.westga.edu/People/MitchClifton">http://www.cs.westga.edu/People/MitchClifton</a></td>
</tr>
<tr>
<td>Will Lloyd</td>
<td>Associate Professor</td>
<td>Ph.D. (Computer Science) The College of William &amp; Mary <a href="http://www.cs.westga.edu/WillLloyd">http://www.cs.westga.edu/WillLloyd</a></td>
</tr>
<tr>
<td>Jeff Matocha</td>
<td>Associate Professor</td>
<td>Ph.D. (Computer Science) University of Alabama, Tuscaloosa <a href="http://www.cs.westga.edu/People/JeffMatocha">http://www.cs.westga.edu/People/JeffMatocha</a></td>
</tr>
<tr>
<td>Muhammad Rahman</td>
<td>Assistant Professor</td>
<td>Ph.D. (Computer Science) Illinois Institute of Technology <a href="http://www.cs.westga.edu/People/MuhammadRahman">http://www.cs.westga.edu/People/MuhammadRahman</a></td>
</tr>
<tr>
<td>Anja Remshagen</td>
<td>Assistant Professor</td>
<td>Ph.D. (Computer Science) University of Texas, Dallas <a href="http://www.cs.westga.edu/People/AnjaRemshagen">http://www.cs.westga.edu/People/AnjaRemshagen</a></td>
</tr>
<tr>
<td>Daniel Rocco</td>
<td>Assistant Professor</td>
<td>Ph.D. (Computer Science) Georgia Institute of Technology <a href="http://www.cs.westga.edu/People/DanielRocco">http://www.cs.westga.edu/People/DanielRocco</a></td>
</tr>
<tr>
<td>Li Yang</td>
<td>Assistant Professor</td>
<td>Ph.D. (Computer Science) Florida Institute of Technology <a href="http://www.cs.westga.edu/People/LiYang">http://www.cs.westga.edu/People/LiYang</a></td>
</tr>
</tbody>
</table>
| Duane Yoder | Assistant Professor | Ph.D. (Computer Science)  
<table>
<thead>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Vanderbilt University</td>
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<tr>
<td></td>
<td></td>
<td><a href="http://www.cs.westga.edu/People/DuaneYoder">http://www.cs.westga.edu/People/DuaneYoder</a></td>
</tr>
</tbody>
</table>
6. Outstanding Programs at Other Institutions

The proposed program represents a unique approach to the equally unique challenge of educating future IT professionals. As such, programs that have similarities to those proposed for the Cyber Media and Software Development Tracks do not exist. Several universities have added degree programs with goals similar to the Cyber Forensics and Security Track, possibly due to the recent surge in interest in forensics and security, as well as employment opportunities offered by the Department of Homeland Security and other law enforcement/government agencies. This section describes the programs that match most closely the program being proposed.

Programs with Similarities to the Cyber Forensics and Security Track:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Type</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Rhode Island</td>
<td>Public</td>
<td>Offers a Bachelor of Art in Computer Science and an associated Minor in Computer Forensics that resembles the program described in this proposal. Advertises B.A. as a “less math intensive program for students focusing on business careers.” The interdisciplinary minor includes ten hours of criminalistics or law, statistics, and crime or law related psychology/sociology coursework, two computer forensics courses, and an Internship in Computer Forensics. Anecdotally, URI notes that many women find the Computer Forensics minor attractive.</td>
</tr>
<tr>
<td>Kingston, Rhode Island, USA</td>
<td></td>
<td></td>
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<tr>
<td>Dr. Victor Fay-Wolfe, Digital Forensics Program Director Phone: 401-874-2701</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern Utah University</td>
<td>Public</td>
<td>Offers a Bachelor of Science, Emphasis in Forensic Science. The program includes four lower-level criminal justice courses, two computer forensics courses, and an internship course. Their upper-level electives allow a student to choose among computer science or forensic related criminal justice offerings.</td>
</tr>
<tr>
<td>Cedar City, UT, USA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Nasser Tadayon, Chair of Computer Science and Information Systems Phone: 435-865-8634</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waynesburg College</td>
<td>Public</td>
<td>Offers a Computer Forensics major. The program contains fewer math courses than their traditional Computer Science major. Aside from the required computer security course, the major relies primarily on Criminal Justice courses. In addition, the program requires an internship course.</td>
</tr>
<tr>
<td>Waynesburg, PA, USA</td>
<td></td>
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</tr>
<tr>
<td>Dr. Richard Leipold, Chair of the Dept. of Mathematics, Computer Science and Physics Phone: (724) 852-3291</td>
<td></td>
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</tbody>
</table>
Programs with Similarities to the Cyber Media Track:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Type</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taylor University</td>
<td>Private</td>
<td>Offers a Bachelor of Arts in Computer Science – New Media. The CS – New Media program includes coursework from Computer Science, including several media specific courses (e.g., Graphics, Animation), and Communications as well as from Visual Arts. The program requires students to take a Practicum, described as “supervised learning involving a first-hand field experience or a project”, a Senior Project, and a CS Senior Capstone. Although similar, Taylor’s program focuses more on the artistic aspects of media, where the proposed program is more oriented toward news media.</td>
</tr>
<tr>
<td>Upland, Indiana, USA</td>
<td></td>
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</tr>
<tr>
<td>Dr. Bill Toll, Chair of Computing and System Sciences Department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone: 765-998-4931</td>
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</table>

Software Development Track:

Our Software Development Track least resembles other universities’ existing programs. Many departments offer software engineering degrees that focus primarily on the development process and best practices. Other Computer Science programs exist that include a large number of Psychology courses to prepare students for the human/computer interaction (HCI) aspect of development. Most of these programs require a Computer Science course in HCI.

The Software Development Track proposed here contains the bulk of the department’s software development coursework, augmented by several Psychology courses to ensure that graduates will have good communication skills and an understanding of group dynamics and teamwork.
7. Inventory of Pertinent Library Resources

The Irvine Sullivan Ingram Library provides a first rate services to the institution. The current library resources provide for a strong base to support the proposed program [8]. The ACM Digital Library is perhaps one of the most important resources for the proposed program. No additional library resources are needed to support the proposed program.
8. Prospective Students

The proposed program will be open to all students who meet the admission standards for the University. This program seeks to attract a different student than those for our BS in CS program. In this way, it does not seek to compete with the BS, but rather to complement it by offering such students an educational experience that gives them solid technical knowledge and skills as well as cross-disciplinary knowledge in an area of specialization. Thus, it is expected that students entering the proposed program would otherwise not have chosen to major in the B.S. in CS program. Moreover, students who choose the B.S. in CS as a major would likely not choose the proposed program due to their interest in the more traditional, theoretical, and in-depth technical aspects of computer science.

The program will serve the growing region of west Georgia and the Atlanta metro area. The cross-disciplinary nature of the program should attract a more diverse population of students, including women and minorities. Extrapolating on the results of our survey (see Appendix B), we anticipate about half of the student body of the proposed program to be composed of women and minorities. In addition, evidence has shown that women tend to have less of an interest in the study of computers as entities in and of themselves, and that women are "more interested in what computers can do for the sciences, the arts, and society." [9]
9. Facilities

The Department of Computer Science maintains a comprehensive academic computing infrastructure to support the teaching and research needs of our current undergraduate and graduate programs. Labs are equipped with current technologies, and provide a heterogeneous computing environment intended to give students the opportunity to learn and experiment with a wide variety of hardware and software tools commonly used in industry. UNIX, Microsoft, and Mac OS X platforms are supported and have a large collection of software tools available. In addition to several free/open-source tools, the Department is also a member of the Microsoft Developer Network Academic Alliance program, which provides several thousand dollars worth of Microsoft operating systems, development tools, and other packages free of charge to students to use in the labs as well as install on their personal computers.

The Department has a total of six labs: two teaching studios, one general computing lab, one peer-tutoring lab, and two specialized labs, with a total workstation count of approximately 100 machines. The teaching studios and general computing labs are all equipped with multi-media enhancements for use in teaching and for presentations and discussions. The general computing and specialized labs are equipped with card access systems that allow eligible students 24/7 access, providing students with flexibility in using our facilities at their convenience. Many resources are also remotely accessible via the Internet. These resources are sufficient to meet the demand of the proposed program.
10. Administration

The program will be housed in the Department of Computer Science under the College of Arts & Sciences. The Chair of the Department of Computer Science will administer the proposed program. The Undergraduate Curriculum Committee (a standing committee established in the Department’s bylaws) will facilitate the assessment and review of the curriculum. The Faculty of the Department of Computer Science shall serve as advisers to students enrolled in the program. A Student Advisory Committee shall be created to address ongoing students’ needs and communicate them to the Chair of the Department.
11. Assessment

The proposed program will be assessed via informal and formal procedures. Informal procedures include:

- Round-table meetings with students and faculty
- Periodic surveys of students' needs and progress.

Formal methods include, but are not limited to:

- Student evaluations of instruction for specific courses
- Faculty and curriculum committee assessment reports
- Program reviews
- Exit interviews of graduates
- Alumni and employer surveys

The assessment of the proposed program will also be heavily influenced by the rigorous assessment standards that are required for the existing CAC/ABET accredited B.S. in Computer Science. Since many of the courses required for the B.S. in CS program are also required for the proposed program, the existing formal process used to assess those courses will also be utilized as part of the assessment process for the proposed program. These procedures include:

- Close examination of course content and evaluated student work by the course instructor to ensure consistency with course outcomes and the degree to which a course effectively achieved its defined outcomes
- Peer review among the Faculty (via the Department's Undergraduate Curriculum Committee) of the individual course assessments mentioned above to include an additional level of review, assessment, and recommendations/opportunities for improvement.
- Incorporation of student surveys (and other informal student feedback) and individual faculty/committee course assessment results and recommendations in an overall assessment of the degree to which the program (through its component courses) is meeting the stated outcomes.
- Actions taken, based upon course and program assessment, to continuously improve the quality of the program.
12. Accreditation

There is no specific accrediting agency for the proposed program.
13. Affirmative Action Impact

The University of West Georgia is an Affirmative Action/Equal Opportunity Institution. The proposed program will have a positive impact on the institution's affirmative action program. The Department is made up of very diverse faculty, staff, and students. Out of the eleven faculty members, three are females, one Asian, and one African heritage. One of the Staff in the Department is of Latino heritage. Based on the results of our survey (see Appendix B), we expect half of the student body to be women and minorities.
14. Degree Inscription

The degree inscription shall be: Bachelor of Arts with a major in Computer Science, with a Track designation of: Cyber Forensics, Cyber Media, and Software Development. CIP Code: 11.0202.
15. Fiscal and Enrollment Impact, Budget

The Department of Computer Science is not requesting new resources to launch this program. However, as the enrollment increases, there may be a need to reallocate future resources. This is especially true for our partner departments/programs. Therefore, as the enrollment in the proposed program increases, future re/allocation of resources should be planned to assist the departments of Psychology, Sociology & Criminology, and Mass Communications and Theater Arts.

### Enrollment Projection and Degree Awarded:

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<th>FY 2010 Third Year</th>
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<tr>
<td>2. New to the institution</td>
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<td>60</td>
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<tr>
<td>Total Majors</td>
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<td>75</td>
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<td>Degree Awarded</td>
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<td>15</td>
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<tr>
<td></td>
<td>Yr 2</td>
<td>Yr 3</td>
<td>Yr 4</td>
</tr>
</tbody>
</table>
References:
7. http://www.pcmag.com/article2/0,1759,1610398,00.asp
Appendix A. Letters of Support
March 19, 2007

Adel M. Abunawass; Ph.D.
University of West Georgia
Department of Computer Science
Carrollton, GA 30118-2310

Dear Dr. Abunawass:

We definitely support your proposal to establish a BA in CS at the University of West Georgia. Your proposal fits closely with our strategies to attract industries such as software development, web development, and computer/network security. However, our efforts to recruit high-paying employers such as these to our community are predicated upon our area's ability to educate or attract the knowledge workers that these firms require.

In addition, our new small business incubator, The Burson Center, hopes to serve entrepreneurs capitalizing on these same technologies. Your proposed program helps create the critical mass of creative, skilled people necessary to make the Center a resounding success.

Please let me know how Carroll Tomorrow can further support this important proposal.

Sincerely,

[Signature]

Slater Barr
CEO
February 6, 2007

Dr. Adel M. Abunawass  
Department of Computer Science  
University of West Georgia  
Carrollton, GA 30118

Dear Dr. Abunawass,

I am writing this letter in support of a new degree program in the Department of Computer Science at the University of West Georgia. I believe the following tracks; Cyber/Computer forensics & security, Web technologies, and software development, which you wrote in your letter to me, will be a great asset to the community. The Carrollton Police Department over the years has purchased equipment and sent personnel to training for computer forensics and how to investigate a wide variety of computer crimes. With this program being inside the City of Carrollton I can see our department partnering with the University of West Georgia to receive further training. I also can see our department helping you and your staff know what the current trends are that is facing the investigation of computer crimes and what we at the police department are doing to investigate the crimes. This will help your students learn real life issues that are going on right here in Carrollton and better prepare them for their future employment. If you need anything in the future just let us know. I look forward to working with you and your staff.

Sincerely,

Blake Hitchcock  
Detective  
bhitchcock@carrollton-ga.gov
January 30, 2007

Mr. Joel Richards
Carrollton Police Department
115 West Center Street
Carrollton, GA 30117

Dear Mr. Richards;

I am writing to solicit your support for our proposal to establish a new degree program in the Department of Computer Science at the University of West Georgia. The proposed program is a Bachelor of Arts in Computer Science (BA in CS). The proposed BA in CS degree program will initially consist of three distinct tracks, each focusing on a distinct area of technical specialization. The tracks are: Cyber/Computer Forensics & Security, Web Technologies, and Software Development. Graduates will be prepared to pursue careers in several specialized technical areas such as cyber/digital forensics, computer/network security, web development and web content management, and software development. Graduates of the program will be prepared to seek employment in many diverse professions and fields, such as law enforcement and justice administration, banking, software development, digital media, cyber-journalism, and Internet/web services. The proposed program will help enhance the economic outlook for the west Georgia region, and provide for highly skilled workers to meet the demands of the 21st century.

I know you are very busy. We appreciate your support for our proposal. I have left the remainder of this page blank, giving you space to write a note of support for our proposal, and included a self-addressed stamped envelope for your convenience. Your timely reply is appreciated.

If you have questions, please do not hesitate to contact me. Thank you for your support.

Sincerely;

Adel M. Abunawass; Ph.D.
Professor & Chair
adel@westga.edu
678-839-6652

Dr. Abunawass,

I absolutely very much support your endeavor for this program. We are not only seeing a new trend in the way crimes are committed; computers, we can hardly keep up with the case load generated from computer based crimes. If I can help in any other way, please feel free to call me.

Joel
January 30, 2007

Sheriff Terry Langley  
Carroll County Sheriff's Office  
1000 Newnan Road  
Carrollton, GA 30116

Dear Sheriff Langley;

I am writing to solicit your support for our proposal to establish a new degree program in the Department of Computer Science at the University of West Georgia. The proposed program is a Bachelor of Arts in Computer Science (BA in CS). The proposed BA in CS degree program will initially consist of three distinct tracks, each focusing on a distinct area of technical specialization. The tracks are: Cyber/Computer Forensics & Security, Web Technologies, and Software Development. Graduates will be prepared to pursue careers in several specialized technical areas such as cyber/digital forensics, computer/network security, web development and web content management, and software development. Graduates of the program will be prepared to seek employment in many diverse professions and fields, such as law enforcement and justice administration, banking, software development, digital media, cyber-journalism, and Internet/web services. The proposed program will help enhance the economic outlook for the west Georgia region, and provide for highly skilled workers to meet the demands of the 21st century.

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If you have questions, please do not hesitate to contact me. Thank you for your support.

Sincerely;

[Signature]

Adel M. Abunawass; Ph.D.  
Professor & Chair  
adel@westga.edu  
678-839-6652

I am in very much support of your program. In all career fields, I see education as power and have seen that those who choose to participate far exceed those who don’t. If I can be of further assistance, please call.

Terry E. Langley

Tel 678-839-6485 • Fax 678-839-6486 • www.cs.westga.edu
The University System of Georgia • Affirmative Action/Equal Opportunity Institution
February 8, 2007

Mr. Tee Green
Greenway Medical Technologies
121 Greenway Boulevard
Carrollton, GA 30117

Dear Mr. Green,

I am writing to solicit your support for our proposal to establish a new degree program in the Department of Computer Science at the University of West Georgia. The proposed program is a Bachelor of Arts in Computer Science (BA in CS). The proposed BA in CS degree program will initially consist of three distinct tracks, each focusing on a distinct area of technical specialization. The tracks are: Cyber/Computer Forensics & Security, Web Technologies, and Software Development. Graduates will be prepared to pursue careers in several specialized technical areas such as cyber/digital forensics, computer/network security, web development and web content management, and software development. Graduates of the program will be prepared to seek employment in many diverse professions and fields, such as law enforcement and justice administration, banking, software development, digital media, cyber-journalism, and Internet/web services. The proposed program will help enhance the economic outlook for the west Georgia region, and provide for highly skilled workers to meet the demands of the 21st century.

I know you are very busy. We appreciate your support for our proposal. I have left the remainder of this page blank, giving you space to write a note of support for our proposal, and included a self-addressed stamped envelope for your convenience. Your timely reply is appreciated.

If you have questions, please do not hesitate to contact me. Thank you for your support.

Sincerely,

Adel M. Abunawass, Ph.D.
Professor & Chair
adel@westga.edu
678-839-6652

Add:

Sincerely with a great program!

[Signature]
February 8, 2007

Ms. Cathy Guillebeau
Comnetix, Inc.
110 Adamson Square Suite B
Carrollton, GA 30117

Dear Ms. Guillebeau;

I am writing to solicit your support for our proposal to establish a new degree program in the Department of Computer Science at the University of West Georgia. The proposed program is a Bachelor of Arts in Computer Science (BA in CS). The proposed BA in CS degree program will initially consist of three distinct tracks, each focusing on a distinct area of technical specialization. The tracks are: Cyber/Computer Forensics & Security, Web Technologies, and Software Development. Graduates will be prepared to pursue careers in several specialized technical areas such as cyber/digital forensics, computer/network security, web development and web content management, and software development. Graduates of the program will be prepared to seek employment in many diverse professions and fields, such as law enforcement and justice administration, banking, software development, digital media, cyber-journalism, and Internet/web services. The proposed program will help enhance the economic outlook for the west Georgia region, and provide for highly skilled workers to meet the demands of the 21st century.

I know you are very busy. We appreciate your support for our proposal. I have left the remainder of this page blank, giving you space to write a note of support for our proposal, and included a self-addressed stamped envelope for your convenience. Your timely reply is appreciated.

If you have questions, please do not hesitate to contact me. Thank you for your support.

Sincerely:

[Signature]

Adel M. Abunawass; Ph.D.
Professor & Chair
adel@westga.edu
678-839-6652

ComnetiX, Inc. SE supports the proposal for the degree program, Bachelor of Arts in Computer Science. ComnetiX, Inc. SE is a law enforcement software company and could use the talent a degree program such as this would produce.

[Signature]

Cathy Guillebeau
Engineering Manager
ComnetiX, Inc. SE
Appendix B. Student Survey

Survey Form

Do not write your name on this sheet!

Do not detach this sheet from the packet!

1. How many years have you been in college?  
   0-1  1-2  2-3  3-4  4-5  5+

2. What is your major?

3. What is your gender (Circle one)? Female Male

4. What is your ethnic heritage? Asian Black Hispanic Native American White Other

5. Are you planning to complete a minor program or second major? If so, in what area?

6. Do you plan to work as a co-op or intern while in school? Yes No

7. Suppose UWG offered a Bachelor of Arts in Computer Science degree that emphasized solving real-world problems with computers and technology. This program would integrate computing with other majors on campus, provide the opportunity to study interesting areas in computing, and require students to interact with people through presentations, internships, and cross-disciplinary courses. Students would be required to select an area of specialization and would have the opportunity to complete a minor or double major in another area.

   Please rate your interest in the following Bachelor of Arts in Computer Science specialization areas by rating each on a scale from 1 to 4:

   1 = I would not be interested in this program.
2 = This program sounds okay, but I would probably not switch my major.
3 = I am interested and would consider switching my major to this program.
4 = I am very interested and would definitely switch my major to this program.

Bachelor of Arts in Computer Science:

1 2 3 4 specialization in Cyber Forensics and Digital Law
1 2 3 4 specialization in Cyber Media and Gaming Studies
1 2 3 4 specialization in Digital Entrepreneurship and Cyber Business
1 2 3 4 specialization in Geographic Information Systems and Data Mining
1 2 3 4 specialization in Software Development and Project Management
1 2 3 4 Student Proposed Program of Study

Raw Results

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Formal Proposal
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Formal Proposal
Bachelor of Arts
Computer Science
Appendix C. New Courses

NOTE: The following new courses, CS 2001, 4986, and 4911 are pending approval by the UWG Faculty Senate.

CS 2001 - Technology Frontiers

Number: CS 2001
Title: Technology Frontiers
Credit: 2/2/3
Pre-requisite: Permission of Department required.

Catalog Description

This course will discuss milestones in the history of computing while exploring and evaluating a variety of current and innovative computing applications. Students will solve a variety of simple problems designed to demonstrate the impact of computing as a problem-solving medium. Students will deliver an effective presentation related to topics covered in the course. Professional computing societies and organizations, as well as current trends in the computing job market will be discussed.

Learning Outcomes

1. Discuss significant milestones in the history of computing.
2. Construct a clear written solution to a simple problem.
3. Develop and give a short, effective class presentation.
4. Discuss computing as a profession, including current trends in job market, and professional societies and organizations.
5. Explore a variety of computing applications.
6. Evaluate a unique application of computing as an application to solve a problem we encounter daily.

Units

1. History
   Discuss milestones in computing by reviewing: textbooks; web sites; DVD; Public TV shows; etc. Students will give a presentation and write a term paper on a milestone in the history of computing.

2. Problem Solving
   Students are asked to develop written solution to simple problems. This could be done as a team/group building exercise. Some of the problems may include: tower of Hanoi; 8-puzzle; etc. Students will also develop very simple computer programs in a variety of simple environments (i.e. Lego Robots, Logo, SiMPLE).
3. Applications  
Explore and use unique and innovative applications of computing (i.e. Google Maps, Wikipedia, iPods, MySpace, etc.). Students will keep journal entries documenting their experiences with the applications. The final journal entry will include a thorough evaluation of the applications.

4. Job Markets  
What do computing professionals do? What organizations are there to support the profession? Students will attend presentations with local computing professionals. Students will also examine the various curricula options available to them.

Textbooks/Reference Material

- A number of DVD of TV shows and movies.

Assignment Types

- Several journal entries for the review and evaluation of a selected computing application.  
- Presentation  
- Term Paper  
- Teamwork (team building exercises)  
- Problem solving & programming

Graded Work

- Teamwork (20%)  
- Presentation & Paper (25%)  
- Problem Solving & Programming (25%)  
- Journal Reports (20%)  
- Exam/Quizzes (10%)
CS 4986 - Computing Internship

Number: CS 4986  
Title: Computing Internship  
Credit: 3/0/3  
Pre-requisite: Junior or Senior status and permission of the Department

Catalog Description

A hands-on, supervised field experience in computing. Students will create and present a comprehensive portfolio documenting the field experience. May be repeated for a total of 6 hours.

Learning Outcomes

1. Discuss practical field experience as it relates to the program of study. 
2. Develop and give a public presentation related to field experience. 
3. Evaluate and reflect on field experience by the use of a portfolio.

Graded Work

- Faculty/Supervisor Evaluation (50%)  
- Presentation (25%)  
- Portfolio (25%)

Additional Information:

The Faculty advisor and the student will discuss and make arrangements to provide the student with an internship opportunity based on her/his area of concentration and interest. The student will be placed at a local company/organization as appropriate. The Faculty advisor, in consultation with the field supervisor, will assess the student’s experience and evaluate the student’s performance. The Faculty advisor will make the final grade determination. A student, with the approval of the Faculty advisor, may make arrangements to find an appropriate internship opportunity suitable for her/his interest.
CS 4911: Cyber Forensics and Security

Number: CS 4911
Title: Cyber Forensics and Security
Credit: 2/2/3
Pre-requisite: CS 3280

Catalog Description

This course explores crimes involving computers and computer networks, with an emphasis on the technology used to perform such crimes and the technology used to detect, prevent, and document them. Topics include evidence gathering and analysis, intrusion detection and response, data hiding techniques, common digital crimes and profiles of perpetrators, legal testimony, and report writing. The course will include a review of relevant computer networking and file systems concepts.

Learning Outcomes

1. Discuss procedures as well as the legal and ethical responsibilities for evidence handling, documentation and reporting, and presentation in court.
2. Apply techniques for intrusion detection and demonstrate knowledge of procedures for incident response.
3. Apply knowledge of computer systems, networking, and standard application behaviors in the process of evidence gathering from a computer system.
4. Analyze file system images and system/network logs, for the purposes of evidence gathering, using current/commonly used software tools.
5. Demonstrate an ability to apply methodologies and tools to recover hidden, encrypted, and/or "deleted" data.
6. Identify common types of digital crime, profiles of computer criminals, and discuss non-technical aspects of cyber-crime, such as social engineering.

Units

1. Introduction to Cyber Forensics (1 week)
   Common types of digital crimes; basic legal issues; profiles of computer criminals
2. Collection and analysis of data from hosts (3 weeks)
   Forensic duplication; review of file systems; analysis of data from memory, disk, and applications
3. Collection and analysis of network data (2 weeks)
   Review of networking concepts; intrusion detection, network taps, logging; honeypots/honeynets
4. Introduction to Computer Forensic tools (1 week)
   Encase; The Coroner's Toolkit (TCT), The Sleuth Kit (TSK), Snort
5. Evidence handling, documentation, and reporting (interlaced as appropriate throughout the course) (2 weeks)
6. Non-technical aspects of computer crimes (1 week)
   Social engineering; chassis traps, self-destruct mechanisms
7. Data hiding mechanisms (1 week)
   Encryption; steganography; network tunneling
8. Court testimony and report writing (2 weeks)
9. Laws regarding digital evidence (2 weeks)

Possible Textbooks


Reference Material


Assignment Types

- Projects utilizing tools (e.g., Encase, The Coroner’s Toolkit (TCT), The Sleuth Kit (TSK), Snort) on provided data with written reports based on project findings
- Written assignments on current articles
- Presentation (possibly performed as a mock legal testimony)
- Exams

Graded Work

- Laboratory reports (40%)
- Written assignments (15%)
- Presentations (15%)
- Exams (30%)
Appendix D. Course Descriptions for Existing Courses

COMPUTER SCIENCE COURSES

CS 1300 Introduction to Computer Science
Credit: 3/2/4
This course introduces two fundamental aspects of computer science – abstraction and design - as students learn to develop programs in a high-level programming language. Students will study and implement a variety of applications, including graphics and scientific simulations. The course assumes no prior background in programming or computer science.

CS 1301 Computer Science I
Credit: 2/2/3
Prerequisite: CS 1300 or Departmental Consent
This course explores the three fundamental aspects of computer science - theory, abstraction, and design - as the students develop moderately complex software in a high-level programming language. It will emphasize problem solving, algorithm development, and object-oriented design and programming. The course assumes prior experience in programming.

CS 1302 Computer Science II
Credit: 2/2/3
Prerequisite: CS 1301 with a minimum grade of C
This course continues the exploration of theory, abstraction, and design in computer science as the students develop more complex software in a high-level programming language.

CS 3110 Systems Architecture
Credit: 2/2/3
Prerequisite or Co-requisite: CS 1302
An introduction to systems architecture and its impact on software execution. Topics include digital logic and digital systems, machine level representation of data, assembly level machine organization, memory systems organization, I/O and communication, and CPU implementation.

CS 3211 Software Engineering I
Credit: 2/2/3
Prerequisite: CS 1302
An introduction to the software development life cycle and contemporary software development methods. This course places special emphasis on object-oriented systems. Students are expected to complete a medium scale software project.
CS 3212 Software Engineering II  
Credit: 2/2/3  
Prerequisite: CS 3151 and CS 3211  
Software development methods for large scale systems, management of software development projects, and software engineering standards. Students are expected to complete a large scale software project.

CS 3230 Information Management  
Credit: 2/2/3  
Prerequisite: CS 3151 and CS 3211  
This course covers principles of database systems. Topics include theory of relational databases, database design techniques, database query languages, transaction processing, distributed databases, privacy, and civil liberties. Students are expected to complete a project in database design, administration, and development.

CS 3270 Intelligent Systems  
Credit: 2/2/3  
Prerequisite: CS 3151  
Application and survey of problem-solving methods in artificial intelligence with emphasis on heuristic programming, production systems, neural networks, agents, social implications of computing, and professional ethics and responsibilities.

CS 3280 System and Network Administration  
Credit: 2/2/3  
Prerequisite: CS 3110  
This course covers fundamental concepts of computer networks and their management. Topics include network security, routing, configuration and installation of network services, network monitoring and performance tuning, message encryption, task automation, process management, file systems, and kernel configuration. Students are expected to complete a project that covers the essentials of set-up, configuration, and administration of networked servers and clients.

CS 4310: Game Design and Development  
Credit: 2/2/3  
Prerequisite: CS3151 and CS3211  
This course will explore the basic design principles and practices employed in developing computer games. Topics will include game design, graphics, animation, storytelling, and network and multi-player issues.

CS 4320: Human/Computer Interaction  
Credit: 2/2/3  
Prerequisite: CS 3211  
This course provides a broad overview of HCI and offers specific background relating to user-centered design approaches in computing systems. The course covers user interface design strategies, user experience levels, usability engineering, cross-disciplinary issues; and methodologies used in the design and evaluation of human/computer interfaces.
CS 4980 Web Technologies
Credit: 2/2/3
Prerequisite: CS 3211
This course focuses on building Web applications. Topics include enterprise and system issues, professional grade website development tools, programming in markup and scripting languages, networked databases across different platforms, use of distributed objects, and ethical and professional implications of the Internet. Students are expected to complete a project in the development and maintenance of websites as well as web services.

CS 4982 Computing Capstone
Credit: 2/2/3
Prerequisite: CS 3212, CS 3230, and CS 3260
This course integrates core topics of the computer science body of knowledge, teamwork, and professional practices through the implementation of a large scale project.

CS 4985 Special Topics
Credit: var. 1-3
Prerequisite: CS 3211 or permission of instructor
Topics in Computer Science are designed to give students knowledge at the frontier of a rapidly changing field.

PSYCHOLOGY COURSES

(required for Software Development Track)

PSYC 3200 Introduction to Organizational Development
Credit: 3/0/3
Prerequisite: PSYC 1101 or permission of instructor
Introduction to organizational process, creation of organizational growth climates, examination and selection of effective leadership styles and effective modes of communication, and coping with the future in periods of accelerating change.

PSYC 3600 Psychology of Communication
Credit: 3/0/3
Prerequisite: PSYC 1101 or permission of instructor
Exploration into modes of communication with self, others, and environment as well as a study of verbal and non-verbal conveyances of meaning.

PSYC 4090 Groups and Group Process
Credit: 3/0/3
Prerequisite: PSYC 1101 or permission of instructor
An introduction to factors affecting the formation, evolution, and development of groups and group process. Examines factors affecting groups and group process in a variety of settings. Includes discussion of leadership styles and their impact on group functioning and group process.

PSYC 4500 Explorations into Creativity
Credit: 3/0/3
Prerequisite: PSYC 1101 or permission of instructor
An experiential exploration into the nature of creativeness. Relevant research will be related to students’ attempts to discover their own creative potential.

CRIMINOLOGY COURSES

(required for Cyber Forensics and Security Track)

CRIM 1100 Introduction to Criminal Justice
Credit: 3/0/3
This course provides an overview of the criminal justice system in the United States. Topics covered include definitions and measures of crime, fear of crime, victims of crime, law enforcement, courts, corrections, and juvenile justice.

CRIM 3323 Criminal Law
Credit: 3/0/3
Prerequisite: CRIM 1100 or consent of instructor
Covers the fundamental elements of criminal law such as mens rea and actus reus, as well as crimes such as murder, burglary, assault, and battery. Significant cases and articles on historically well-established crimes will be examined as will some of the contemporary and more controversial crimes or instances of crime. Legal reasoning and interpretative skills will be emphasized.

CRIM 4277 Police in Society
Credit: 3/0/3
Prerequisite: CRIM 1100 or consent of instructor
The role of police in society changes as other demographic, social, and political changes occur. This course will explore the challenges facing police today in terms of community relations, special populations, accountability, and opening their ranks to more women and minorities

CRIM 4280 Contemporary Issues in Criminal Justice
Credit: 3/0/3
Prerequisite: CRIM 1100 or consent of instructor
This course will focus on a particular issue being dealt with by the criminal justice system today. Students will critically examine the issue and related research and theories. The social context of the issue will be explored as well as possible actions to address the problem
CRIM 4911 Terrorism  
Credit: 3/0/3  
Prerequisite: CRIM 1100  
This course examines domestic and international terrorism. It looks at the theories concerning the causes of terrorism and the various ways that individuals and institutions respond to terrorism. The “war on terrorism” is examined for its unintended consequences.

MASS COMMUNICATIONS COURSES  
(required for Cyber Media Track)

COMM 1154 Introduction to Mass Communications  
Credit: 3/0/3  
A study of the historical, social, economic, and aesthetic dimensions of newspapers, magazines, recordings, radio, television, film, public relations, advertising, and the Internet. Emphasis on the functions of the various media in terms of information dissemination, artistic expression, and impact on society, including the global community.

COMM 3350 Telecommunication and Electronic Media Industries  
Credit: 3/0/3  
Prerequisite: COMM 1154  
A continuation of COMM 1154, this course examines contemporary industry and social issues facing telecommunication and electronic media. Particular attention is given to analysis of structure and process, revenue sources, programming and services, and audience and effects research.

COMM 3351 Radio Program Production  
Credit: 2/2/3  
Prerequisite: COMM 1154  
Instruction in the operation of radio technology and introduction to the production of radio programs.

COMM 3352 Television Production I  
Credit: 2/2/3  
Prerequisite: COMM 1154  
Instruction in the operation of television studio technology and introduction to the production of video and audio messages. Opportunity for practical experience with college television programming.

COMM 4403 Photojournalism  
Credit: 2/2/3  
Prerequisite: COMM 3301
A study of the history and importance of photographs for the print media. Practice in the production of photographs appropriate for newspapers and newsmagazines including composition, depth of field, and cropping. Use of digital camera technology with introduction to standard darkroom techniques.

COMM 4451 Copy Writing for TEM
Credit: 3/0/3
Prerequisite: COMM 1154
A study and application of principles and techniques for writing commercial copy for telecommunication and electronic media.

OTHER COURSES

ENGL 3405 Professional and Technical Writing
Credit: 3/0/3
Intensive practice in composing powerful audience-driven documents in a variety of real-world business, professional, and technical contexts. Students will also learn how to make effective business-related presentations supported with appropriate documentary and visual aids.

MATH 3063 Applied Statistics
Credit: 3/0/3
Prerequisite: MATH 1111 or 1113 with a grade of C or higher
A noncalculus-based introductory statistics course in which descriptive statistics, probability, discrete and continuous distributions, hypotheses testing, and confidence intervals are studied. Basic coverage of regression and analysis of variance will be included. Appropriate technology, a graphing calculator, or statistical software package will be used.
Course or Program Addition, Deletion or Modification Request

Department: Foreign Languages & Literatures  
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Action</th>
<th>Credit</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>☑ Course</td>
<td>☐ Program</td>
<td>☑ Undergraduate</td>
</tr>
<tr>
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<td>☐ Add</td>
<td>☐ Graduate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>☐ Credit</td>
<td>☐ Number</td>
<td>☐ Other*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>☐ Title</td>
<td>☐ Description</td>
<td>☐ Description</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>☐ Other</td>
<td></td>
<td>☐ Variable credit must be explained</td>
</tr>
</tbody>
</table>

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate  ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Action</th>
<th>Credit</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

General Core Curriculum modification. See attached.

Prerequisite(s)

Present or Projected Enrollment: 500 (Students per year)  
Effective Date*: Fall 2007

Grading System: ☑ Letter Grade  ☐ Pass/Fail  ☐ Other

Approval:

Department Chair: [Signature]  Date: 2/3/07

Dean of College: [Signature]  Date:  

Department Chair (if cross listed): [Signature]  Date:  

Dean of College (if cross listed): [Signature]  Date:  

Chair of TEAC (if teacher prep. program) Date:  

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee: [Signature]  Date: 4/16/07

Chair, Committee on Graduate Studies: [Signature]  Date: 4/20/07

Vice President for Academic Affairs: Date:  

Revised 1/09/02
Proposal for change to Area B1 of Core Curriculum
Department of Foreign Languages & Literatures

The Department of Foreign Languages and Literatures requests that FREN/GRMN/SPAN 1001 and 1002 be added to Area B1 of the core in addition to keeping their slots in Area C2 of the core curriculum.

Reason:
Given the language requirement for BA degrees at UWG, as well as issues related to progression and graduation, the addition of 1001/1002 to B2 will allow students to fulfill a core area while simultaneously fulfilling the prerequisites for their Area F. For instance, a student who is working to complete a BA degree must complete through 2002 of a language. If that student starts at 1001, s/he can fulfill area B1 with 1001, C2 with 1002, and Area F with 2001 and 2002.

According to the UWG Catalog, the learning outcomes for B1 are:

Area B
Institutional Priorities 4-5 hours
Learning Outcomes
• To demonstrate the ability to recognize and identify appropriate topics for oral presentation
• To demonstrate the ability to synthesize and logically arrange oral presentations
• To demonstrate the ability to adapt oral communication to specific purposes and audiences
• To demonstrate the ability to utilize appropriate technologies for oral communication
• To develop students who are better prepared for career demands in the 21st Century
• To develop increased awareness of the diverse sources of information and tradition
• To develop enhanced problem solving and critical thinking skills

We are attaching sample syllabi from the six 1001 and 1002 classes in order to demonstrate that the learning outcomes for these courses are in line with this area in addition to Area C2. The outcomes for Area C2 are:

Area C
Humanities and Fine Arts 6 hours
Learning Outcomes
• Ability to make informed judgments about art forms from various cultures including one's own culture;
• Ability to recognize the fine, literary, and performing arts as expressions of human experience;
• Ability to discern the impact and role of artistic and literary achievement in society and one's personal life.
Deutsch 1001
Instructors: 

Course syllabus on the web:
E-mail:

My instructor’s office:
My instructor’s office telephone number:
My instructor’s office hours:

E-mail:

Welcome to German 1001. This course is for students who have never studied German or who have completed less than 2 years of high school German. German 1001 and 1002 are the elementary German courses, followed in the second year by the intermediate courses, G2001 and G2002. This sequence provides you with a solid foundation in the German language. Further study within our program leads to fluency, literary competence and increased cultural sensitivity. We strongly advise that you take the four semesters of the language requirement consecutively. Dropping out of a language for a semester or more will only make the next course in the sequence more difficult.

Course Description¹:
In this course, students will acquire basic listening, speaking, reading, and writing skills in German through active preparation for, and participation in, classroom activities. Students will engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions in German (NS 1.1). Students will learn to understand and interpret spoken and written German on a variety of topics (NS 1.2 -- See Kontakt, Einführung 1-Kapitel 4) and will present information, concepts and ideas in German to an audience of listeners or readers on a similar variety of topics (NS 1.3). Students will demonstrate an understanding of the relationship between the products and perspectives of German-speaking cultures (NS 2.2) and will acquire information and recognize the distinctive viewpoints that are only available through the German language and its cultures (NS 3.2). Finally, students will also become more familiar with and demonstrate an understanding of the nature of language through comparisons between German and English (NS 4.1).

Learning Outcomes:
1. Students will be able to greet and introduce themselves to others in German, and to engage in basic conversations about their everyday experiences: work, school, schedule, leisure time.
2. Students will be able to describe themselves, their families, their lives, and their experiences in basic written and spoken German.
3. Students will be able to read, respond to, and produce a variety of written texts.
4. Students will be able to listen and respond to simple German news reports, advertisements, and conversations among others.

¹ These goals are taken from the National Standards for Foreign Language Learning.
5. Students will be able to use a variety of grammatical structures, including but not limited to the following: the present and present perfect tenses, the nominative and accusative cases, modal verbs, personal pronouns, possessive adjectives, verb-second word order (see Kontakte, chapters A-B and 1-4 for entire range).

**Required Materials (note this means, you MUST have these things!):**
You will need all the same books for G1002, the next course in the sequence, so do not sell them at the end of the term.

**Method:**
This class will be conducted primarily in German and demands regular participation on your part. In class we will focus on interactive activities based on the material you have prepared at home. Because of the collaborative nature of the in-class activities, your success and the success of your colleagues in this class depend as much, if not more, on your preparation for the class as on mine (see contract below). There are no shortcuts in learning a language. It is a difficult task that requires consistent, committed, and hard work, but it can be enormously rewarding and fun. You should strive to speak only German during our 55 minute classes even when asking a fellow student or the instructor what time it is or what page we’re on. In large part the amount that you understand in and contribute to class will depend directly on how much time you have devoted beforehand to preparing the material, learning the vocabulary, doing the assigned exercises.

On a practical level, learning German will demand memorization of vocabulary and grammatical structures and the desire/will effort to creatively use them. Regular written assignments, listening comprehension exercises, language lab visits, and attendance (attentive and active participation – not simply classroom presence) play a role in both the acquisition of linguistic skills and their evaluation. In other words, homework, oral exams, lab visits, and exams are not merely hurdles to be jumped but important learning tools. You will benefit most from them if you can also see them as such.

**Evaluation:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation and Participation</td>
<td>10% (see below)</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Homework as assigned</td>
<td>10%</td>
</tr>
<tr>
<td>Chapter exams (Prüfungen – 4)</td>
<td>40% (10% each)</td>
</tr>
<tr>
<td>Essays (4)</td>
<td>8%</td>
</tr>
<tr>
<td>Oral exams (1 lab visit; 1 regular oral exam)</td>
<td>7%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Note: No extra credit will be given in this class.**

**Participation grades will be assigned on a chapter-by-chapter basis in accordance with the following scale:**
A – student arrives on time and is always prepared, volunteers answers but does not hog classroom time, answers the majority of questions correctly and without wasting much time, participates well in group-
work, remains focused on class activities, does not have to be regularly reminded to concentrate and focus on the activities at hand, rarely uses English, is respectful to both the professor and fellow students.
B -- student arrives on time and is almost always prepared, occasionally volunteers and answers when called on, usually answers correctly and quickly, participates well in group-work, usually works in a focused manner and only occasionally needs to be reminded to concentrate on class work, uses a bit more English that necessary but not every day, is respectful to both professor and fellow students.
C -- student almost always arrives on time, is prepared about half of the time, doesn't generally volunteer answers but does answer when called on and answers are sometimes correct, needs regular reminders to focus and concentrate but heeds reminders when given them, lapses into English on a daily basis, is respectful to both professor and students.
D -- student averages one late per week, is rarely prepared, follows along in class and attempts to answer when called on but answers are rarely correct, needs daily reminders to focus and concentrate, uses English in almost every group-work activity, has a tendency to act out.
F -- student is frequently late, often absent (5-9 times), rarely prepared, inattentive in class, asks time wasting questions about aspects of the course already covered in class during his/her absences, slows down class-room activities because of lack of preparation, hinders other students' progress in group work, is disrespectful and lacks understanding for the classroom environment.

Plagiarism Policy:
The University of West Georgia defines plagiarism as "the purchase and/or use of ghost-written papers and reports, or incorporating into a report, term theme, research paper, or project, ideas and information obtained from another person without giving credit to the person from whom such information was obtained" (Faculty Handbook, Section 207). This definition applies equally to electronic, print, and verbal sources. Plagiarism is grounds for failing this course. Furthermore, using an on-line translation service or friends, family, and/or native speakers to correct and change your German before submitting papers, projects, homework is a form of plagiarism and thus grounds for failing this course.
Contract (for your personal records):

1. I will prepare for and participate in class in a manner that is productive for both myself and my classmates. I will try to speak German at all times and understand that if I disrupt class in any way (talking English in group activities, demonstratively displaying bad moods, refusing to cooperate and participate), I may be considered absent.

2. I understand that all the work I submit must be my own. I will not use an online translation service nor friends and family to correct any of my work in advance. I understand that such actions constitute academic dishonesty and will result in a failing grade and/or further disciplinary actions.

3. I understand that I may not submit work completed for another class for credit in this class.

4. I understand that attendance is important and that I am responsible for everything I miss when I skip class. I know that quizzes and homework assignments cannot be made up. I understand that if I will miss or have missed an exam, I must contact my professor as soon as possible to see if it is possible to negotiate a make-up. If I have not contacted the professor before she returns the graded exams, I have relinquished the possibility of a make-up.

5. I understand that coming to class late and/or leaving class at any point during the 55 minute period is disruptive for my colleagues and professor and I will do so only in extreme circumstances. I understand that two lates is equivalent to an absence and will be counted as such.

6. I understand that I may not use or have cell phones or beepers turned on, even on vibrate mode, during class – under no circumstances. I understand that if a phone call is of such importance that I must be able to receive it immediately, I should use one of my absences and receive the call at home.

7. I understand that absences are my own business and need not be discussed with the professor because there are no excused absences in this class. All absences affect my performance and my grade both directly and indirectly. I know that I will automatically fail the class should I amass 10 absences on or before November 29th, 2006.

8. I understand that my finances, my job, my personal relationships, and my Hope Scholarship cannot play a role in the assigning of my grade and that my grade must be based on what I do and how well I do it in this course. I understand that if I have dire personal circumstances, I may talk to the professor and the Dean about a hardship withdrawal from all of my classes.

9. I understand that for all official correspondence with the professor, I must e-mail her from my university e-mail account in order to make it easier to identify the sender of the e-mail and to avoid unnecessary security or virus risks. I know that if I e-mail from a different account, the professor reserves the right to not answer and/or not open any attachments sent.

10. I understand that I must make a C or better in this course to enroll in German 1002.

11. I have read and understood the syllabus and how I will be evaluated in this course.
12. I have read and understood this contract or have asked questions about those aspects that I did not understand. I hereby declare my commitment to following these guidelines and agree to contact my professor if I believe I can no longer fulfill this commitment.

__________________________
Date

__________________________
Signature
Contract (to be torn off and given to professor):

1. I will prepare for and participate in class in a manner that is productive for both myself and my classmates. I will try to speak German at all times and understand that if I disrupt class in any way (talking English in group activities, demonstratively displaying bad moods, refusing to cooperate and participate), I may be considered absent.

2. I understand that all the work I submit must be my own. I will not use an online translation service nor friends and family to correct any of my work in advance. I understand that such actions constitute academic dishonesty and will result in a failing grade and/or further disciplinary actions.

3. I understand that I may not submit work completed for another class for credit in this class.

4. I understand that attendance is important and that I am responsible for everything I miss when I skip class. I know that quizzes and homework assignments cannot be made up. I understand that if I will miss or have missed an exam, I must contact my professor as soon as possible to see if it is possible to negotiate a make-up. If I have not contacted the professor before she returns the graded exams, I have relinquished the possibility of a make-up.

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6. I understand that I may not use or have cell phones or beepers turned on, even on vibrate mode, during class – under no circumstances. I understand that if a phone call is of such importance that I must be able to receive it immediately, I should use one of my absences and receive the call at home.

7. I understand that absences are my own business and need not be discussed with the professor because there are no excused absences in this class. All absences affect my performance and my grade both directly and indirectly. I know that I will automatically fail the class should I amass 10 absences on or before November 29th, 2006.

8. I understand that my finances, my job, my personal relationships, and my Hope Scholarship cannot play a role in the assigning of my grade and that my grade must be based on what I do and how well I do it in this course. I understand that if I have dire personal circumstances, I may talk to the professor and the Dean about a hardship withdrawal from all of my classes.

9. I understand that for all official correspondence with the professor, I must e-mail her from my university e-mail account in order to make it easier to identify the sender of the e-mail and to avoid unnecessary security or virus risks. I know that if I e-mail from a different account, the professor reserves the right to not answer and/or not open any attachments sent.

10. I understand that I must make a C or better in this course to enroll in German 1002.

11. I have read and understood the syllabus and how I will be evaluated in this course.
12. I have read and understood this contract or have asked questions about those aspects that I did not understand. I hereby declare my commitment to following these guidelines and agree to contact my professor if I believe I can no longer fulfill this commitment.

______________________________
Date

______________________________
Signature

______________________________
Printed Name
Welcome to German 1002. This course is for students who have completed G1001 or who have had at least 2 years of high school German. This is the second of a four-semester language sequence: German 1001 and 1002 are the elementary German courses, followed in the second year by the intermediate courses, G2001 and G2002. We strongly advise that you take the four semesters of the language requirement consecutively. Dropping out of a language for a semester or more will only make the next course in the sequence more difficult because when you are not using the vocabulary, grammatical structures, communicative skills on a regular basis, they atrophy.

Course Description:
In this course, you will continue your acquisition of basic listening (cds, video, music, and lab), speaking (in class activities, orals, extra-curricular activities), reading (texts in book), and writing skills (portfolios, homework, exams) in German through active preparation for, and participation in, classroom activities.

Learning Outcomes:
- Students will demonstrate the better integration and development of the basic communicative skills begun in GRMN 1001 (listening, reading, writing, and speaking) by expanding their vocabulary to include topics such as the work place and university, living arrangements and architecture, geography and transport, eating and drinking at home and in a restaurant, and one’s past, childhood, youth, etc. They will demonstrate familiarity with both the vocabulary and topics covered in GRMN 1001 as well as the new material in chapters 5-9.
- Students will demonstrate knowledge of the German cultural specificities covered in GRMN 1001 as well as of the following newly introduced German cultural specificities: how professional training and university education works in Germany, Christmas and other Holiday customs, the work of a selection of German artists, architects, and poets, German eating habits, German geography and transportation methods, growing up in Germany.
- Students will demonstrate the ability to manipulate the grammatical concepts covered in GRMN 1001 as well as the following new grammatical concepts in a manner that makes for, assuming the good will of the interlocutor, possible comprehension on the part of native and near-native speakers: dative case, two way prepositions, dative and accusative prepositions, the verb “werden”, TMP

2 These outcomes are in line with the National Standards for Foreign Language Learning, particularly N.S. 1.1, 1.2, 1.3, 2.2, 3.2 and 4.1.
word order, subordinating conjunctions, relative pronouns and clauses, verb last
word order, adjectival constructions including comparative, superlative, and
adjective endings, da- and wo-compounds, the future tense and the simple past.

Textbook:
Tracy D. Terrel et al. Kontakte. A Communicative Approach. 5th Edition. (Textbook and
online workbook – Quia).
You will also need a notebook specifically for German and a paper folder for your essay
assignments.

Method:
This class will be conducted primarily in German and demands regular participation on
your part. In class we will focus on interactive activities based on the material you have
prepared at home. Because of the collaborative nature of the in-class activities, your
success and the success of your colleagues in this class depend at least as much on your
preparation for the class as on mine (see contract below). There are no shortcuts in
learning a language. It is a difficult task that requires consistent, committed, and hard
work, but it can be enormously rewarding and fun. You should strive to speak only
German during our 50 minute classes even when asking a fellow student or the instructor
what time it is or what page we’re on. In large part the amount that you understand in and
contribute to class will depend directly on how much time you have devoted beforehand
to preparing the material, learning the vocabulary, doing the assigned exercises. Each
study session outside of class should involve at least 4 of the following activities: (a)
vocabulary learning, (b) practicing the vocabulary in written and spoken sentences,
(c) reading about grammatical structures, (d) using those grammatical structures by
doing assigned exercises and making your own written and oral sentences, (e) a
listening exercise, (f) reading a German text, and (f) a short writing activity to sum
up. In G1002, we will review the present perfect tense (chapter 4) and complete chapters
5 through 9. On a practical level, your further advancement in the German language will
demand a review of the material already covered in G1001, the memorization of new
vocabulary and grammatical structures, and the desire/will/effort to creatively use them.
Regular written assignments, listening comprehension exercises, online workbook
activities, and attendance (attentive and active participation) play a role in both the
acquisition of linguistic skills and their evaluation. In other words, homework, oral
exams, lab visits, and exams are not merely hurdles to be jumped but important learning
tools. You will benefit most from them if you can also see them as such.

Evaluation, i.e. methods for assessing how well individual students are achieving the
learning outcomes:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation for and participation in class</td>
<td>10%</td>
</tr>
<tr>
<td>Quizzes (12-drop 2)</td>
<td>12%</td>
</tr>
<tr>
<td>Homework (online and as otherwise assigned)</td>
<td>10%</td>
</tr>
<tr>
<td>Chapter exams (4 @10 ea.)</td>
<td>40%</td>
</tr>
<tr>
<td>Portfolio assignments (4 @ 2 ea.)</td>
<td>8%</td>
</tr>
<tr>
<td>Language Lab and orals (2 labs. Lab 1 = 2%, Lab 2 = 3%)</td>
<td>5%</td>
</tr>
<tr>
<td>Final</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Participation grades will be assigned on a chapter-by-chapter basis in accordance with the following scale:**

A -- student arrives on time and is always prepared, volunteers answers but does not hog classroom time, answers the majority of questions correctly and without wasting much time, participates well in group-work, remains focused on class activities, does not have to be regularly reminded to concentrate and focus on the activities at hand, rarely uses English, is respectful to both the professor and fellow students.

B -- student arrives on time and is almost always prepared, occasionally volunteers and answers when called on, usually answers correctly and quickly, participates well in group-work, usually works in a focused manner and only occasionally needs to be reminded to concentrate on class work, uses a bit more English that necessary but not every day, is respectful to both professor and fellow students.

C -- student almost always arrives on time, is prepared about half of the time, doesn't generally volunteer answers but does answer when called on and answers are sometimes correct, needs regular reminders to focus and concentrate but heeds reminders when given them, lapses into English on a daily basis, is respectful to both professor and students.

D -- student averages one late per week, is rarely prepared, follows along in class and attempts to answer when called on but answers are rarely correct, needs daily reminders to focus and concentrate, uses English in every group-work activity, has a tendency to be a little disrespectful toward professor and/or fellow students.

F -- student is frequently late, often absent (5-9 times), rarely prepared, inattentive in class, asks time wasting questions about aspects of the course already covered in class during his/her absences, slows down class-room activities because of lack of preparation, hinders other students' progress in group work, is disrespectful and lacks understanding for the classroom environment.

**Plagiarism Policy:**
The State University of West Georgia defines plagiarism as "the purchase and/or use of ghost-written papers and reports, or incorporating into a report, term theme, research paper, or project, ideas and information obtained from another person without giving credit to the person from whom such information was obtained" (Faculty Handbook, Section 207). This definition applies equally to electronic, print, and verbal sources. **Plagiarism is grounds for failing this course.** Furthermore, using an on-line translation service or friends, family, and/or native speakers to correct and change your German before submitting papers, projects, homework are forms of plagiarism and are similarly grounds for failing this course.

**Academic Honor:**
The University of West Georgia assumes that each student “pledges not to lie, cheat, steal or engage in plagiarism in the pursuit of his or her studies…” (Undergraduate Catalog, 2003, 97).

**In sum:** If you plagiarize or cheat, you will fail. There will be no second chance. Hand in a portfolio item or homework assignment with which you have received help from a tutor, native speaker, class member, family member, etc, and you break the University's Honor Code. Your name will be submitted to the Vice President's Office where a record of your academic dishonesty will be maintained for future reference. I do not participate in the myth that you just don’t understand what you’re doing when you cheat in this manner. I grant you far more intelligence than this myth suggests and I have now
addressed the issues both orally and in writing and will therefore hold you responsible for any of your actions that infringe on the University’s Honor Code.
Contract (for your personal records):

13. I will prepare for and participate in class in a manner that is productive for both myself and my classmates. I will try to speak German at all times and understand that if I disrupt class in any way (talking English in group activities, demonstratively displaying bad moods, refusal to cooperate and participate, fiddling with cell phone, arriving late on a regular basis), I may be considered absent.

14. I understand that all the work I submit must be my own. I will not use an online translation service nor friends and family to correct any of my work in advance. I understand that such actions constitute academic dishonesty and will result in a failing grade and/or further disciplinary actions.

15. I understand that attendance is important and that I am responsible for everything I miss when I skip class. I know that quizzes and homework assignments cannot be made up. I understand that if I will miss or have missed an exam, I must contact my professor as soon as possible to negotiate a make-up. If I have not contacted the professor before she returns the graded exams, I have relinquished the possibility of a make-up.

16. I understand that written homework will be collected randomly on 10 occasions during the semester and that 2 will be dropped.

17. I understand that coming to class late and/or leaving class at any point during the 50 minute period affects my participation grade. I understand that if I come late and/or leave during class on a regular basis, I may be dropped from the class because it infringes on the rights of other students to learn in an undisturbed environment. If I must leave on occasion due to extreme circumstances, I understand that I should not ask for permission as that further disrupts the class. I understand that two lates/incomplete class sessions are equivalent to an absence and will be counted as such. I also understand that I may not have cell phones or beepers turned on during class — under no circumstances. I understand that if my cell phone rings during an exam, I will receive a zero for that exam. I understand that if I take my cell phone out during an exam and fiddle with it, I will receive a zero for that exam.

18. I understand that all absences affect my performance and my grade both directly and indirectly. I understand that I have 5 excused absences in the bank as the course begins and that they are there in case of difficult circumstances that would require absences (illness, funerals, court cases, etc). I understand that absences are not intended as vacation days and that if I use them as such early on, I will not be given special consideration for difficult circumstances that might arise later. I understand that for each absence beyond this initial 5, 2% will be deducted from my final grade in the class.

19. I understand that parking difficulties, work schedules, my finances, my job, and my Hope Scholarship are my own personal business and that I should therefore not invoke them in professional discussions with my professor about the course and or my performance in the course. I understand that my grade must be based on what I do and how well I do it in this course and cannot be altered on the basis of personal circumstances. I understand that if I do, however, encounter
extreme personal circumstances, I can attempt to get a hardship withdrawal from all my courses through the Dean's office.

20. I understand that I may not submit papers/assignments submitted for credit in other courses for credit in this course. All work must be specific to this course.

21. I have read and understood the syllabus and how I will be evaluated in this course.

22. I have read and understood this contract or have asked questions about those aspects that I did not understand. I hereby declare my commitment to following these guidelines and agree to contact my professor if I believe I can no longer fulfill this commitment.

______________________________
Date

______________________________
Signature
Contract (to be signed and turned in):

1. I will prepare for and participate in class in a manner that is productive for both myself and my classmates. I will try to speak German at all times and understand that if I disrupt class in any way (talking English in group activities, demonstratively displaying bad moods, refusal to cooperate and participate, fiddling with cell phone), I may be considered absent.

2. I understand that all the work I submit must be my own. I will not use an online translation service nor friends and family to correct any of my work in advance. I understand that such actions constitute academic dishonesty and will result in a failing grade and/or further disciplinary actions.

3. I understand that attendance is important and that I am responsible for everything I miss when I skip class. I know that quizzes and homework assignments cannot be made up. I understand that if I will miss or have missed an exam, I must contact my professor as soon as possible to negotiate a make-up. If I have not contacted the professor before she returns the graded exams, I have relinquished the possibility of a make-up.

4. I understand that written homework will be collected randomly on 10 occasions during the semester and that 2 will be dropped.

5. I understand that coming to class late and/or leaving class at any point during the 50 minute period affects my participation grade. I understand that if I come late and/or leave during class on a regular basis, I may be dropped from the class because it infringes on the rights of other students to learn in an undisrupted environment. If I must leave on occasion due to extreme circumstances, I understand that I should not ask for permission as that further disrupts the class. I understand that two lates/incomplete class sessions are equivalent to an absence and will be counted as such. I also understand that I may not have cell phones or beepers turned on during class – under no circumstances. I understand that if my cell phone rings during an exam, I will receive a zero for that exam. I understand that if I take my cell phone out during an exam and fiddle with it, I will receive a zero for that exam.

6. I understand that all absences affect my performance and my grade both directly and indirectly. I understand that I have 5 excused absences in the bank as the course begins and that they are there in case of difficult circumstances that would require absences (illness, funerals, court cases, etc). I understand that absences are not intended as vacation days and that if I use them as such early on, I will not be given special consideration for difficult circumstances that might arise later. I understand that for each absence beyond this initial 5, 2% will be deducted from my final grade in the class.

7. I understand that parking difficulties, work schedules, my finances, my job, and my Hope Scholarship are my own personal business and that I should therefore not invoke them in professional discussions with my professor about the course and or my performance in the course. I understand that my grade must be based on what I do and how well I do it in this course and cannot be altered on the basis of personal circumstances. I understand that if I do, however, encounter extreme personal circumstances, I can attempt to get a hardship withdrawal from all my courses through the Dean’s office.
8. I understand that I may not submit papers/assignments submitted for credit in other courses for credit in this course. All work must be specific to this course.
9. I have read and understood the syllabus and how I will be evaluated in this course.
10. I have read and understood this contract or have asked questions about those aspects that I did not understand. I hereby declare my commitment to following these guidelines and agree to contact my professor if I believe I can no longer fulfill this commitment.

________________________
Date

________________________
Print Name

________________________
Signature
French 1002: Elementary French II

Term:
Instructor:
Office:
Phone:
E-mail:
Course web site:
Office hours:

Course Description:
Welcome to French 1002. This course is for students who have completed French 1001 or who have had two years of High School French. If you have had more than two years, you should probably be in French 2001 or French 2002. A note about the four-semester language sequence: French 1001 and 1002 (elementary) introduce you to vocabulary, culture, and the major principles of French grammar. The emphasis is on the application of vocabulary and grammar. French 2001 (intermediate 1) offers a contextualized review of grammar with further emphasis on acquisition of vocabulary and on your awareness of francophone culture. French 2002 (intermediate 2) uses literary and cultural texts to help you develop your skills in the four main areas of language learning: speaking, writing, reading, and listening. We strongly recommend that you take your French courses during consecutive semesters so as not to forget what you have learned in previous courses!

Learning Outcomes:
Upon completion of French 1002, you will use a variety of grammatical structures and vocabulary to talk to others about yourself, describe features of nature and geography, talk about the weather, make a hotel reservation, talk about food, narrate past events in your life and talk about people you remember, discuss your future plans, describe clothing and personal possessions, and so on. You will have expanded on your knowledge of the present tense and the passé composé, and will have been introduced to the imparfait and future tenses, and the conditional mood. You will be able to: write short compositions on a variety of topics and free of serious grammatical errors and read simple but authentic texts about French culture.

Text:

Evaluation:
*Active participation in class: 10%*
To receive a superior grade for participation, you must show that you are prepared and you must participate actively during every class meeting. Attendance is mandatory.

*Homework/pop quizzes: 15%*
Homework is assigned and completed online unless otherwise indicated. Homework will be due every Monday and assigned a week in advance. Pop quizzes on material you've
been told to read will be given throughout the semester. Their frequency depends largely on you: if it's clear that there are students who are not coming to class fully prepared, more pop quizzes will be given. Homework and pop quizzes cannot be made up. However, your lowest score for this portion of the final grade will be dropped.

**Compositions: 15%**
You will write 3 compositions during the semester. They will allow you to use and to apply grammar and vocabulary that has been covered in class and will be graded on grammar and content. If you choose to rewrite your composition you may improve your initial grade by a maximum of 5 percentage points. Rewrites are always due a week after I return the first draft to you in class.

**Chapter tests: 30%**
Each test includes a listening comprehension section and exercises testing your knowledge of grammar, vocabulary, and culture.
Note: NO make-up tests will be given.

**Presentation: 10%**
You will make a 10min group presentation on a topic relevant to the themes studied. It is your responsibility to meet with me for final approval of your topic.

**Final exam: 20%**
The final is cumulative and will follow the same format as chapter tests, although it will be longer. It will cover the grammar and vocabulary seen during the semester. It will include a listening section with dictation and/or comprehension exercises as well as written exercises that test your ability to apply what you have studied.

NOTE: There will be NO "extra credit" in this course.
No work completed for another class may be turned in for a grade in this course.
The official communication method for this class will be through campus e-mail.

**Grading Scale:** (90-100=A; 80-89=B; 70-79=C; 60-69=D; 0-59=F)
Note: A/ A- = Outstanding/excellent; B+/B = very good/good; B-/C+ = quite good; C= satisfactory; C-/D = passable; F = unsatisfactory. **You must receive a C or above in this class to move on to 2001.**

**Your day-to-day Responsibilities:**
1. You MUST read assigned pages from *Je veux bien!* before you come to class. Class is intended for the application (not the explanation) of new points. Most explanations in your book are in English. Study them before class.
2. You MUST turn in all assignments on time. **NO LATE WORK IS ACCEPTED.**
3. **Attendance:** There are no "excused" absences. After 5 absences your final grade will be lowered by 5 points for each subsequent absence, regardless of the reason. If you are absent for any reason, it is your responsibility to find out what you missed, to get any new assignments and to make sure that you get any previously assigned work to your instructor on the day it's due. The "no late work" rule applies if you're absent. Repeated
tardiness and failure to pay attention in class (sleeping, finishing your English essay) will count as an absence.
5. Please be respectful towards your fellow students (and towards your instructor) by paying attention when they're asking and answering questions.
6. Make sure you know when your instructor has office hours.
7. All pagers, cell phones, etc. must be turned off during class!!

Plagiarism Policy:
The University of West Georgia defines plagiarism as “the purchase and use of ghost-written papers and reports, or incorporating into a report, term theme, research paper, or project, ideas and information obtained from another person without giving credit to the person from whom such information was obtained.” (Faculty Handbook, section 207). This definition applies to electronic, print, and verbal sources. Plagiarism is grounds for failing this course.
FREN 1001 – Elementary French I  
Term: Fall 2006 
Instructor: Dr. Ioanna Chatzidimitriou  
Office: Cobb 118 
Phone #: 678-839-5954 
Email: ioannac@westga.edu 
Office Hours: MWF 9-10 and 12:20-1:20

Course Description  
This course is for students who have had less than two years of high school French or who have had no French at all. If you have had two years of French, you should probably be in French 1002. A note about the four-semester language sequence: French 1001 and 1002 (elementary) introduce you to vocabulary, culture, and the major principles of French grammar. The emphasis is on the application of vocabulary and grammar. French 2001 (intermediate 1) offers a contextualized review of grammar with further emphasis on acquisition of vocabulary and on your awareness of Francophone culture. French 2002 (intermediate 2) uses literary and cultural texts to help you develop your skills in the four main areas of language learning: speaking, writing, reading, and listening. We strongly recommend that you take your French courses during consecutive semesters so as not to forget what you have learned in previous courses!

Learning Outcomes  
Upon completion of French 1001, you will be able to use a variety of grammatical structures and vocabulary to greet others, order in a café, express interests and emotion, give information about yourself, talk about the members of your family and friends, describe people you know, give directions, shop for clothes, describe where you live, talk about past personal experiences, and so on. You will have been introduced to the present tense, the future immediate, and the passé composé, possessive and descriptive adjectives, information questions, articles, negation, and other grammatical structures that will enable you to speak, read, and write simple but correct French.

Text  

Evaluation/Assignments/Grading  
Active participation in class: 10%.  
To receive a superior grade for participation, you must show that you have carefully read all assigned pages and you must participate actively during every class meeting.  
Attendance is mandatory.

Homework/pop quizzes: 10%  
Homework is assigned and completed online unless otherwise indicated. Homework will be assigned every Monday and will be due a week later (the following Monday). Pop quizzes on material you've been told to read will be given throughout the semester. Their frequency depends largely on you: if it's clear that there are students who are not coming
to class fully prepared, more pop quizzes will be given. Homework and pop quizzes cannot be made up. However, your lowest score for this portion of the final grade will be dropped. You are also required to participate in four of the cultural French section events organized this semester (will count as four separate homework grades). These include, but are not limited to, movies and la pause café.

Compositions (4): 15%
You will write 4 short compositions during the semester. They will allow you to apply grammar and vocabulary that has been covered in class and will be graded on grammar and content. If you choose to rewrite your composition you may improve your initial grade by a maximum of 5 percentage points. Rewrites are always due a week after I return the first draft to you in class. There will be no rewrite option for the fourth composition.

Chapter quizzes (2): 20%
Each quiz will include a listening comprehension section and exercises testing your knowledge of grammar and vocabulary. Note: NO make-up quizzes will be given.

Midterm exam: 15%
The midterm exam will follow chapter 2 and will be cumulative. It will include a listening comprehension section and exercises testing your knowledge of grammar, vocabulary, and culture. Note: NO make-up exams will be given.

Oral interview: 10%
The oral interview will take place at the end of the semester and will be cumulative.

Final exam: 20%
The final is cumulative and will follow basically the same format as the midterm, although it will be longer. It will cover the grammar and vocabulary seen during the semester. It will include a listening section with dictation and/or comprehension exercises as well as written exercises that test your ability to apply what you have studied.

NOTE: There will be NO “extra credit” in this course.
No work completed for another class may be turned in for a grade in this course.
The official communication method for this class will be through campus e-mail.

Grading scale: (90-100=A; 80-89=B; 70-79=C; 60-69=D; 0-59=F)
Note: A/ A- = Outstanding/excellent; B+/B = very good/good; B-/C+ = quite good; C = satisfactory; C-/D = passable; F = unsatisfactory. You must receive a C or above in this class to move on to 1002.

Your day-to-day Responsibilities
1. You MUST read assigned pages from Je veux bien! before you come to class. Class is intended for the application (not the explanation) of new points. Most explanations in your book are in English. Study them before class.
2. You MUST turn in all assignments on time. NO LATE WORK IS ACCEPTED.
3. **Attendance**: There are no “excused” absences. After 5 absences your final grade will be lowered by 5 points for each subsequent absence, regardless of the reason. If you are absent for any reason, it is your responsibility to find out what you missed, to get any new assignments and to make sure that you get any previously assigned work to your instructor on the day it's due. The "no late work" rule applies if you're absent. Repeated tardiness and failure to pay attention in class (sleeping, finishing your English essay) will count as an absence.

5. Please be respectful towards your fellow students (and towards your instructor) by paying attention when they're asking and answering questions.

6. Make sure you know when your instructor has office hours.

7. All pagers, cell phones, etc. must be turned off during class!!

**Plagiarism Policy**
The University of West Georgia defines plagiarism as “the purchase and use of ghost-written papers and reports, or incorporating into a report, term theme, research paper, or project, ideas and information obtained from another person without giving credit to the person from whom such information was obtained.” (Faculty Handbook, section 207). This definition applies to electronic, print, and verbal sources. Plagiarism is grounds for failing this course.
SPAN 1001

Profesora:
Oficina:
Horas de Oficina:
Teléfono:
E-mail:

Libros de texto:
Nexos: Introductory Spanish
Quia Online Activities Manual

Evaluación del progreso de los estudiantes
Mid-term exam 20%
Quizzes 20%
Final Exam Written 30%
Compositions (2) 10%
Oral midterm/final 10%
Quia 10%

Learning Outcomes:
By the end of this course, students will be able to:
1. Describe their own experiences.
2. Make brief written and oral presentations.
3. Read, respond to, and create various types of written texts.
4. Participate in basic conversations on a variety of topics.

Requirements:

- Students should attend all classes.
- If a student misses more than 5 days, that student will receive a WF.
- Students should come to class prepared.
- Students should do the work indicated in the syllabus and all other assignments given by the professor.
- Students must take the exams and quizzes and write compositions on indicated days. (No makeup work.)
- Turn off all cell phones and pagers in class!

Plagiarism Policy:
The University of West Georgia defines plagiarism as "the purchase and use of ghost-written papers and reports, or incorporating into a report, term theme, research paper, or project, ideas and information obtained from another person without giving credit to the person from whom such information was obtained." (Faculty Handbook, section 207. This definition applies equally to electronic, print, and verbal sources. Plagiarism is grounds for failing this course. If a tutor or friend re-writes a composition, that is plagiarism. If a student copies another's workbook exercises, that is also plagiarism. If you need help with a written assignment, consult your instructor.
Course or Program Addition, Deletion or Modification Request

Department: Geosciences
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

<table>
<thead>
<tr>
<th>Prefix</th>
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<th>Title</th>
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<tr>
<td>Delete</td>
<td>Other*</td>
<td>Other</td>
</tr>
</tbody>
</table>

*Variable credit must be explained

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
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</table>

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

See attachment.

Prerequisite(s)

Present or Projected Enrollment: (Students per year) Effective Date*:

*For a new course, one full term must pass between approval and effective date.

Grading System: ☐ Letter Grade ☐ Pass/Fail ☐ Other

Approval:

[Signature] 4-3-07

Department Chair Date

[Signature] Date

Dean of College Date

[Signature] Date

Chair of TEAC (if teacher prep. program) Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

[Signature] 9-14-07

Chair, Undergraduate Academic Programs Committee Date

[Signature] Date

Chair, Committee on Graduate Studies

Vice President for Academic Affairs Date

Revised 1/09/02
PROGRAM MODIFICATION

OF

BA DEGREE WITH MAJOR IN GEOGRAPHY

RATIONALE
At present the requirements of the degree program are out of date in terms of the quantity and quality of current and future faculty resources and with intellectual and methodological developments in the discipline. Furthermore, the current degree is not adequately organized to provide a thorough, systematic, and rigorous education in the field. The Department of Geosciences proposes to revise the BA degree program in Geography to yield the following degree requirements:
B.A. DEGREE WITH A MAJOR IN GEOGRAPHY

LEARNING OUTCOMES
The list below represents the major learning objectives of the B.S. Degree in Geography. Upon graduating from the Department of Geosciences, every student with a bachelor’s degree in Geography should be able to do the following:

- Recognize historical and contemporary perspectives of the discipline
- Demonstrate an understanding of concepts and vocabulary basic to geography
- Perform qualitative and quantitative analyses of geographic phenomena
- Demonstrate a fundamental awareness of geographic dimensions to human and physical processes and conditions
- Explain processes of political, economic, and cultural difference within and between human societies
- Demonstrate fundamentals of cartography and geographic information systems
- Demonstrate competence in the manipulation and analysis of spatial data
- Demonstrate understanding of physical processes at the earth’s surface
- Characterize global human and physical environments
- Demonstrate the fundamentals of remote sensing and image processing

CORE REQUIREMENTS
Core Areas A, B, C, D, E (see pages 128-134) 42

Area F
One of the following
  GEOG 2083 Introduction to Geographical Analysis
  MATH 2063 Introductory Statistics
  FORL 2002 Foreign Language 3
  GEOG 2553 Fundamentals of Mapping Science 3
Any courses 2000 or below from:
  ANTH, ECON, GEOG, FORL, PLAN, POLS, SOCI 9

Total Core Hours 60

REQUIREMENTS FOR THE MAJOR
Must have at least 39 total hours from courses 3000 or above.

Required
GEOG 1013 World Geography (if not taken in Areas E or F) 0-3
One of the following:
  GEOG 1111 Introduction to Physical Geography
  GEOG 1112 Weather and Climate (if not taken in Areas D or F)
  GEOG 1113 Landform Geography (if not taken in Areas D or F)
GEOG 2083 Introduction to Geographical Analysis (if not taken in Area F) 3
Three of the following:
  GEOG 2503 Cultural Geography (if not taken in Core Areas E or F)
  GEOG 2010 Political Geography
  GEOG 3253 Economic Geography
  GEOG 3643 Urban Geography
One of the following:  
GEOG 3010 Rethinking Geopolitics  
GEOG 3085 Selected Topics in Regional Geography  
GEOG 3644 Atlanta’s Geographies  
GEOG 4014 Globalization  
GEOG 4503 Culture, Space, and Place  
GEOG 4084 Senior Seminar: Why Geography Matters (Senior Seminar)  
GEOG 4553 Geographic Information Systems  
GEOG courses 3000 or above  

**Electives**  
Courses 3000 or above from the College of Arts and Sciences  
Minor or any courses from the university
COURSE MODIFICATION

OF

GEOG 1112/1112L
WEATHER AND CLIMATE/LAB

AND

GEOG 1113/GEOG 1113L
LANDFORM GEOGRAPHY/LAB

Modification
We propose that these courses be included in Area D Option II.

Rationale
These courses in physical geography (GEOG 1112 and 1113, with labs), satisfy the requirements for Area D. Additionally, they constitute a 2-semester sequence of science courses that include a laboratory component, and thus, should be part of the set of science courses available for Area D-2 credit.

Furthermore, according to the Board of Regents of the University System of Georgia, the BS Degree in Geography is a “science” program and must require, therefore, Option 2 of Area D as well as MATH 1113 or higher in Area A (see Section 2.04.01 of the Academic Affairs Handbook). At present, there are no Geography (GEOG) courses that can be taken to fulfill Option 2 of Area D, making BS students in Geography the only students in a “science” program that cannot fulfill some aspect of Option 2 in their own field.

\[\text{\footnotesize This is also the UWG Registrar's (Bonnie Stevens) interpretation of the Academic Affairs Handbook.}\]
Course or Program Addition, Deletion or Modification Request

Department: Geosciences
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix GEOG Course 1112 Title Weather and Climate

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*Variable credit must be explained

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

✔ Library resources are adequate □ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Prefix Course Title Hours: Lecture/Lab/Total

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

See attachment.

Prerequisite(s)

Present or Projected Enrollment: (Students per year)

*For a new course, one full term must pass between approval and effective date.

Grading System: □ Letter Grade □ Pass/Fail □ Other

Effective Date*: Fall 2007

Approval:

Department Chair: [Signature] 1/16/07
Department Chair (if cross listed): [Signature] 1/19/07

Dean of College: [Signature] 1/19/07
Dean of College (if cross listed): [Signature]

Chair of TEAC (If teacher prep. program): [Signature] Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee: [Signature] 4/12/07
Chair, Committee on Graduate Studies: [Signature] 4/21/07

Vice President for Academic Affairs: [Signature] Date

Revised 1/09/02
# Course or Program Addition, Deletion or Modification Request

**Department:** Geosciences

**College:** College of Arts & Sciences

**Current course catalog listing:** (for modifications or deletions)

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**Rationale:** To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- ✓ Library resources are adequate
- □ Library resources need enhancement

**Proposed Course Catalog Listing:** (For new courses or for modification)

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**Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):**

See attachment.

**Prerequisite(s):**

**Present or Projected Enrollment:** (Students per year)  
*For a new course, one full term must pass between approval and effective date.*

<table>
<thead>
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<th>Letter Grade</th>
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</table>

**Effective Date:**  
*Fall 2007*

**Approval:**  

- **Department Chair:**  
  - **Date:** 1-16-07

- **Dean of College:**  
  - **Date:** 11/19/07

**Final Approval:** Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

- **Chair, Undergraduate Academic Programs Committee:**  
  - **Date:** 4/3/07

- **Chair, Committee on Graduate Studies:**  
  - **Date:** 4/26/07

**Vice President for Academic Affairs:**  

*Revised 1/09/02*
# Course or Program Addition, Deletion or Modification Request

**Department:** Geosciences  
**College:** College of Arts & Sciences

### Current course catalog listing: (for modifications or deletions)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Hours: Lecture/Lab/Total</th>
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<tbody>
<tr>
<td>GEOC</td>
<td>1113</td>
<td>Landform Geography</td>
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</table>

**Action**

- [☑] Course  
- [ ] Program

**Credit**

- [☑] Undergraduate
- [ ] Graduate
- [ ] Other*

**Frequency**

- [☑] Every Term
- [ ] Yearly
- [ ] Other

*Variable credit must be explained*

**Rationale:** To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- [☑] Library resources are adequate  
- [ ] Library resources need enhancement

### Proposed Course Catalog Listing: (For new courses or for modification)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Hours: Lecture/Lab/Total</th>
</tr>
</thead>
</table>

**Catalog Description** (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

See attachment.

**Prerequisite(s)**

- 

### Present or Projected Enrollment:

- (Students per year)  

- Effective Date: Fall 2007

- *For a new course, one full term must pass between approval and effective date.

**Grading System**

- [ ] Letter Grade  
- [ ] Pass/Fail  
- [ ] Other

**Approval:**

- [Signature]  
- Date: 1-16-07

- [Signature]  
- Date: 11-9-07

**Chair of TEAC (if teacher prep. program)**  
- Date

**Final Approval:** Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

- [Signature]  
- Date: 4-24-07

- [Signature]  
- Date

**Revised 1/09/02**
Course or Program Addition, Deletion or Modification Request

Department: Geosciences
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix: GEOG
Course: 1113L
Title: Landform Geography Lab

Action
- [ ] Course
- [ ] Program

- [x] Modify
- [ ] Add
- [ ] Delete

- [ ] Credit
- [ ] Number
- [ ] Title
- [ ] Description
- [ ] Other

Credit
- [x] Undergraduate
- [ ] Graduate
- [ ] Other*

*Variable credit must be explained

Frequency
- [x] Every Term
- [ ] Yearly
- [ ] Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- [x] Library resources are adequate
- [ ] Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Prefix

Course

Title

Hours: Lecture/Lab/Total

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

See attachment.

Prerequisite(s)

Present or Projected Enrollment: (Students per year)
For a new course, one full term must pass between approval and effective date.

Grading System:
- [ ] Letter Grade
- [ ] Pass/Fail
- [ ] Other

Approval:

[Signature]
Date:

Department Chair

City, State

Dean of College

[Signature]
Date:

[Signature]
Date:

Chair of TEAC (if teacher prep. program)

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

[Signature]
Date:

Chair, Undergraduate Academic Programs Committee

[Signature]
Date:

Chair, Committee on Graduate Studies

[Signature]
Date:

Vice President for Academic Affairs

Revised 1/09/02
Proposed Course:
GEOG 1113 Landform Geography
GEOG 1113L Landform Geography Laboratory

Catalog Description:
Directed towards science majors, this course investigates Earth’s surface processes and landforms. Students will observe and interpret a variety landscapes in terms of the fundamental processes and factors that have shaped them through time, including water, wind, and tectonic forces. Students will engage in hands-on, field-based observations in the laboratory portion of the class. Students will gain experience in the interpretation and integration of geospatial information including topographic and geologic maps, as well as aerial photographs and satellite imagery.

Course Objectives

During this course students will

- Communicate effectively using the terminology of Earth Science
- Master the basic concepts of hydrologic and lithospheric processes
- Appreciate the interaction of surface processes with the lithosphere in the creation of landscapes
- Use geomorphic records to reconstruct past environments
- Collect, analyze, and interpret hydrologic and geomorphic data from multiple sources, including direct observations, internet sources, and satellite remote sensing
- Utilize geospatial technology to map and interpret landforms
- Recognize links between physical processes at the Earth’s surface and human activities

Textbook (class)

GEOSYSTEMS (with Atlas). R.W. Christopherson, ed. 5e. Prentice Hall.

Laboratory Manual


Assessment and Grading Policy (class)

1. There will be four exams, including the final. Each exam will include the material covered since the previous exam. Exams will be multiple choice. Each exam will comprise 20% of the class grade.
2. Students will document an example that makes the connection between a surface physical process (e.g. desertification; sea level rise; volcanic eruption) and human impacts, in the form of an illustrated report. The report will comprise 20% of the class grade.
3. Students will compile a weekly “events log” concerning geomorphic events, comprised of newspaper articles documenting impacts on human society.
4. Grades will be assigned > 90% = A; 80-89% = B; 70-79% = C; 60-69% = D; < 60% = F.
### CLASS SCHEDULE

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPIC</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to Physical Geography</td>
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<td>2</td>
<td>The Dynamic Planet</td>
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<tr>
<td>3</td>
<td>Tectonics, Earthquakes, and Volcanism</td>
</tr>
<tr>
<td>4</td>
<td>Review and Test</td>
</tr>
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<td>5</td>
<td>Weathering</td>
</tr>
<tr>
<td>6</td>
<td>Karst landscapes/Mass movements</td>
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<td>7</td>
<td>Water Resources</td>
</tr>
<tr>
<td>8</td>
<td>Review and Test</td>
</tr>
<tr>
<td>9</td>
<td>Fluvial forms and processes</td>
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<td>10</td>
<td>Eolian processes; Coastal processes</td>
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<td>11</td>
<td>Geography of Soils</td>
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<td>12</td>
<td>Review and Test</td>
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<tr>
<td>13</td>
<td>Glacial and periglacial processes and landforms</td>
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<td>14</td>
<td>Quaternary Geomorphology</td>
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<tr>
<td>15</td>
<td>Human/Environmental Interactions</td>
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<td>16</td>
<td>Review and Test</td>
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### LAB SCHEDULE

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<thead>
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<th>WEEK</th>
<th>TOPIC</th>
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<tr>
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<td>Fundamental Geographic Concepts</td>
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<td>2</td>
<td>Map Interpretation</td>
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<td>3</td>
<td>Test</td>
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<tr>
<td>4</td>
<td>Plate Tectonics</td>
</tr>
<tr>
<td>5</td>
<td>Recurrence Intervals for Natural Events</td>
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<tr>
<td>6</td>
<td>Campus Weathering Profiles</td>
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<td>7</td>
<td>Test</td>
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<td>8</td>
<td>Water Balance and Water Resources</td>
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<td>9</td>
<td>Watershed Analysis</td>
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<td>Fluvial Geomorphology</td>
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<td>Test</td>
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<td>12</td>
<td>Coastal and Arid Geomorphology</td>
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<td>13</td>
<td>Soils</td>
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<td>14</td>
<td>Glacial/Quaternary Geomorphology</td>
</tr>
<tr>
<td>15</td>
<td>Test</td>
</tr>
</tbody>
</table>
Learning outcomes tied to the Core:

1. Encourage the development of written and oral communication skills and critical thinking within the broader academic context. A written report documenting the connection between surface physical process (e.g. desertification; sea level rise; volcanic eruption) and human impacts will be required of each student. Students will be required to turn in an initial outline, followed by a rough draft, for approval by the instructors. This project will require critical analysis and interpretation of scientific data.

2. Permit opportunities for interdisciplinary learning. Earth surface processes impact society in countless ways. The land surface dictates settlement patterns, land use, natural resource distributions, and has profound influence on biota. Throughout the semester the direct impacts of surface processes on humans will be the subject of an “events log”.

3. Include offerings that reflect the special characteristics of the institution. Many of our students are from the local area, and this course highlights local and regional environmental issues and phenomena in order to engage students’ interest. The required research report and fits well with the institution’s emphasis on undergraduate research.

4. Feature international components that increase global awareness and introduce the student to different cultural perspectives. The study of Earth surface processes and landscapes is a global undertaking. Many cultural characteristics reflect local and regional landforms (e.g. architecture, agriculture, and livelihood).

5. Include an informed use of information technology. This class will introduce students to software and internet resources for topics, data, and analytical tools to use in completing their labs and research projects.

6. Employ pedagogy designed to increase intellectual curiosity and to initiate a continuing interest in the subject matter. Inclusion of local and regional examples of the landforms and surface processes, putting the course content in a more immediate perspective, will engage student curiosity effectively. Availability of quantitative data and remotely-sensed imagery of the land surface allows the analysis of local to global events in a real-time context.

7. Feature courses that are challenging and rigorous and provide learning experiences that distinguish a field. Physical Geography is distinguished by geospatial technology and human/environmental interactions. It also maintains an Earth Systems perspective, emphasizing connections among Earth Systems. Landform geography incorporates these perspectives.

8. Introduce the methods used by technical and scientific professionals, such as the evaluation of empirical data, problem recognition, problem definition, the application of scientific principles, and logical problem solving. The student will interact with a variety of data and data sources, using accepted analysis tools and techniques. The required research report, which will conform to
academic and scientific standards, will develop and demonstrate problem definition and logical problem solving skills.

9. Be cohesive and provide entry to both specialized studies in the students chosen field and remaining course (whether upper or lower division) in the institutions general education curriculum. The course will provide a foundation for subsequent upper level courses the Physical Geography B.S. program. It emphasizes skills and perspectives relevant to any science major, and provides non-science majors with a broad-based introduction to Earth Science and scientific techniques and skills.

10. Be designed with the assumption that students have met all admissions standards to the institution (with appropriate academic support provided for those who have not).
Landform Geography

Instructor: Dr. Rebecca L. Dodge
Room 8, Geography Building
678-839-4067

Office hours: T/Th 8:45 – 10:30, and T/Th 4:00 m- 5:30 in Room 8, Geography Building. Instructor can also be reached by email at rDodg@westga.edu - unsigned email will not be answered. (Do not send email to rDodg@mywestga.edu!) All scheduled appointments must be confirmed by email.


Course Objective: To understand the earth as a system in which the hydrosphere, biosphere, lithosphere, and atmosphere interact to create our environment. This course will focus on the Lithosphere, Hydrosphere, and related landform elements of the Earth’s systems. During this course you will learn to:

Understand the relationships among the earth's four spheres and how they affect one another
Develop a deeper understanding of the processes active in the Lithosphere and Hydrosphere, and how they interact with one another.
Identify landforms associated with Lithosphere and Hydrosphere processes
Understand how scientists make environmental observations using sound scientific protocols

Course Format: Content lectures will be the foundation of the class. Summary course notes will be delivered during lectures. Your notes, together with the text, handouts, and "current environmental events" discussions will be the basis for tests.
Assessment: Your grade will be based on three components:

Exams: Three exams will be given. Each will cover three to four chapters from the text. Tests comprise multiple choice and matching questions. Bring a #2 pencil to the exams, and know your student ID#. Grades will be given during office hours or during class. Make-up exams will be given when an acceptable written excuse is provided. In order to take a make-up, a written excuse must be provided before or within one week of the exam. A review session will be held one class period prior to the test, and beginning with an extra credit quiz based on a review sheet handed out one class period prior to the review.

Current Events Collection: Each week, beginning with week one, you will find an article about the Earth’s Systems from a current, printed newspaper or magazine (not the internet), and will write a brief (2-paragraph) synopsis of the article. Comment on how the subject relates to the Earth’s systems. Each article should be dated and attributed. The articles and the synopses, which will total 14 in number, will be pasted into a notebook for submission.

Final Project: Students will complete a “Flow Chart” showing how a process active in the Earth’s Lithosphere or Hydrosphere systems (e.g. flooding, earthquake, volcanic eruption, glacial collapse/retreat) creates an environmental change. The chart will trace the change through the environment, showing how it affects the economy, public health, ecosystems, human life, etc. The chart will also show, with examples (maps, graphs, satellite images), the kind of resources that scientists use to study and show these environmental changes. Final Projects will be presented to the class using PowerPoint software or as a poster. This project serves as the final exam.

Your final grade will be calculated as follows:

Test average 50%
Current events notebook 25%
Flow Chart Project and Final Presentation 25%

Academic Honesty Policy: Cheating and plagiarism of any sort will not be tolerated. Plagiarism is the use of someone else’s ideas or words as your own. This definition includes copying another student’s exam or assignment, as well as using material from a book or Internet site without acknowledging the source. If you plagiarize any part of an assignment for this course, you will receive a zero for the entire assignment, and disciplinary action will be taken. Please refer to page 82 of the Student Handbook for further definitions and penalties.
<table>
<thead>
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<th>Week</th>
<th>Lecture</th>
<th>TOPIC</th>
<th>Chapter</th>
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<tr>
<td>August 16</td>
<td>Lecture</td>
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<tr>
<td>Aug 21, 23</td>
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<td>Geographer's Tools; Geographic Grid; Maps</td>
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<td>Lecture</td>
<td>Geospatial Tools: Remote Sensing, GPS, GIS</td>
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<td>Aug. 28, 30</td>
<td>Lecture</td>
<td>Earth Structure; Geologic Time</td>
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<td>Rock Cycle</td>
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<td>Sept. 4, 6</td>
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<td>Tectonic Processes; Plate Tectonics</td>
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<td>Crustal Deformation; Earthquakes</td>
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<td>Volcanoes</td>
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<td>Lecture</td>
<td>Review</td>
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<td>The Appalachians</td>
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<td>Sept. 25, 28</td>
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<td>Soils</td>
<td>11</td>
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<td>Oct. 2, 4</td>
<td>Lecture</td>
<td>Ground Water; Karst</td>
<td>15</td>
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<td>Oct. 9, 11</td>
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<td>Fluvial Systems</td>
<td>16</td>
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<td>Lecture</td>
<td>Fall Break</td>
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<td>Oct. 16, 18</td>
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<td>Review</td>
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<td>Lecture</td>
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<td>Oct. 23, 25</td>
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<td>Nov. 1</td>
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<td>Eolian Processes</td>
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<td>Nov 8, 8</td>
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<td>Nov. 13, 15</td>
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<tr>
<td>Nov. 27, 29</td>
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<td>Final presentations; turn in notebook</td>
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<td>Final presentations</td>
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<tr>
<td>Dec. 11</td>
<td>Final presentations</td>
<td></td>
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</tbody>
</table>
Proposed Course:
GEOG 1112 Weather and Climate
GEOG 1112L Weather and Climate Lab

Catalog Description:
Directed towards science majors, this course investigates Earth’s atmospheric system including climate and weather, and its influence on the biosphere system (ecosystems and biomes). This course looks at a local, regional, and global geographic relationships among these systems, including an introduction to climate change from historical and predictive perspectives. Students will engage in hands-on, field-based environmental observations in the laboratory portion of the class.

Course Objectives

During this course students will
- Communicate effectively using the terminology of Atmospheric Science
- Master the basic concepts of atmospheric processes
- Appreciate the influence of atmospheric processes on biogeography
- Collect, analyze, and interpret weather data from multiple sources, including direct observations, internet sources, and satellite remote sensing
- Utilize geospatial technology to map and interpret climate change
- Connect physical processes in the atmosphere to Earth surface processes
- Recognize links between physical processes in the atmosphere, biogeographic regions, and human geography.

Textbook (class)

GEOSYSTEMS (with Atlas). R.W. Christopherson, ed. 5e. Prentice Hall.

Laboratory Manual


Assessment and Grading Policy (class)

1. There will be four exams, including the final. Each exam will include the material covered since the previous exam. Exams will be multiple choice. Each exam will comprise 20% of the class grade.
2. Students will design and perform a scientific research project, using accepted inquiry standards, and produce a report documenting their research. The report will comprise 20% of the class grade.
3. Students will compile a weekly “events log” concerning weather and climate events, comprised of newspaper articles documenting impacts on human society.
4. Grades will be assigned > 90% = A; 80-89% = B; 70-79% = C; 60-69% = D; < 60% = F.
### CLASS SCHEDULE

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPIC</th>
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<tr>
<td>1</td>
<td>Essentials of Geography</td>
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<tr>
<td>2</td>
<td>Solar Energy and the Seasons</td>
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<td>3</td>
<td>Energy Balances</td>
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<tr>
<td>4</td>
<td>Review and Test</td>
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<tr>
<td>5</td>
<td>Atmospheric Pressure and Composition</td>
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<tr>
<td>6</td>
<td>Global Temperatures</td>
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<td>7</td>
<td>Atmospheric Moisture</td>
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<td>8</td>
<td>Review and Test</td>
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<td>9</td>
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<td>Meteorology</td>
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<td>Climate</td>
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<td>12</td>
<td>Review and Test</td>
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<td>13</td>
<td>Ecosystems</td>
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<td>14</td>
<td>Biomes</td>
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<td>15</td>
<td>Impact of Weather and Climate on Human Society</td>
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<tr>
<td>16</td>
<td>Review and Test</td>
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### LAB SCHEDULE

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<tr>
<th>WEEK</th>
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<tbody>
<tr>
<td>1</td>
<td>Fundamental Geographic Concepts</td>
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<tr>
<td>2</td>
<td>Earth-Sun Relationships</td>
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<tr>
<td>3</td>
<td>Test</td>
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<tr>
<td>4</td>
<td>Earth's Energy Balance</td>
</tr>
<tr>
<td>5</td>
<td>Atmospheric Composition</td>
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<tr>
<td>6</td>
<td>Earth's Atmospheric Pressure</td>
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<tr>
<td>7</td>
<td>Test</td>
</tr>
<tr>
<td>8</td>
<td>Temperatures Concepts and Patterns</td>
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<td>9</td>
<td>Atmospheric Moisture</td>
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<td>10</td>
<td>Global Circulation</td>
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<td>Test</td>
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<td>13</td>
<td>Climate</td>
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<tr>
<td>14</td>
<td>Ecosystems; Biomes</td>
</tr>
<tr>
<td>15</td>
<td>Test</td>
</tr>
</tbody>
</table>
GEOG 1112
Weather and Climate

Learning outcomes tied to the Core:

1. Encourage the development of written and oral communication skills and critical thinking within the broader academic context. A written report documenting a scientific research project, written in a recognized scientific format including citations, will be required of each student. Students will be required to turn in an initial outline, followed by a rough draft, for approval by the instructors. This project will require critical analysis and interpretation of scientific data.

2. Permit opportunities for interdisciplinary learning. Earth’s weather and climate impact all Earth surface phenomena, from economics to public health to agriculture, with profound influence on society and culture. Throughout the semester these impacts will be the subject of an ‘events log’ that documents the impact of current weather phenomena on human society.

3. Include offerings that reflect the special characteristics of the institution. Many of our students are from the local area, and this course highlights local and regional environmental issues related to weather and climate in order to engage students’ interest. The required research report fits well with the institution’s emphasis on undergraduate research.

4. Feature international components that increase global awareness and introduce the student to different cultural perspectives. The study of climate and climate change is a global undertaking. Many cultural characteristics reflect local and regional climatic influence (e.g. architecture, agriculture, and livelihood).

5. Include an informed use of information technology. This class will introduce students to software and internet resources for topics, data, and analytical tools to use in completing their research projects. The science of weather and climate has benefited perhaps more than any other science from the advent of the internet, with its associated wide dissemination of real-time weather data.

6. Employ pedagogy designed to increase intellectual curiosity and to initiate a continuing interest in the subject matter. Inclusion of local and regional examples of the impact of weather events and climate change, putting the course content in a more immediate perspective, will engage student curiosity effectively. Availability of weather information allows the analysis of local to global events in a real-time context.

7. Feature courses that are challenging and rigorous and provide learning experiences that distinguish a field. Physical Geography is distinguished by geospatial technology and human/environmental interactions. It also maintains an Earth Systems perspective, emphasizing connections among Earth Systems. Weather and Climate incorporates these perspectives.
8. Introduce the methods used by technical and scientific professionals, such as the evaluation of empirical data, problem recognition, problem definition, the application of scientific principles, and logical problem solving. The student will interact with a variety of data and data sources, using accepted analysis tools and techniques. The required research report, which will conform to academic and scientific standards, will develop and demonstrate problem definition and logical problem solving skills.

9. Be cohesive and provide entry to both specialized studies in the students chosen field and remaining course (whether upper or lower division) in the institutions general education curriculum. The course will provide a foundation for subsequent upper level courses the Physical Geography B.S. program. It emphasizes skills and perspectives relevant to any science major, and provides non-science majors with a broad-based introduction to Earth Science and scientific techniques and skills.

10. Be designed with the assumption that students have met all admissions standards to the institution (with appropriate academic support provided for those who have not).
Geography 1112: WEATHER AND CLIMATE

COURSE DESCRIPTION: An introduction to weather and climate including influences on the biosphere (ecosystems and biomes). This course looks at local, regional, and global geographic relationships among atmospheric and biospheric systems, including an introduction to climate change. Lectures focus on the physical processes that interact to create the diversity of landscapes found on earth. The interlocking systems of climate, vegetation, and landforms are examined in turn. Topics include the elements and controls of climate, the general atmospheric circulation, precipitation and storms, the hydrological cycle, global climatic patterns, climate change, and world patterns of vegetation.

INSTRUCTOR: Dr. Georgina DeWeese. Geography Bldg Room 3, 678-839-4065. gdwseese@westga.edu. Office hours: 2-4pm MW or by appointment.

LECTURES: Tuesday and Thursday, 9:30–10:45 am. Geography Bldg Room 2. Attendance is required.


Note on Reading Assignments: Readings should be done before attending lecture. Listen for additional reading assignments that will be given during lecture. Finally, pay close attention to the maps, figures, and photographs in the book (which are generally of very high quality), and to their captions. Use them to test yourself on your understanding of the course material.

GRADING AND EXAMINATIONS: The 1st and 2nd exams will be given in class on September 20 and October 23. No makeup exams will be given for any reason.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Exam/Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100–89.50%</td>
<td>Exam 1: 100 pts</td>
</tr>
<tr>
<td>B</td>
<td>89.49–79.50%</td>
<td>Exam 2: 100 pts</td>
</tr>
<tr>
<td>C</td>
<td>79.49–69.50%</td>
<td>Final exam: 100 pts</td>
</tr>
<tr>
<td>D</td>
<td>69.49–59.51%</td>
<td>Attendance: 50 points</td>
</tr>
<tr>
<td>F</td>
<td>anything below 59.51%</td>
<td>Writing Assignments: 50 pts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total: 400 pts</td>
</tr>
</tbody>
</table>

The Final exam will be held Thursday, December 13th 8-10am in Geography Room 2. If you miss the final exam for any reason, it is your responsibility to contact the professor by 3 p.m. that day. Final exam makeups will only be given for medical absences (and you must have proof it was a medical emergency...no sore throats) or for other absences specifically and individually approved by the instructor.

OTHER STUFF: (1) No extra-credit: Students will not be permitted to do extra work or resubmit work to improve their course grade either during or after completion of the course.

(2) Disability Statement: If you require course adaptations or accommodations because of a documented disability, or if you have emergency information to share, please contact the Office of Disability Services. It is the student’s responsibility to alert the instructor and teaching assistants of documented special needs.

(3) Cheating: If you are caught cheating on an exam, you will receive a 0 for that exam. Cheating on writing assignments includes copying or turning in someone else’s work and will also result in a 0 for that assignment.
<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Topic</th>
<th>Reading</th>
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<tbody>
<tr>
<td>Thurs, Aug 16</td>
<td>Course Mechanics</td>
<td></td>
</tr>
<tr>
<td>Tues, Aug 21</td>
<td>Introduction to Physical Geography</td>
<td>Ch. 1, 2</td>
</tr>
<tr>
<td>Thurs, Aug 23</td>
<td>Earth-Sun Geometry</td>
<td>Ch. 3</td>
</tr>
<tr>
<td>Tues, Aug 28</td>
<td>Seasons</td>
<td>Ch. 3</td>
</tr>
<tr>
<td>Thurs, Aug 30</td>
<td>The Global Energy System</td>
<td>Ch. 4</td>
</tr>
<tr>
<td></td>
<td>The Atmosphere Part 1</td>
<td></td>
</tr>
<tr>
<td>Tues, Sept 4</td>
<td>The Global Energy System</td>
<td>Ch. 4</td>
</tr>
<tr>
<td>Thurs, Sept 6</td>
<td>The Atmosphere Part 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Temperature Patterns</td>
<td>Ch. 4, 5</td>
</tr>
<tr>
<td>Tues, Sept 11</td>
<td>Atmospheric Circulation</td>
<td>Ch. 6</td>
</tr>
<tr>
<td>Thurs, Sept 13</td>
<td>Oceanic Circulation</td>
<td></td>
</tr>
<tr>
<td>Tues, Sept 18</td>
<td>Review</td>
<td></td>
</tr>
<tr>
<td>Thurs, Sept 20</td>
<td>Exam 1</td>
<td></td>
</tr>
<tr>
<td>Tues, Sept 25</td>
<td>Water and Atmospheric Moisture</td>
<td>Ch. 7</td>
</tr>
<tr>
<td>Thurs, Sept 27</td>
<td>Lapse Rates and Clouds</td>
<td>Ch. 7</td>
</tr>
<tr>
<td>Tues, Oct 2</td>
<td>Lifting Mechanisms, Air Masses, &amp; Fronts</td>
<td>Ch. 7, 8</td>
</tr>
<tr>
<td>Thurs, Oct 4</td>
<td>Violent Weather</td>
<td>Ch. 8</td>
</tr>
<tr>
<td>Tues, Oct 9</td>
<td>Violent Weather</td>
<td></td>
</tr>
<tr>
<td>Thurs, Oct 11</td>
<td>No class</td>
<td></td>
</tr>
<tr>
<td>Tues, Oct 16</td>
<td>Movie</td>
<td></td>
</tr>
<tr>
<td>Thurs, Oct 18</td>
<td>Review</td>
<td></td>
</tr>
<tr>
<td>Tues, Oct 23</td>
<td>Exam 2</td>
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<tr>
<td>Thurs, Oct 25</td>
<td>Climate Classification</td>
<td>Ch. 9</td>
</tr>
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<td>Tues, Oct 30</td>
<td>Climate Classification</td>
<td>No class</td>
</tr>
<tr>
<td>Thurs, Nov 1</td>
<td>No class</td>
<td></td>
</tr>
<tr>
<td>Tues, Nov 6</td>
<td>Climate Change</td>
<td></td>
</tr>
<tr>
<td>Thurs, Nov 8</td>
<td>Movie</td>
<td></td>
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<td>Tues, Nov 13</td>
<td>Climate Change</td>
<td>Ch. 9</td>
</tr>
<tr>
<td>Thurs, Nov 15</td>
<td>Movie</td>
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<td>Tues, Nov 20</td>
<td>Climate Change</td>
<td></td>
</tr>
<tr>
<td>Thurs, Nov 22</td>
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<tr>
<td>Tues, Nov 27</td>
<td>Biomes</td>
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<tr>
<td>Thurs, Nov 29</td>
<td>Biomes</td>
<td></td>
</tr>
<tr>
<td>Tues, Dec 4</td>
<td>Review</td>
<td></td>
</tr>
</tbody>
</table>
UNIVERSITY OF WEST GEORGIA
DEPARTMENT OF GEO SCIENCES

Geography 1112L: WEATHER AND CLIMATE LAB

COURSE DESCRIPTION: An introduction to weather and climate including influences on the biosphere (ecosystems and biomes). This course looks at local, regional, and global geographic relationships among atmospheric and biospheric systems, including an introduction to climate change. Lectures focus on the physical processes that interact to create the diversity of landscapes found on earth. The interlocking systems of climate, vegetation, and landforms are examined in turn. Topics include the elements and controls of climate, the general atmospheric circulation, precipitation and storms, the hydrological cycle, global climatic patterns, climate change, and world patterns of vegetation.

INSTRUCTOR: Dr. Georgina DeWeese. Geography Bldg Room 3, 678-839-4065. gdeweese@westga.edu. Office hours: 2-4pm MW or by appointment.

LECTURES: Thursday 3:00–4:50 pm. Callaway 207. Attendance is required.


Note on Reading Assignments: Readings should be done before attending lecture. Listen for additional reading assignments that will be given during lecture. Finally, pay close attention to the maps, figures, and photographs in the book (which are generally of very high quality), and to their captions. Use them to test yourself on your understanding of the course material.

GRADING AND EXAMINATIONS: The 1st and 2nd exams will be given in class on September 27th and November 29th. No makeup exams will be given for any reason.

A = 100–89.50%  Exam 1: 50 pts
B = 89.49–79.50%  Exam 2: 50 pts
C = 79.49–69.50%  Lab Exercises: 300 pts
D = 69.49–59.51%  Total: 400 pts
F = anything below 59.51%

Lab Exercises are worth 20pts each. You may work in small groups, HOWEVER each student must turn in an individual and unique lab exercise.

The Final exam will be held Thursday, November 29th in class. If you miss the final exam for any reason, it is your responsibility to contact the professor by 3 p.m. that day. Final exam makeup will only be given for medical absences (and you must have proof it was a medical emergency...no sore throats) or for other absences specifically and individually approved by the instructor.

OTHER STUFF: (1) No extra-credit: Students will not be permitted to do extra work or resubmit work to improve their course grade either during or after completion of the course.

(2) Disability Statement: If you require course adaptations or accommodations because of a documented disability, or if you have emergency information to share, please contact the Office of Disability Services. It is the student's responsibility to alert the instructor and teaching assistants of documented special needs.

(3) Cheating: If you are caught cheating on an exam, you will receive a 0 for that exam. Cheating on lab exercises includes copying or turning in someone else's work and will also result in a 0 for that assignment.
<table>
<thead>
<tr>
<th>Date</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thurs, Aug 16</td>
<td>Introduction and Course Mechanics</td>
</tr>
<tr>
<td>Thurs, Aug 23</td>
<td>Exercise A: Geographic Grid, Shape, and Size of the Earth</td>
</tr>
<tr>
<td>Thurs, Aug 30</td>
<td>Exercise B: Earth Motions, Earth-Sun Relations as Viewed from Space</td>
</tr>
<tr>
<td></td>
<td>Exercise C: Earth-Sun Relations: Observations Made from the Earth</td>
</tr>
<tr>
<td>Thurs, Sept 6</td>
<td>Exercise D: Time</td>
</tr>
<tr>
<td></td>
<td>Exercise E: The Atmosphere and the Solar Radiation Budget</td>
</tr>
<tr>
<td>Thurs, Sept 13</td>
<td>Exercise F: Temperature and the Earth Heat Budget</td>
</tr>
<tr>
<td>Thurs, Sept 20</td>
<td>Exercise G: Atmospheric Pressure, Winds, Ocean Currents, and El Nino</td>
</tr>
<tr>
<td></td>
<td>Exercise H: Atmospheric Moisture, Clouds, and Precipitation Types</td>
</tr>
<tr>
<td>Thurs, Sept 27</td>
<td>Exam 1</td>
</tr>
<tr>
<td>Thurs, Oct 4</td>
<td>Exercise I: Air Masses, Fronts, and Midlatitude Cyclones</td>
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<td>Exercise J: Thunderstorms</td>
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<td>Thurs, Oct 11</td>
<td>No class</td>
</tr>
<tr>
<td>Thurs, Oct 18</td>
<td>Exercise K: Tornadoes</td>
</tr>
<tr>
<td></td>
<td>Exercise L: Hurricanes</td>
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<td>Thurs, Oct 25</td>
<td>Exercise M: Climate Classification</td>
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<td>Thurs, Nov 1</td>
<td>No class</td>
</tr>
<tr>
<td>Thurs, Nov 8</td>
<td>Exercise N: The Tropical Rainy Climates (A) and The Dry Climates (B)</td>
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<tr>
<td>Thurs, Nov 15</td>
<td>Exercise O: The Humid Mesothermal Climates (C), The Humid Microthermal</td>
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<tr>
<td></td>
<td>(D), and the Polar Climates (E)</td>
</tr>
<tr>
<td>Thurs, Nov 22</td>
<td>No class</td>
</tr>
<tr>
<td>Thurs, Nov 29</td>
<td>Exam 2</td>
</tr>
</tbody>
</table>
Additional Information:
At this time the BS in Geography is the only science degree where the majors can not take their key introductory classes in Area D Option II—Science Majors of the Core. This proposal is to correct this problem.
Course or Program Addition, Deletion or Modification Request

Department: Physical Education & Recreation  College: College of Education  

Current course catalog listing: (for modifications or deletions)  0 / 6 / 3

Prefix PHED Course 3602  Title Movement Analysis (Rhythms/Dance, Tumbling, Education games & Aquatics)  Hours: Lecture/Lab/Total

<table>
<thead>
<tr>
<th>Action</th>
<th>Credit</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ Course</td>
<td>☑ Undergraduate</td>
<td>☑ Every Term</td>
</tr>
<tr>
<td>☐ Modify</td>
<td>☐ Graduate</td>
<td>☐ Yearly</td>
</tr>
<tr>
<td>☐ Add</td>
<td>☐ Other*</td>
<td>☐ Other</td>
</tr>
<tr>
<td>☐ Delete</td>
<td>☐ Variable credit must be explained</td>
<td></td>
</tr>
</tbody>
</table>

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate  ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Prefix  Course  Title  Hours: Lecture/Lab/Total

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For SXXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Skill development and analysis; learning and application of motor skill analysis and teaching strategies and exposure to lifetime activities in each content area in a developmental model.

Prerequisite(s)

Present or Projected Enrollment: (Students per year)  Effective Date*: Fall 1/2007

*For a new course, one full term must pass between approval and effective date.

Grading System: ☑ Letter Grade  ☐ Pass/Fail  ☐ Other

Approval:

Department Chair  Date  Department Chair (if cross listed)  Date

Dean of College  Date  Dean of College (if cross listed)  Date

Chair of TEAC (if teacher prep. program)  Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduated credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee  Date  Chair, Committee on Graduate Studies  Date

Vice President for Academic Affairs  Date

Revised 1/09/02
Request:
Delete course - PHED 3602  Movement Analysis (Rhythms/Dance, Tumbling,
Educational Games & Aquatics)

Rationale:
This course has not been used for several years; not since the last undergraduate program
cchange. The current sequence of movement analysis courses is PHED 3601 and PHED
4601. This course is not needed as listed and described. The title, also, is out of sync
with other course titles. We would like to have the number freed up for use with other
future courses.
Addendum III
From Rural Roots to Global Reach
CELEBRATING A CENTURY OF SUCCESS

To: Dr. Randy Hendricks, President, Faculty Senate
University of West Georgia, Carrollton, GA  30018

Dear Dr. Hendricks:

Enclosed are materials that constitute a closing Centennial Report from the Centennial Celebration Steering Committee. These include:

(a) a copy of the Centennial Celebration Closing Ceremony, with a nearly-complete listing of the contents placed in the time capsule; [see forwarded separate e-mail from University Communications and Marketing]

(b) a description of the Centennial Tribute sculpture that was placed in front of the Campus Center – given to the university by the Carroll County Chamber of Commerce as an expression of appreciation for all the university has contributed to the community; [see attachment entitled “Centennial Symbolism.”]

(c) a description of the Centennial Quilt (along with a copy of the West Georgian that featured it). This quilt now hangs in the Special Collections area of the Ingram Library – given to the university by the West Georgia Quilters Guild in honor of the university’s Centennial celebration; [See attachment entitled “Centennial Symbolism.”]

(d) photos of both the Centennial Tribute sculpture and the Centennial Quilt; [provided in photo form – on disk]

(e) a copy of the “highlights of history” associated with the development of the University of West Georgia – updated since they were initially distributed in the summer of 2005. [See attachment entitled “Cenhist.”]

(f) a copy of the budget summarizing funds expended by the West Georgia Foundation for Centennial Celebration events. As one can see from reviewing this material, many events or activities normally funded by offices or departments on campus out of their annual budgets were funded likewise in 2006-2007, but carried a Centennial theme. In some cases, donors were found to cover the cost of events that were unique to the celebration of this year’s Centennial. [See attachment entitled “cenfundingreq.”]

It has been an honor and a privilege to serve as community co-chairs of the university’s Centennial celebration. So far as we have been able to determine, this celebration was well-supported and well-received by the majority of university stakeholders, and provided numerous opportunities for learning about, reflecting upon, and celebrating the university’s remarkable development over the past 100 years. Through the time-capsule ceremony, it also gave us a chance to express our hopes and best wishes for those taking the university into its second century.

Sincerely,

Anne C. Richards    Fred L. Richards
Centennial Celebration Closing Ceremony
August 17, 2007

Presiding
Lisa Ledbetter, University Liaison for the Centennial Celebration Steering Committee

Welcome
Lorene Flanders, Director of University Libraries

Centennial Reflection
Dr. Thomas J. Hynes, Vice President for Academic Affairs and Acting University President for the Centennial Year

Student Reflection
Rob Kelly, Student Government Association President

Alumni Reflection and Recognition of Decade Representatives
Donnie Newsom, National Alumni Association President

Presentation of Time Capsule
Dr. Steve Goodson, Chair of the Time Capsule Committee

Presentation of Centennial Quilt
West Georgia Quilters Guild Representative

Centennial Closing Reflection
Drs. Anne and Fred Richards, Community Co-Chairs of the Centennial Celebration Steering Committee

Second Century Vision
Dr. Beheruz N. Sethna, University President

From Rural Roots to Global Reach
Time Capsule Contents

Bowdon College: A Glorious History
Campaign To Build a West Georgia Stadium DVD
Carroll County Superior Court Minutes from April 1908 Term (contains statement about the Fourth District Agricultural and Mechanical School)
Centennial A DAY for West Georgia Brochure, Invitations and Run for A DAY T-Shirt
Centennial Annual Report and Honor Roll of Donors for the University of West Georgia Foundation, Inc.
Centennial Banner
Centennial Bookmark
Centennial Celebration Gala Program and Photo Holder
Centennial Embroidered T-Shirt
Centennial Homecoming Brochure
Centennial Homecoming T-Shirt with Centennial Logo
Centennial Homecoming T-Shirt with Wolves Logo
Centennial Necklace
Centennial Pin
Centennial Sculpture Tile and Article
Centennial Stamps and Forever Stamps
Centennial Tree Planting Ceremony Brochure
Centennial University Calendar
Centennial Window Stickers
College of Arts and Sciences
Fall 2006 Course Offerings
Department of Economics Brochure
Department of Special Education and Speech-Language Pathology Brochure
Departmental Letters from Leslie Townsend Cottrell, Director of Health Services, and Bonnie Stevens, Registrar
2007 Eclectic Student Literary and Fine Arts Journal
Goo Goo Dolls Concert Poster, Postcard, Ticket and Tent Card

Ingram Library Bookmarks
2007 Learning Festival DVD of Presentation by Dr. Beherez N. Sethna, UWG President
Music Graduate Study DVD
National Alumni Association Awards Luncheon and Annual Meeting Program
Nursing Program Stethoscope and Nursing Jacket
Perspective Alumni Magazine
Theatre Brochure
Theatre Playbills for Centennial Performances, including Episodes in Sexuality — Respect: Personal, Local and Global and The West Georgia Stories: From Rural Roots to Global Reach
Theatre Posters for Centennial Performances of Crumbs from the Table of Joy, Grapes of Wrath, Durang Durang...Durang, Durang and Episodes in Sexuality — Respect: Personal, Local and Global
Theatre Tickets for Centennial Performances
University Police Pin
UWG Campus Aerial Photo from the Department of Geosciences
UWG Ceramic Coffee Mug
UWG Commencement Program for May 2007
UWG Concert Choir Performance CD and Program for The Armed Man: A Mass for Peace
UWG Connection and Student Handbook
2006-07 UWG Fact Book
UWG “Family Tree” Song CD and Lyrics
UWG Historical Highlights
UWG Student ID Card
UWG Student Photos
UWG Visual Identity and Licensing Guidelines
UWG Wolves Ceramic Tile
UWG Wolves Magnetic Sticker
West Georgia T-Shirt
The West Georgian Student Newspaper
Centennial Tribute (sculpture in front of Campus Center)

"Centennial Tribute" was created and designed by Helen Helwig and Machiko Ichihara for the University of West Georgia's centennial anniversary. Commissioned by the Carroll County Chamber of Commerce as a gift from the community, the concrete and clay mosaic sculpture was inspired by the McIntosh stone, the UWG flame, architectural elements of the Campus Center, and the upward movement associated with educational achievement.

The handmade mosaic pieces accent the various planes of the form and include references to the centennial theme, "From Rural Roots to Global Reach," as well as to the university's purpose and connections to the community.

The artists incorporated several thematic elements to symbolize aspects of the university's history. Arrowheads and Mississippian symbols represent the west Georgia area at the turn of the century. Impressions of machine parts and cotton flowers, bolls, leaves and seeds reflect the institution's rural roots as the Fourth District Agricultural and Mechanical School. A reference to the binary computer language through the use of the numerals "0" and "1" symbolizes the importance of technology and UWG's current global reach, and the university's centennial is represented by 100 stars, oak leaves and acorns, and triangles with incised words associated with the institution and its anniversary.

Centennial Quilt

The quilt made by the West Georgia Quilters Guild in celebration of the University of West Georgia's centennial is composed of ten bands of different colors, symbolically representing the decades comprising the existence of the institution. The images in the lower sections are tree roots drawn from life on the West Georgia campus. The roots are metaphors for the university's humble beginnings as the Carrollton Agricultural and Mechanical School. On the right side of the quilt, the tree trunk morphs into one of the pillars of the Bonner House. Built in 1843, it is the oldest building on campus. On the left, the roots support the McIntosh Stone. The horse mounting stone, which served for a time as the logo of West Georgia, was moved in 1916 from the McIntosh Reserve to the A&M School.

The Kennedy Chapel is depicted above the McIntosh Stone. Attorney General Robert Kennedy attended the dedication of this interfaith chapel which was named in 1964 for his brother John F. Kennedy. Built in 1893, it is the second oldest building on campus.

The flame sculpture located at the university's main entrance, created by emeritus professor of Art Henry Setter, is shown in the central section of the quilt. The flame symbolizes the spark of intellect or the flame of knowledge.

At the top of the quilt, an embroidered section replicates a group of scenes from the Bayeux Tapestry, and represents the university's "global reach." West Georgia has various study abroad programs for its students, and among them is the Summer Art Program in Bayeux and Paris. Careful attention to the embroidery will reveal preparations for a journey over water. The section also shows some of the various activities one would encounter upon reaching one's destination. Thus, the golden band seems to be a fitting capstone to the theme, "From rural roots to global reach."

The quilt was designed by Bruce Bobick, emeritus professor of art, and was sewn together using various techniques, which included hand-piecing, appliqué, reverse appliqué, and embroidery. Because the quilt was pieced in sections, ten groups were able to work simultaneously on the piecing and embroidery. It is hand-quilted by twenty-five women and men of the West Georgia Quilters Guild to commemorate the Centennial of the University of West Georgia.
Time capsule seals centennial memories for future

By Lisa Meredith
Staff Writer
lmered11@my.westga.edu

In a resourceful attempt to preserve the University of West Georgia’s Centennial Celebration and our memories from the past year, the Centennial Committee has placed a time capsule filled with memorabilia from the Centennial year on display in Ingram Library, on the third floor across from Special Collections.

The time capsule was dedicated during a ceremony on Friday, August 17. It is in a case with a plaque, noting the date it was sealed and the date it is to be opened in 2057.

Some items that were not chosen to go inside the time capsule will be placed in a display case above the capsule, while others will be permanently archived in Special Collections.

Although traditionally time capsules are buried underground, the Centennial Committee researched time capsules and learned that experts recommend keeping them in a building rather than burying them, because many buried time capsules are eventually lost.

A quilt was also presented at the ceremony, crafted by the West Georgia Quilter's Guild. The quilt has various colors and patterns and was crafted by various community members.

The theme of the quilt is "From Rural Roots to Global Reach," which is the theme of the Centennial. The quilt will go on display inside the Special Collections room.

Inside the time capsule are 50 items specifically chosen as important memories from West Georgia’s Centennial celebration. Items include: t-shirts, ticket stubs, a fact book, posters from Townsend Center Centennial performances, Goo Goo Dolls ticket stubs and other souvenirs, a blank UWG student ID card, bookmarks, playbills, and much more.

Although an e-mail was sent to the student body last year asking for input on the capsule, Dr. Steve Goodson, chair of the time capsule committee, said that he received few student responses. Faculty and staff suggested most of the items that ended up going into the capsule.

In addition to providing ideas and items, some members of the faculty, such as President Behruz Sethna, wrote letters for the capsule addressed to future UWG faculty, staff, and students.

Thanks to the efforts of many people, bits and pieces of today’s UWG will be beautifully preserved for years to come.
HIGHLIGHTS OF HISTORY
associated with
the development of the

UNIVERSITY OF WEST GEORGIA

1906-1933  Agricultural and Mechanical School
1933-1957  West Georgia College (2-year)
1958-1996  West Georgia College (4-year+)
1996-2005  State University of West Georgia
2005-      University of West Georgia

(August, 2007)
HISTORICAL HIGHLIGHTS in THE DEVELOPMENT OF THE UNIVERSITY OF WEST GEORGIA

1906. General Assembly of Georgia passes Perry Act, creating an agricultural and mechanical school in each of the eleven (increased to twelve in 1919) congressional districts in the state. These A&M schools were secondary schools designed to prepare rural youth for farm life. Graduates were also qualified for college admission. The law stipulated that (1) all manual labor done on the campus and associated farms be performed solely by students; (2) instructors be employed in farm and mechanical work and in the care of livestock and dairying. One instructor in English was also required “and 9 other instructors if the funds of the college will permit.” Trustees consisted of one member from each county in the respective congressional districts. They were required to receive bids from communities seeking the location of a school, determine its location, erect buildings, name a principal and perform other duties necessary to get the school in operation.

1907. The 275-acre farm of Bluford A. Sharp, located west of Carrollton, was selected as the site of the Fourth Congressional District A&M School and purchased by the Trustees for $9,625.00. Inspection fees on fertilizers and oil (totaling $3,000. in 1907) were the only source of state funding designated as an appropriation to support the creation and development of A&M schools. The rest of the funds were to be raised by the Trustees.

1907. Three bids were considered, two of which came to approximately $48,000. each. The bid submitted by Joseph Aycock and Clifton Mandeville was accepted. These men had a background of financial and engineering skill and were also public-spirited. They agreed to do the work at cost plus one percent for their managerial efforts. Construction of the school buildings began early in 1907.

1907, Spring & Summer. The region underwent an economic crisis. The price of cotton fell to its lowest level in decades. Signs of a severe depression were evident. Some businesses failed. Many individuals and organizations defaulted on pledges to the school. Even the Carrollton City Council was unable to provide the electric lights it had promised. An injunction was filed by Wesley Domineck and others seeking to prevent the county from advancing $15,000. it had promised the school.

1907, July 9. Cornerstone on the academic building was laid. The event attracted to campus the largest group ever assembled in the county [estimated to be 12,000 in number], including then Governor Joseph M. Terrell. Event was preceded by parade led by Carrollton band seated on float drawn by 16 mules. Congressman William C. Adamson was master of ceremonies. A pot-luck picnic furnished food for all present.

1907, December 6. The family of John H. Melson, the first principal of the A&M school, arrived on the campus. Snow and ice covered the ground. The water was frozen. There were no electric lights, no walks or driveways.

1908, January. The Fourth District A&M School opened its doors under the leadership of Principal Melson. At the time, 39 counties in Georgia did not offer a single high school course; common schools supported by local taxes and tuition fees went no higher than the seventh grade. 91 students registered on opening day. 41 others drifted in during the next few weeks. School buildings were not only without central heat and electric lights but also lacked adequate equipment of all kinds. Doors to the dormitory rooms had not yet been installed; burlap and quilts were hung in lieu of doors. Classroom desks didn’t arrive until mid-February. Meanwhile, tables, chairs and kerosene lamps were placed in the lobby of the dormitory where a two-hour study period was observed each night. “We Learn to Do by Doing” was adopted as the motto for the school. When the school opened there were only two automobiles in Carrollton.

1908, January 27. Mrs. Penelope Stevens Melson, wife of the principal, became the de facto librarian when she conducted a “book shower.” This provided the nucleus of a library when 325 volumes of nondescript books and bound volumes of magazines were contributed by local citizens. The books were placed on a single shelf in the linen closet on the East side of the dormitory lobby. Not until 1925 was an official librarian employed. By this time the books were shelved in a converted classroom which contained 18,000 well-selected volumes.

There were problems assembling a faculty because few southern colleges produced those with the qualifications necessary. As a result, persons were employed from a distance whose credentials were difficult to appraise and who were unaccustomed to living in the area. The first faculty consisted of five people and the principal. Some discouraged easily. One departed before the end of the term. Most left after a few months. One much admired teacher, Ms. Laura Josephine
Rozar, recruited from a progressive school in Temple, GA, taught History and English. Her salary in 1913 was $82.50/month — the highest faculty salary with the exception of the agricultural teacher, whose stipend was $140.00/month. Teachers of that era also had to possess skills other than those employed in the classroom. The agricultural teacher, for example, operated the farm and had responsibilities for farm buildings, tools and equipment. The home economics teacher also ran the dining hall. The teacher of manual labor, shop and mechanical drawing was also the superintendent of buildings and grounds. The Math and Science teacher was also dormitory superintendent and responsible for all disciplinary matters arising from dorm life. Disciplinary punishments involved extra hours of manual labor to be performed on the farm or the campus. A rule required the presence of faculty in the classroom a full ten minutes before the beginning of a scheduled class.

1908, February 19. A newly-organized baseball team defeated Carrollton High School 16-4. The following day this team chose its official colors — dark blue and red. These became the school’s colors.

1908, March. Operating under primitive conditions, in the first week of March, 21 students were confined to their rooms with measles and there were 3 cases of pneumonia. One student died, several left campus and never returned.

1908, April 14. A Grand Jury concluded that the A&M College deserved the financial support of the county, stating: “...we deem it the patriotic duty of all our citizens to join hands in the moral and financial support of this institution so heavily fraught with the possibility of good to our own and to generations yet unknown.”

1908, April. Seats were installed in the auditorium when the First Baptist Church donated old pews as their building underwent a renovation.

1909, October. A ten-year-long tradition of holding a “Fourth District A&M Fair” was begun, held each October on the back campus. Activities included exhibits of farm products, crafts, culinary arts, along with entertainment such as a greased pig chase, and 3-legged races. Evening entertainment was of a carnival nature. One of the most popular attractions at these fairs was Miss Mahalay Lancaster’s fortune telling booth. These fairs were eventually relocated from campus, much to the relief of faculty, but continued as a county event.

1910, Fall. The A&M Fairgrounds provided the scene for what was perhaps the first football game ever played in western Georgia.

1911. Competition in track began.

1912. Today’s Honors College office building was built as the home of the A&M Principal, J.H. Melson, and until 1962 was located where Cobb Hall is now. It continued to serve as the home for principals/presidents of the institution until 1967. It was moved to its present location in 1962.

1913. A former Auburn player, Professor O.K. David, became the school’s first experienced football coach. The team was called the “A&M Tigers,” and later became the “Aggies.”

1916, Summer. The stone horse-mounting block belonging to Creek Indian Chief General William McIntosh was moved to the grounds of the A&M School from McIntosh’s plantation on the Chattahoochee River. McIntosh, who signed the treaty for removal of his tribe from the area had been murdered by members of his own tribe.

1917, May 18. The stone horse-mounting block, inlaid with a bronze tablet by the McIntosh chapter of the Daughters of the American Revolution, was laid as the cornerstone of the girls’ dormitory then being constructed.

1919. Principal Melson asked the governors of thirteen states for the gift of an oak tree variety native to their particular state to be planted on the front campus, which until that time had been a cotton field.

1919. Martha Munro joined the faculty as an English teacher after her father, George P. Munro, left the Board of Trustees.
1920. Carrollton High School inaugurated football, following which a great rivalry developed between teams associated with Carrollton High School and the Fourth District A&M School. Basketball came to be played as a winter sport.

1920, April 20. Irvine Sullivan Ingram, age 27, was hired as principal of the A&M School by the Trustees. His salary was set at $2,400. plus living quarters. He possessed the equivalent of a junior college diploma but subsequently earned the Bachelor's degree (1928) and the Master's degree (1933, from Emory University). His father died when Ingram was 19 years old and left him as the sole support of his mother and five younger brothers and sisters. When his father died, he also left a debt which his son elected to assume and gradually pay off. As fate would have it, one of the trustees who selected him as principal was the man who had been paid back by the son. Ingram later earned an honorary doctorate (Ed.D.) from Oglethorpe University. In 1921 he married Martha Munro. During the 1932-33 academic year, while he was granted a leave to study for the Master's, his wife, Martha Munro Ingram, served as Acting Principal. With the aid of two primary helpers, Johnny Shackelford and later Carl Sims, she also took beautification of the campus grounds as her special project, planting an assortment of flowers and shrubs at no expense to the campus. In the 1930s she was instrumental in establishing the basic landscaping patterns for the campus.

1920. The Smith-Hughes Vocational Education Act provided support to the teaching of agriculture and home economics in public high schools. The Barrett-Rogers Act and others led to consolidation of public schools and transportation of students by trucks and busses to consolidated schools.

1921. The General Assembly adopted a resolution to more closely scrutinize the operations of A&M schools. Principal Ingram fostered improvements of school standards, including emphasis on the literary phase of the curriculum.

1925, June 24. A state survey committee recommended that the A&M Schools be abolished after the 1925-26 session and their plants returned to the counties that had donated them.

1927, April. The Board of Trustees considered securing adequate funding by becoming a junior college, becoming strictly a trade school, or merging with Bowdon College, then ten miles west of Carrollton.

1928. A funding crisis led to temporary loss of accreditation from the Southern Association of Colleges and Secondary Schools.

1929, May. Then Governor of New York, Franklin D. Roosevelt, was commencement speaker at the Fourth District A&M School.

1929, July. A bill introduced in the state Senate to abolish all of the remaining A&M Schools was defeated.

1932, January 1. A legislature-enacted law became effective that organized Georgia's public institutions of higher learning into a unified system under a chancellor and a Board of Regents. The Board of Regents took the position that high school education was not an appropriate function of the state to perform, but should be left to local authorities such as municipalities and school districts.

1933. The state legislature granted the Board of Regents the authority to consolidate, suspend or discontinue institutions, merge departments, inaugurate or discontinue courses and readjust budgets and allocations as they considered appropriate.

1933, March. The Board of Regents announced plans to cease the operation of Bowdon College (which had begun in 1856) and all remaining A&M schools and to establish a new junior college on one of three campuses in West Georgia: Carrollton, Bowdon, or Powder Springs. Presentations of views and claims in support of given locations were invited at the Regents' meeting scheduled for April 15, 1933. A mass meeting at the Carrollton City Hall planned the community's procedure for a campaign to win approval of the Carrollton site. In the forefront of this activity was Irvine Ingram, though he had been told by one of the Regents that he could not expect to be named as its first President.

1933, April 15. The Board of Regents chose Carrollton's A&M School as the campus and Irvine S. Ingram as the new President of the college which they gave the name West Georgia College.
1933, April 24. Final commencement exercises were held for the A&M School.

1933, August 15. Annie Belle Weaver, newly-designated librarian, arrived on campus and discovered that the one-room library in the ground floor of the main building held not only books but also assorted campus records, correspondence, crates of insect exterminator and battered musical instruments. That afternoon the campus cat gave birth to six kittens on the desk where books were checked out.

1933, August. West Georgia College began enrolling its first junior college students. Outside the city limits of Carrollton, the college had its own postal address, known as GENOLA. The name derived from two women – Minna Ola Adamson, wife of Congressman W.C. Adamson of Carrollton and Eugenia Mandeville – daughter of Leroy Clifton Mandeville, Irvine Ingram was the postmaster of Genola.

1933, September 25. The first student body of West Georgia College assembled on the campus.

1933. The first Alumni Association was formed.

1933, October. The Debate Club was organized.

1930’s. During the early years of the College, the state of Georgia experienced constant fiscal troubles that prevented adequate funding of the University System but the multi-talented and resourceful faculty selected by Irvine Ingram seemed to thrive on adversity. They searched for alternate sources of funding and created by their own hands what was essential to their work.

1933. A majority of the student body chose the name “Hill-billies” as the school emblem. “Within an hour” after news of this selection had been made public on campus, petitions circulated to change the name. Finally “Braves” was selected in keeping with the area’s Indian heritage and based on the fact that students had found many arrowheads when working in the campus fields.

1933. Men’s and women’s glee clubs were organized. These gave joint concerts on special occasions and were combined into a single choir in 1940.

1933, Fall. The West Georgian began publication.

1934. The Chieftain, the yearbook of West Georgia College, first appeared.

1934, Spring. The teacher shortage in western Georgia schools had become critical. The State Department of Education assigned West Georgia College the summer task of training all teachers necessary to fill vacancies.

1935, March 1. West Georgia College’s first intercollegiate debate took place at Americus, GA.

1936, Autumn. The first national honor society at West Georgia, Phi Sigma Alpha, later Zeta Sigma Pi, an organization for students in the social sciences, was chartered.

1937, January. President Ingram sent a proposal for an experimental rural education project to the Julius Rosenwald Fund in Chicago, IL. The fund was noted for its assistance to Negro education in the South. This proposal involved:

- Creation of a cooperative program with the Carroll County Board of Education to provide teaching aids for county schools;
- A College take-over of a rural school in the Tallapoosa community to supplement its teacher-training programs and provide innovative ideas for the entire community;
- Creation of a cooperative program with the Carroll County Board of Education and the Jeannes Foundation to study black education in the county at the elementary level;
- Inauguration of rural arts life courses;
- Study and plan for the teaching of English in rural schools.
Over a period of ten years, the Fund invested almost $250,000. in West Georgia College. It also almost cost President Ingram his job as then segregationist Governor Eugene Talmadge was a bitter enemy of the work of the Rosenwald Fund. Mrs. H.M. (Nettie Talmadge) Tyus of Carrollton, sister to Eugene Talmadge, intervened to prevent the governor from firing Ingram in one instance, and S.K. Ayers of Sand Hill, President of the local school trustees, intervened in another instance. Meanwhile, officials at what are now Georgia Southern and University of Georgia were dismissed by a Talmadge-packed Board of Regents in 1941 on racial and political charges less substantial than those they could have lodged against Ingram.

1937, May.  West Georgia hosted the first junior college debate tournament ever held in the state.

1937. The West Georgian was named the Best Junior College newspaper in the state at the Georgia Collegiate Press Association meeting in Savannah, GA. The 1937 edition of The Chieftain was dedicated to Margaret Mitchell and featured “Gone with the Wind” as its theme.

1937, Fall. Prize money was offered by various segments of the campus to choose a new and a distinctive alma mater. The award went to Aaron Buckalew for “West Georgia Alma Mater” for which he had composed both words and music. The new alma mater replaced the old in 1938.

1937, Fall. West Georgia College became one of seven schools in the state chosen as the site of a National Youth Administration (NYA) residential work center that, among other things, made wooden rifles for military drill purposes and became a national defense unit in 1940.

1939. The first constitution of the Alumni Association was adopted.

1939, June 7. The first Alumni Day was held.

1940. A third year of preparation for those pursuing careers in education was added to West Georgia’s two-year program, financed by the Rosenwald Fund.

1940, May 28. The first Honors Day was held. Students who had made the Dean’s list for at least two quarters since entering College and those who excelled in extra-curricular activities were honored.

1942. The first Watson Awards were given, named for the late Gordon Watson, an effective professor of English and accomplished artist who was a native of Rome, GA and died while teaching a class on campus in June, 1941.

1946. Within a three-month period, Carroll County schools were highlighted in Look, Saturday Evening Post and The New York Times for their innovative efforts. In November of 1946, the Saturday Evening Post carried an article by Norman Rockwell, illustrated with the artist’s paintings and drawings made on location at Oak Mountain School, one of those cooperating with West Georgia College.

1947. The first homecoming was held.

1948. The first contemporary play from Broadway, Kiss and Tell, was performed on campus, directed by William H. Row.

1949, November. The first meeting of the “College in the Community” (later named “College in the Country”) was held. This was a program of adult education aimed at reaching many in the community who, because of the Depression, had been unable to continue their education. WGC attained world-wide prominence for this program in the 1950’s. This eventually became the Division of Continuing Education on campus.
1953. The "Studycade" was inaugurated—a classroom on wheels which took local citizens by chartered bus into distant communities in the US and Canada for comparison and exchange of ideas.


1954. The Delbert Clark Award was instituted on the West Georgia College campus and became the premier recognition for adult educators in the nation. Recipients of this award included Ralph McGill, Norman Cousins and the Reverend Theodore Hesburgh, who received the last award to date in 1984.

1957. West Georgia College entered the senior college era.

1959, March. West Georgia College was authorized to grant the AB degree with majors in Math, History and English. In 1960, major in Biology added.

1960. William H. Row, former academic dean of the College who had come to West Georgia in 1946 as teacher of speech and drama and chair of the Division of Language, Literature and the Arts, became President of West Georgia College. He held the MA from Teachers College of Columbia University and the Ed.D. from New York University, where his doctoral dissertation was an evaluation of the teacher education program at West Georgia. He was actively involved in Kiwanis International, the Presbyterian Church, and the Boy Scouts. Unfortunately, a fatal heart attack removed him from the presidency after only 9 months. Upon his death, former president Irvine S. Ingram returned as acting President and retired again after naming his successor a second time.

1960, Fall. A West Georgia College chapter of the American Association of University Professors (AAUP) was formed on the campus. Dr. Richard Johnson, professor of Biology, was its first president.

1961, August. James E. Boyd became President of West Georgia College. A Phi Beta Kappa graduate of the University of Georgia, he was also a member of the Junior College faculty from 1933-1935, serving for two years as head of the Mathematics and Science Department. In 1934, he married the former Elizabeth Reynolds Cobb, a Carrollton native, whose mother was at one time a Trustee of the Fourth District A&M School. He received the MA from Duke University in Mathematics and the Ph.D. in Physics from Yale University and was also one of the key persons in the development of Georgia Tech's nuclear program.

1962. *Studies in the Social Sciences*, the first academic journal published on the campus, was launched.

1962. The first alumni newspaper was published, the *WGC Newsletter*.

1963, Summer. The first Black student, Mrs. Lillian Williams, enrolled at WGC.

1964. Then Attorney General Robert Kennedy came to campus for dedication of the campus chapel as the Kennedy Chapel in honor of the late President John F. Kennedy. Constructed in 1893 in downtown Carrollton and used by the Episcopal Church and later by the Catholic Church, it was moved to the campus in 1964.

1964, Spring. A Fine Arts Festival was inaugurated.

1965. The student-edited literary and art magazine, *The Eclectic*, was established, originally as a quarterly publication. It is now published annually.

1965-1966. The library began cataloguing books according to the Library of Congress System rather than the Dewey Decimal system. The first Xerox copier was acquired by the Library for student use.

1967. The M.C. Roop property on Maple Street and Forrest Drive was purchased as a home for the President of the College.
1967-1968. Campus unrest increased due, in part, to wider use of alcohol and drugs and national conflict over the Vietnam War. Tensions also arose over censorship regarding campus publications, or lack of it. The institution struggled through drug raids, bomb threats, anti-war protests and various disturbances as well as a country commune known as Keystone (established as a “free university” primarily by psychology students).

1967. The West Georgia College Foundation was established to work for the advancement of the college by receiving and administering private funds. Dr. Steve-Worthy, an alumnus of the A&M school (1929) and prominent local physician, was its first chairman. Initial funding of Foundation programs came from a $100. assessment of each Trustee, including Lamar Plunkett, Ted Hirsch, Tracy Stallings, A.J. André, MacGregor Flanders, S.W. Hubbard, I.S. Ingram, Roy Richards, and Robert D. Tisinger.

1967. Graduate work instituted with MA degrees in English, History and Psychology and the M.Ed. for Certification purposes. The West Georgia College Review came into being.

1967-1968. The Division of Graduate Studies was established.

1968-1969. The college received its first Callaway Professorship, held by Dr. Howard Taylor, Professor of Mathematics.

1968-1969. Sororities and Fraternities were organized on campus and became nationally affiliated in 1970 and 1971.

1968, Winter. Residents of Roy and Boykin Hall proposed a faculty/course evaluation which the Student Government Association adopted as a project.

1968. Debates’ winning ways began with team of Tommy Greer and Kent Walton. The Debate Coach was Peter Vanderhoof. Assistant Coach was Chester Gibson.

1969, January. At the request of the local chapter of the AAUP, President Boyd appointed a committee to prepare guidelines for the establishment of a College Senate.

1969, March. Faculty Evaluation project administered randomly and sold by the Student Government Association to the student body.

1969, July 1. Clois T. Reese became the first black secretary employed on campus. Her secretarial responsibilities were associated with the operation of four departments: History, Political Science, Geography and Sociology.

1969-1970. The first black faculty member was employed: Charles Wilson – formerly an Assistant Principal in Carrollton High School. He initially served as a counselor and later as head of the College’s Developmental Studies program.


1971, March. James E. Boyd left West Georgia College to become Vice Chancellor for Academic Development in the University System. Within a month he was chosen as Interim President of Georgia Tech.

1971, Spring/Summer Quarters. George W. Walker, former Vice President, served as Acting President of West Georgia College.

1971, Spring. Ward Pafford, a Phi Beta Kappa graduate of Emory University with a Ph.D. from Duke University, was appointed as president of WGC. Then Governor Jimmy Carter was among those attending his inauguration on October 29, 1971. Pafford was a widely-published specialist in nineteenth-century English literature and had performed editorial work for several scholarly publications. Under his administration, the divisional organization of the college was changed to a school structure.

1972. The Debate team rose from regional to national prominence by qualifying for the National Debate Tournament for the first time.


1972, Fall. The alumni news magazine, The Perspective, began publication. This replaced the former newsletter.

1972-1973. Ad Hoc Committee on Faculty Governance revised the proposal for establishing a College Senate. Restricting student participation to committees and designating the college President as the presiding officer (with veto power), the measure won approval from the Chancellor’s office.

1973, Spring. Organizational meeting of the Faculty Senate took place, with Lemuel M. Norrell of the English Department as its first Executive Secretary.

1973, May. West Georgia was approved for a chapter of Phi Kappa Phi, a national honor society encompassing all academic areas.

1974. Men’s basketball team, under Coach Roger Kaiser, won the national NAIA playoffs. The Lady Braves Basketball team, under Barbara Brown, won a state championship.

1975. Lady Braves basketball team won the state title and ended the season as runner-up to the national champions.

1975, July. Maurice K. Townsend, a political scientist who was inducted into Phi Beta Kappa at Boston University in 1949 became West Georgia College’s fifth president. He held MA and Ph.D. degrees from the University of Chicago. His first major construction project was expansion of the college library. In the course of his presidency he personally donated 6,905 volumes to the library.

1975, September 23. Registration day on campus, Hurricane Eloise hit the campus about 2 pm., destroying many trees on the front campus.

1979, November. The observatory opened on the West Georgia campus.

1978, June. The two-year nursing program won accreditation from the National League of Nursing.

1980. West Georgia’s 23-year-long-dormant intercollegiate football team was re-established.

1980. The College adopted a new logo, patterned by sculptor Henry Setter of the Art Department on the horse-mounting block of Creek Indian Chief William McIntosh.

1980. An addition to the library was completed at a cost of $2.4 million. On May 25, 1980, a ceremony was held naming the library for Irvine Sullivan Ingram.

1982. To complement the football team, a marching band was organized.

1982. Football team, coached by Bobby Pate, won the national championship in Division III.

1983, October. “A Day for West Georgia” local fund-raising campaign was originated by then Director of Development Phyllis Fountain. $28,000 was raised that first effort.

1983-1984. School of Business was accredited by the American Assembly of Collegiate Schools of Business.
1983-1984. West Georgia College celebrated its 50th anniversary, then calculated from the time the A&M School was converted to a junior college. Novelist Pat Conroy was the speaker at a formal convocation held on 9-24-83 and four of the original-West Georgia College faculty were in attendance: Dr. J.C. Bonner, Dr. James E. Boyd, Dr. Tom Hart, and Miss Annie Belle Weaver. In Spring of 1984, in honor of this anniversary, a new alma mater was adopted. Felton Dunn ('84) won a contest for the words, with music composed by Bruce Borton, Assistant Professor of Music.

1984. Multicultural Achievement Program (originally called the Black Achievement Program) was begun.

1985. Mel Steely, Professor of History, selected to coordinate the videotaping of Georgia’s political leaders for the Georgia Political Heritage Project.


1989, April 11. Performing Arts Center opened.


1991. Women’s Tennis won Gulf South Conference championship. Coach Don Medeiros named as Coach of the Year.


1992-1993. Bruce Lyon, Vice President for Student Services, became Acting President during the time of President Townsend’s medical leave and following his death.

1994. Beheruz N. Sethna, with Ph.D. from Columbia University and BA degree with honors from the Indian Institute of Technology in Bombay, became first person from an ethnic minority to head a predominately white or racially-integrated institution in Georgia when he was named President of West Georgia College.

1995 A former Fulbright scholar, Sethna successfully approached the Faculty Senate to establish an “Advanced Academy” on campus to provide opportunities for outstanding juniors and seniors in high school to take regular college courses and receive both high school and college credit.

1996, Spring. First Honorary Doctorate awarded to Roy Richards, Jr., CEO of Southwire Company.

1996, June 12. West Georgia College became the State University of West Georgia and the three undergraduate units became Colleges rather than Schools.

1997, April. A new logo symbolizing the torch of knowledge was adopted by replace the McIntosh stone logo.

1997, Spring. Second honorary doctorate bestowed upon Julian Stanley, renowned educational psychologist and 1936 alumnus of West Georgia Junior College.

1997, July. Roy Richards, Jr. presents a $1.5 million gift to the State University of West Georgia in the form of an endowment honoring his late father, Roy Richards, Sr., Southwire founder and A&M School graduate, and his mother, Alice Huffard Richards. The College of Business is renamed the Richards College of Business.

1997, Fall. Freshman Center (now the Excel Center) established to help students excel in their initial college work and beyond.

1997, October. The Richards College of Business holds the first Economic Forecast Breakfast.

1999, June 9. The Honors College became an official part of the State University of West Georgia, and held the distinction of being the only such college in the state of Georgia.


2000, October 17. The State University of West Georgia obtained authorization from the Chancellor’s office of the University System of Georgia to officially recognize its founding date as 1906 rather than 1933.

2001. Building of the Technology-enhanced Learning Center (TLC) was completed.

2001, February. The Great Decisions program, focusing on the study of international questions and foreign policy, sponsored by the Carrollton/Carroll County League of Women Voters, was instituted in 1994. Dr. Tom Carrere, a Professor in the Department of Educational Leadership at West Georgia, was its founding moderator. In 2001, the program was re-named the Floyd Hoskins Great Decisions Series in honor of Professor Emeritus Floyd Hoskins, faculty member in the History Department at West Georgia, who served as the moderator for this series from 1995 until his death in 2000.

2002, October. Construction was begun on the new Adamson Hall.

2003, November 5. The 2003 Jimmy and Rosalynn Carter Partnership Award for Campus-Community Collaboration was awarded to The Latino Initiative, a project begun in December, 2000 by Dr. Elena Mustakova-Possardt, UWG Assistant Professor of Psychology. This project was designed to produce measurable improvements in the lives of low-income Latino, African-American and white residents of Brookwood Apartments in Carrollton while enhancing learning for higher education participants. The project also expanded to offer a medical clinic headed by Villa Rica physician Dr. Eugenio Gonzales, who volunteered his time three days per week in Brookwood.

2004, April. Adamson Hall construction was completed and the hall was occupied by the Richards College of Business and the Department of Continuing Education.

2004. The Decision Sciences Institute named a Marketing course designed by Professor and President Beheruz Sethna as one of the nation’s best.

2004. University awarded its first three doctoral degrees to Ann Baker (Spring) and Simon Lambert and Danette Smith (Winter).

2005, January 12. By a vote of the Board of Regents, State University of West Georgia became University of West Georgia.

2005. For the fifth time in the last seven years, more students from the Honors College were accepted to present research at the annual meeting of the National College Honors Council than from any other college or university in the country.

2005, April. The Association of Retired Faculty and Staff (ARFS) was established with the support of the University of West Georgia Foundation. Glenn and Debbie Novak served as founding co-coordinators. The Association organized a summertime reception for faculty and staff retirees, and compiled the first commemorative booklet to honor these individuals.

2005, September. UWG opened Roberts Hall, a residence hall that had been closed following the construction of a new housing complex, to house more than 200 people displaced by Hurricane Katrina. Dr. Melanie McClellan, Vice President for Student Services, coordinated the efforts of hundreds of volunteers who provided services such as counseling, job placement, school enrollment, homework help, childcare, medical care, etc. for a month for these displaced persons ranging in age from two months to mid-eighties.
2006. For the fifth time in the last five years, the university co-ed cheerleaders won the UCA College Cheerleading National Championship in Division II.

2006, January. UWG adopted “Wolves” as the new mascot.

2006. Dr. Ron Best was named as Richards College of Business Research Scholar, the first in the Richards College of Business.

2006, May. The Georgia General Assembly allocated $30.4 million for the construction of the health and Wellness Center and $4.9 million for the construction of an addition to the Callaway Building.

2006, June. Board of Regents approve Doctor of Psychology program at the University of West Georgia.


2006, August 11. The Campus Center opened.

2006, August 18. Thirteen trees were planted on front campus in honor of original thirteen states that gave trees to be planted on the campus of the A&M School in 1919.

2006, August 18. Centennial Gala held in Campus Center Ballroom.

2006, September. A Day Faculty/Staff donations top $100,000. for the first time.

2006, October 7. Centennial Community Cookout held on front campus lawn.

2006, October 19. Descendants of 1908 Grand Jury were recognized at annual A-Day for West Georgia victory celebration. The Thirteen Oaks Society donor board was unveiled at the Campus Center.

2006, November 11. UWG Wolf officially named “Wolfe.”

2006, November 18. Centennial Faculty/Staff Hoedown held.

2007, January. Cheerleaders (Coed and All Girls Teams) capture National Championships in Orlando, FL.

2007, January. A Campaign was launched to build a stadium on the campus of the University of West Georgia.

2007, January 13. The Chamber of Commerce presented a commissioned Centennial sculpture, “Centennial Tribute,” to the University, created by local artists Helen Helwig and Machiko Ichihara, as a permanent reminder of the exceptional relationship forged over the past 100 years between the community and the university. It was mounted on a concrete pedestal near the new Campus Center.

2007, February 19. First Presidents Day Scholarship Program.

2007, March 30- April 1. Psychology Department held first Alumni Conference as part of celebration of the 40th anniversary of the founding of the department’s humanistic orientation.

2007, March 16. In response to a policy shift at the level of the Board of Regents, faculty advocacy for change, and in keeping with the commitment to establish new traditions in the Centennial year, Interim President Thomas (Tim) Hynes ended a 38-year period in which the President of the institution presided over Faculty Senate meetings. A member of the faculty and the Senate (Randy Hendricks) was elected Chair Pro-Tem by the Faculty Senate, with authorization to preside over subsequent meetings of the Senate.
2007, April 11. The Nursing Department celebrated the 30th anniversary of its AA program in Nursing.

2007, April 13. The “black box” theatre in the Townsend Center for the Performing Arts was re-named the Richard L. Dangle Theatre in honor of former Dean of Arts & Sciences Richard L. Dangle, who served as the Chairman of the Building Committee for the Townsend Center in the 1980s.


2007, April 19. Students who attended Oak Mountain’s one-room schoolhouse and were pictured in a 1946 Norman Rockwell photo were recognized by the College of Education.

2007, April 20. The Murphy Center for Public Service hosted a Centennial Lecture in the Ingram Library. Speakers were Georgia Supreme Court Justice P. Harris Hines and former Governor of Georgia, Roy Barnes.

2007, April 20. The English Department held a Centennial Poetry Gala at Oak Lawn Farm during National Poetry Month.

2007, April 21. A Foster’s Store reunion was held for UWG alumni to commemorate the memorable decade (1965-1975) in which a former market was converted to student housing and served as a popular student hangout.

2007, April 26. The Goo Goo Dolls performed live in concert at UWG “Centennial Field.”

2007, May. The Richards College of Business announced the MBA program will be offered at the Newnan Center campus beginning Fall ’07.

2007, May. Roberts Hall demolished.

2007, August 17. Centennial Time Capsule Ceremony held at Ingram Library and Centennial Quilt was presented by the West Georgia Quilters Guild.

History above initially summarized by Anne C. Richards, May, 2005, based on [and sometimes copied verbatim from] sources listed below; updated by Anne C. Richards and Lisa Ledbetter (Assistant Vice President of Communications and Marketing) in July, 2007.


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</tr>
<tr>
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<td>-----------</td>
</tr>
<tr>
<td>Centennial T-Shirts</td>
<td>$5,831.50</td>
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</tr>
<tr>
<td>Centennial Community Cookout</td>
<td>$4,020.26</td>
<td>$4,020.26</td>
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</tr>
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<td>Distinguished Lecturer-Thomas B. Murphy Ctr</td>
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<td>$ 700.00</td>
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</tr>
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<td>$4,841.27</td>
<td>($841.27)</td>
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<td>Historic Photo Banners</td>
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<td>Lincoln Perry/Ann Beattie Exhibition</td>
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<td>($862.48)</td>
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<td>Centennial DECO</td>
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<td>Centennial Quilt</td>
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<td>Centennial Celebration Mural</td>
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<tr>
<td>Variety Show 2007</td>
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$39,276.76 $38,812.60 $ 464.16
Addendum IV
Course or Program Addition, Deletion or Modification Request

Department: Mathematics  College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Master of Science</th>
<th>Credit</th>
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</tr>
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<tr>
<td>[ ] Course [ ] Program</td>
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<td></td>
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</tr>
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<td>[ ] Delete</td>
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<td>[ ] Yearly</td>
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</tr>
<tr>
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<td>[ ] Other</td>
<td></td>
</tr>
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<td></td>
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</tr>
<tr>
<td>[ ] Title</td>
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<td>[ ] Other</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- [ ] Library resources are adequate
- [ ] Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Hours:</th>
<th>Lecture/Lab/Total</th>
</tr>
</thead>
</table>

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s)

Present or Projected Enrollment: (Students per year)

Effective Date*: / Term/Year

Grading System: [ ] Letter Grade [ ] Pass/Fail [ ] Other

Approval

Department Chair

Dean of College

Chair of TEAC (if teacher prep. program)

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee

Chair, Committee on Graduate Studies

Vice President for Academic Affairs

Revised 1/09/02
New Program Proposal

Master of Science in Mathematics with Options in Teaching and Applied Mathematics

1. Program Description and Objectives
   A. Teaching Option. In 2004, the Board of Regents of the University System of Georgia, in preparing its Statewide Assessment Plan, stated that the University System of Georgia is the largest single source of teachers and school leaders from kindergarten through high school in Georgia. That same year, the Graduate School at the University of West Georgia stated that part of its mission is to provide members of the teaching profession with an opportunity to enhance their competencies and knowledge in areas associated with the profession. Additionally, the institution has named innovations in professional preparation, including teacher preparation, as one of its five visionary goals. At the national level, the "No Child Left Behind" Act contains provisions for assuring teacher quality and holding states and districts accountable for teacher quality. In response to national, state, and institutional priorities, the Department of Mathematics at the University of West Georgia has designed a Master of Science in Mathematics with a teaching option. The proposed program has been designed for teachers and aspiring teachers with an undergraduate degree in mathematics or mathematics education who wish to obtain an advanced degree which will make them more qualified and marketable as mathematics teachers at the high school and junior college level. The major elements of the program are (i) mathematics education courses that are specifically designed to address current needs of teachers of secondary mathematics in Georgia and (ii) advanced mathematics courses which promote a greater depth of understanding of concepts relevant to in-class teaching. The strong combination of these elements will make the program unique in the University System of Georgia. Students who complete this degree will receive an inscription of Master of Science in Mathematics on their diploma.
   B. Applied Option. Mathematics has always played an important roll in understanding and predicting real-world phenomena, and that roll has increased rapidly as many areas of technology and science have advanced in recent years. There has also been an increase in new areas of mathematics used to model these phenomena. A wealth of applications can be found in areas such as economics, biology, computation, social and management sciences, and engineering. The Department of Mathematics at the University of West Georgia has a strong contingent of faculty in applied areas and has played a prominent role in preparing undergraduates to use mathematics in applied fields, creating an applied concentration for the B.S. degree in Mathematics and fielding teams for the Mathematical Contest in Modeling (with impressive results) for the last ten years. The department now intends to do the same for graduate students by proposing a Master of Science in Mathematics with an applied option. The proposed program is designed to expose students to a broad range of mathematical subjects that are important in applied fields. The program includes (i) a set of core courses fundamental to the study of applied mathematics, (ii) a broad range of elective courses in several applied areas, (iii) a research project class. These elements and the strong qualifications of the applied faculty in the department will make the program unique in the University System of Georgia.
Students who complete this degree will receive an inscription of Master of Science in Mathematics on their diploma.

2. **Justification and Need for the Program**

a. **Societal Need for the Program**

   **Teaching Option.**

   (i) In January 2005, the Board of Regents launched Phase Three of its ongoing teacher-preparation initiative to reduce teacher attrition rates and produce a better-qualified, more diverse teacher pool. The "Double the Number, Double the Diversity" initiative lists among its strategies 1) raising the University System's teacher production targets, 2) placing special emphasis on the recruitment of teachers in science and mathematics, 3) expanding the number of pathways by which those interested in second careers can become teachers, 4) approving more teacher-education programs.

   (ii) The Georgia Department of Education is in the process of revising curriculum standards for the state of Georgia. The new "Georgia Performance Standards" curriculum raises content standards and puts new demands on teachers to meet those standards. The proposed program has been designed to address these new standards. Two of the proposed courses - Strategies for Teaching Mathematics and Assessment and Classroom Management in Mathematics Education - make use of many of the "hands-on" materials specifically supported and recommended by the Georgia Department of Education for teaching the new curriculum standards.

   (iii) In Georgia, the Professional Standards Commission has named certain discipline areas as critical shortage areas (defined as those subjects with a 5% or higher vacancy rate). Mathematics is one of those areas.

   (iv) The standards for knowledge and depth of understanding of mathematical concepts required of teachers at the Secondary Mathematics level are laid out in the NCATE/NCTM Program Standards for Initial Preparation of Mathematics Teachers (See Appendix A). The proposed program will create teachers better prepared to meet these standards.

   **Applied Option.** This program has the potential to lead to better employment opportunities for graduates. People with specific training in applied mathematics are employable in a wide variety of jobs in industry, business, and government. The demand for those with advanced mathematical training is increasing because of emerging fields such as data mining, neuroscience, digital imaging, genomics, and other fields. According to the website the Department of Labor, Bureau of Labor Statistics, “Private industry jobs require at least a master’s degree in mathematics or in a related field. Bachelor’s degree holders in mathematics usually are not qualified for most jobs, and many seek advanced degrees in mathematics or a related discipline.” In addition, “the most successful jobseekers will be able to apply mathematical theory to real-world problems and will possess good communication, teamwork, and computer skills. Advancements in
technology usually lead to expanding applications of mathematics, and more workers with knowledge of mathematics will be required in the future.”

b. Student Demand

An announcement for a possible M.S. program in Mathematics was sent to UWG mathematics majors and math education majors, and to department chairs at nearby colleges, asking students to let us know of their interest in the proposed M.S. program. Thus far, twenty-eight students have replied that they are interested, twenty of whom indicated they are very interested. Additionally, six other current or former students have independently contacted the department with a desire to pursue a Masters level degree in mathematics.

c. Desirability of Program

The fundamental feature which we believe makes the Teaching option of the program highly desirable is the combination of a strong education component uniquely designed to address the needs of Georgia teachers and a strong mathematics component designed to deepen understanding of mathematical concepts. A major strength of the Applied Mathematics option is that it is designed to provide students with advanced training in marketable areas of applied mathematics and with experience in using research to solve real-world problems. We also believe that the qualifications of our faculty in applied mathematics make us ideally suited to run an excellent program with these emphases. (See Appendix C for faculty vitae.)

d. Advisory Reports. (N/A)

e. Other State Institutions with Similar Programs
   (i) Georgia College and State University, Milledgeville, Master of Arts in Teaching (see http://catalog.gcsu.edu/4DCGI/Catalog/Graduate/SubHeadingDetail/408)
   (iii) Emory University, Atlanta, GA, Master of Science in Mathematics (see www.mathcs.emory.edu/Graduate/Prospective)

3. Procedures Used to Develop the Program

Teaching Option. The Mathematics Department at the University of West Georgia has a long history of preparing students to teach in Georgia schools and, in recent years, has built a faculty of accomplished mathematicians. With teaching standards and content knowledge of educators in Georgia schools coming under greater scrutiny, the time seems right for the Department to combine its strengths in the areas of Mathematics Education and mathematics content to create a program of excellence for Georgia’s present and future teachers. National and state standards for teachers were studied in an effort to create a program ideally suited to meet them. Similar programs at other
institutions were researched in an effort to determine how the proposed program might both emulate them and improve on them.

In developing the proposed program, the department also consulted with the College of Education in an effort to better understand the needs of future teachers. Department faculty with specialties in Mathematics Education had extensive discussions with Dr. Kent Layton, the Dean of the College of Education, and other faculty of the College of Education, on the possible structure of the program and to determine how the program might best serve the needs of students seeking careers in teaching. Members of the College of Education helped identify students of the College of Education who might have interest in the program and distributed surveys to them.

Applied Option. The department set up a committee consisting of faculty members with successful experience in developing MS programs, in research and in educating graduate students in Applied Math, and discussed with other faculty members on a possible program. A survey carried out by the committee shows a high level of interest for such a MS program with concentration in Applied Math. The committee further researched the international and national need and demand for applied mathematicians using the surveys of professional organizations such as SIAM (Society for Industrial and Applied Mathematics) (URL: http://www.siam.org), AMS (American Math Society) (URL: http://www.ams.org).

The department also carefully studied the MS programs offered by Georgia State University, Georgia Institute of Technology, Georgia Southern University as well as out-of-state institutions such as the University of Texas at San Antonio, University of Alabama at Huntsville, Towson University, and the University of North Carolina at Charlotte, in an effort to determine how the proposed program might both emulate them and improve on them. Indeed, in order to prepare students for further graduate studies and/or emerging career opportunities in applied mathematics, the department came up with a proposal that provides students with a broader knowledge in applied mathematics (in comparison with the programs offered in Georgia Tech and Georgia State). It also provides students with opportunities to do research projects in applied mathematics with uniquely qualified, internationally renowned scholars.

4. **Curriculum**

Students entering the program will have completed the calculus sequence together with 12 hours of mathematics at the advanced undergraduate level. (See 8 – Student Qualifications).

Degree requirements for both the teaching and applied options of the proposed program are included in Appendix E. The student choosing the teaching option will be required to take 9 hours of mathematics education courses and 27 hours of graduate level mathematics courses. The student choosing the applied option will be required to take 30 hours of graduate level mathematics courses, a 3-hour elective which may be interdisciplinary, and a 3-hour research project class.

a. Course syllabi are included in Appendix B.

b. Course descriptions are included in Appendix B.
c. Course prerequisites are included in Appendix B.

d. No courses in the program are cross listed as undergraduate courses.

e. Paperwork for course additions is included in the proposal.

f. See Appendix A for NCATE/NCTM standards. The teaching option is designed to be consistent with these standards.

g. Internships and field experiences: N/A.

h. The design of the teaching option of the program is based on the NCATE/NCTM Standards, which are included in Appendix A. Standards addressed by the program are followed by a list of courses which are designed help students meet those standards.

i. Student Outcomes

Teaching Option. Upon completion of this program, the student will be able to:
1. Analyze and utilize alternate definitions, language, and approaches to mathematical ideas.
2. Give extensions and generalizations of familiar concepts from secondary level mathematics.
3. Analyze common problems of secondary mathematics from a deeper mathematical level.
4. Apply and adapt a variety of appropriate strategies to solve problems.
5. Develop and evaluate mathematical arguments and proofs.
6. Communicate their mathematical thinking coherently.
7. Use representations to model and interpret physical, social, and mathematical phenomena.
8. Demonstrate alternate ways of approaching problems, including ways with and without technology.
9. Design lessons and unit plans incorporating a variety of instructional models.
10. Design appropriate assessment and evaluation instruments.
11. Use assessment information to inform instructional practices.
12. Identify and incorporate relevant research into their teaching.
13. Apply the fundamental concepts of linear algebra to analyze matrices and systems of linear equations.
14. Demonstrate knowledge of core concepts and principles of Euclidean and non-Euclidean geometries.

Applied Option. Upon completion of this program, the student will be able to:
1. Use mathematical models to solve a variety of applied problems.
2. Develop and evaluate mathematical arguments and proofs.
3. Coherently communicate mathematical arguments and research results both orally and in writing.
4. Demonstrate an understanding of the fundamental concepts of mathematical analysis.
5. Apply the fundamental concepts of linear algebra to analyze matrices and systems of linear equations.

6. Be able to identify and apply a variety of methods for computing numerical solutions to mathematical problems.

7. Demonstrate an understanding of concepts and practices related to data analysis, statistics, and probability.


9. Demonstrate an understanding of concepts, applications, and solution methods of dynamical systems.

5. **Inventory of Faculty Involved**

   Appendix C contains the vitae of all faculty who will participate in this program. The current workload for research-active, tenured and tenure-track faculty includes 18 hours of teaching per academic year in addition to research and service expectations. Non-tenure-track faculty teach 27 hours per year, have very limited service duties, and no research expectations. The program will require three graduate assistants, in which case the proposed program will not have an impact on faculty workload.

6. **Outstanding Programs of This Nature at Other Institutions**

   **Teaching Option.** There are many institutions offering an M. Ed. or a Master of Arts in Teaching, but most of those with a mathematics option are predominantly composed of education courses and are based in an education department, e.g., Georgia College and State University. We mention here two programs which are similar in spirit to our proposed program in the sense that advanced mathematics coursework represents a significant component of the program.

   1. The Department of Mathematical Sciences at the University of Texas at El Paso offers a Master of Arts in Teaching Mathematics. The program has a thesis option (24 hours of coursework) and a non-thesis option (36 hours of coursework). The Director of Graduate Studies is Piotr Wojciechowski (915) 747-5761. The strength of this program is the depth of mathematical content in the program. Our program seeks to emulate this feature but will include a stronger education component.

   2. The University of Georgia has a Department of Mathematics Education which offers four advanced degrees in mathematics education: a Master of Arts, Master of Education, Specialist in Education, and a Doctor of Philosophy. The program coordinator is James Wilson (706) 542-4194. The strength of this program is the breadth of options available to the student seeking an advanced degree in teaching mathematics. The Master of Arts program is similar to our proposed program in that it requires 18 hours of mathematics courses at the 6000 level in addition to 9 hours of mathematics education courses. The proposed program differs from this program, however, in a number of ways:

      a. The proposed program is offered by the Mathematics Department rather than an education department, indicating the investment of the mathematics faculty in the success and effectiveness of the program.
b. The mathematics education component of the program is specifically designed to meet the changing requirements of the Georgia Department of Education (See Section 2(a)(ii)).

c. The proposed assessment course (Assessment and Classroom Management in Mathematics Education) specifically addresses the issue of classroom management which is critical to successfully teaching mathematics in public schools.

d. The proposed education research course (Research in Mathematics Education) is very specific in addressing issues relevant to classroom teaching, as opposed to a seminar course which is broadly defined.

**Applied Option.**

1. University of Texas at San Antonio, San Antonio, TX offers a Master of Science in Applied Mathematics – Industrial Mathematics.


Graduate catalog is at:

[http://www.utsa.edu/gcat/chapter7/cos/matdept.cfm](http://www.utsa.edu/gcat/chapter7/cos/matdept.cfm)

Contact information:

- The University of Texas at San Antonio
- College of Sciences
- One UTSA Circle
- San Antonio, Texas 78249-0664
- Phone: 210-458-5739
- Fax: 210-458-4439
- Email: Wanda.Crotty@utsa.edu

2. Towson University, Towson, MD offers a Master of Science in Applied and Industrial Mathematics.

[http://wwwnew.towson.edu/math/graduate_programs/grad_programs.asp](http://wwwnew.towson.edu/math/graduate_programs/grad_programs.asp)

Graduate catalog is at:

[http://grad.towson.edu/program/master/apim-ms](http://grad.towson.edu/program/master/apim-ms)

Contact information:

- Department of Mathematics
- 7800 York Road, Room 316
- Towson, MD 21252-0001
- Phone: 410-704-2978
- Fax: 410-704-4149
- Email: maminzadeh@towson.edu

3. University of Alabama at Huntsville, Huntsville, AL. offers a Master of Science in Applied Mathematics.

[http://www.math.uah.edu/graduate.html](http://www.math.uah.edu/graduate.html)

Graduate catalog is at:

[http://www.uah.edu/main/catalogs/Cat05_07/gCat05_07.pdf](http://www.uah.edu/main/catalogs/Cat05_07/gCat05_07.pdf)

Contact information:

- Graduate Program Director
- Department of Mathematical Sciences
- University of Alabama in Huntsville
- Huntsville, Alabama 35899, USA
- Phone: 256- 824-6470
- Fax: 256- 824-6173
- Email: mathchain@math.uah.edu
Features that make these programs stand out: These programs offer M.S. degrees in Applied Industrial Math or Applied Math with interdisciplinary training and give the student research experience in at least one field of application. Our program will emulate these features by offering elective interdisciplinary courses and requiring a research project in at least one area of application. These courses and research projects will be closely related to the research activities of the Math faculty in joint projects with other faculty members in the college.

7. **Inventory of Pertinent Library Resources**

The existing mathematics, mathematics educations, and general education collections provide a strong base for this program. Among Ingram Library's holdings and subscriptions are

- 111 periodicals on education and teaching, 8 of which are specific to mathematics,
- 16 mathematics periodicals
- hundreds of books on advanced topics in mathematics, especially applied mathematics,
- roughly 450 books on mathematics education,
- a subscription to MathSciNet, a web-based version of Mathematical Reviews, a publication of the AMS. This site provides access to reviews of about two million articles from thousands of journals, including over 600,000 new items added in 2007.
- An excellent interlibrary loan program which allows members of this institution to rapidly obtain articles and borrow books from other system institutions.

Ingram Library also has an extensive collection of databases with many full text education and mathematics periodicals. These databases include:

- **Wilson Education Abstracts at ProQuest**
  H.W. Wilson's Education Abstracts database with full text and images for many publications. Areas covered include adult education, homeschooling, language and linguistics, special education, and more.

- **Education Complete at ProQuest**
  Find comprehensive education periodical coverage including primary, secondary, and university-level topics. Also includes the indexing and abstracts from H.W. Wilson's highly regarded Education Abstracts. Combination of ProQuest Education Journals and Wilson Education Abstracts.

- **ERIC at EBSCOhost**
  Educational Resources Information Center. Index and abstracts of articles, books, and documents covering education research and practice.

- **ProQuest Education Journals**
Offering complete information on hundreds of educational topics, this database covers almost 400 leading journals in the field. Covers not only the literature on primary, secondary, and higher education but also special education, home schooling, adult education, and hundreds of related topics.

**Georgia Government Publications**
Public documents of departments or agencies within the state government.

**Professional Development Collection - Education at EBSCOhost**
Designed for professional educators, provides a specialized collection of over 500 full text journals, including more than 300 peer-reviewed titles. This is the most comprehensive and most valuable collection of full text education journals in the world. Includes, indexing and abstracts for more than 800 journals.

8. **Student Qualifications**
The minimum qualifications for admission into the program will be (i) a Bachelor's Degree from an accredited institution, (ii) a cumulative GPA of at least 2.7 on all work taken at all institutions, (iii) a combined verbal and quantitative GRE score of 1030, with no score less than 400, (iv) completion of the calculus sequence together with 12 hours of mathematics at the advanced undergraduate level (3000/4000 level or the equivalent) with a GPA of 3.0 or higher in these courses, and (v) be recommended for admission to the Graduate School.

9. **Facilities**
Implementation of this proposed program will require no purpose-built facilities.

10. **Administration**
This program will be administered within existing structures. All advising and admissions decisions will be made by the Department of Mathematics. Initial applications will be submitted to the Graduate School. Applications will be approved or rejected by a committee within the Department. One faculty member will serve as Director of Graduate studies, and will have a 3-credit reduction in his or her annual teaching assignment to allow for this administrative work.

With regard to curricular issues, all course and program changes will follow established procedures. For program changes, the proposals must go through the Executive Committee of the College of Arts and Sciences, the Committee on Graduate Studies, and the Faculty Senate.

11. **Assessment**
Assessment of the proposed program and its candidates will be both qualitative and quantitative in nature and take place at entry, midpoint, and exit points.

1. **Entry Assessment**
The prerequisites for the program (see Section 4 - Curriculum) provide means for assessing student competencies upon entrance into the program.

2. **Ongoing Assessment**
• Students will meet with their advisors regularly to review their progress towards earning the degree.
• Research projects and presentations from relevant courses will also be used to assess the student’s ability to apply and communicate knowledge obtained in their courses.

3. Exit Assessment
   a. An exit interview will be used to determine students’ plans after graduation and assess student impressions of how well they were served by the program.
   b. During their final semester in the program, students will take a written comprehensive examination made up of questions related to the program courses that they have taken, submitted by the course instructors.

4. Post-completion Assessment
   a. The College of Education already has in place an online survey, the Graduate Student Survey for Completers (GSSC) that is used to assess those candidates who have completed their programs and are in the schools. This is currently being revised, and the Department will develop a similar one specific to our graduates.
   b. Employer surveys will also be used to assess graduates of the program.

   Qualitative and quantitative data gathered through each of these methods will be used to strengthen the program’s curriculum, prerequisites for admission, and requirements for completion.

12. Accreditation
N/A

13. Affirmative Action Impact
Although it is not included in the current proposal, it is hoped that the success of the program will enable funds currently used for undergraduate scholarships to be tapped to be used for need-based scholarships to attract underrepresented groups.

   Additionally, the Graduate School of the University of West Georgia has devised strategies to specifically focus on the recruitment of minority students. These include recruitment at historically Black institutions such as Clark Atlanta University and Fort Valley State University. Once our degree program is approved, we will be able to take advantage of the effective recruitment plans used by the Graduate School.

   The University of West Georgia is an Affirmative Action/Equal Opportunity Employer.

14. Degree Inscription
Students who complete this program will receive a diploma with the inscription “Master of Science in Mathematics”.

15. Fiscal and Enrollment Impact, Estimated Budget
Budget information is included in Appendix D
Selected Bibliography

Appendix A
Programs for Initial Preparation of Mathematics Teachers

Standards for Secondary Mathematics Teachers

Process Standards (Standards 1-7)

The process standards are based on the belief that mathematics must be approached as a unified whole. Its concepts, procedures, and intellectual processes are so interrelated that, in a significant sense, its "whole is greater than the sum of the parts." This approach would best be addressed by involvement of the mathematics content, mathematics education, education, and field experience faculty working together in developing the candidates' experiences.

Likewise, the response to the disposition standard will require total faculty input. This standard addresses the candidates' nature and temperament relative to being a mathematician, an instructor, a facilitator of learning, a planner of lessons, a member of a professional community, and a communicator with learners and their families.

Standard 1: Knowledge of Mathematical Problem Solving
Candidates know, understand, and apply the process of mathematical problem solving.

Indicators
1.1 Apply and adapt a variety of appropriate strategies to solve problems.
1.2 Solve problems that arise in mathematics and those involving mathematics in other contexts.
1.3 Build new mathematical knowledge through problem solving.
1.4 Monitor and reflect on the process of mathematical problem solving.

Program Courses: Advanced Perspectives on Secondary Mathematics.

Standard 2: Knowledge of Reasoning and Proof
Candidates reason, construct, and evaluate mathematical arguments and develop an appreciation for mathematical rigor and inquiry.

Indicators
2.1 Recognize reasoning and proof as fundamental aspects of mathematics.
2.2 Make and investigate mathematical conjectures.
2.3 Develop and evaluate mathematical arguments and proofs.
2.4 Select and use various types of reasoning and methods of proof.
**Program Courses:** Geometry, Mathematical Analysis I and II, Advanced Modern Algebra I and II, Applied Linear Algebra, Advanced Perspectives on Secondary Mathematics.

**Standard 3: Knowledge of Mathematical Communication**
Candidates communicate their mathematical thinking orally and in writing to peers, faculty, and others.

**Indicators**
3.1 Communicate their mathematical thinking coherently and clearly to peers, faculty, and others.
3.2 Use the language of mathematics to express ideas precisely.
3.3 Organize mathematical thinking through communication.
3.4 Analyze and evaluate the mathematical thinking and strategies of others.

**Program Courses:** All courses.

**Standard 4: Knowledge of Mathematical Connections**
Candidates recognize, use, and make connections between and among mathematical ideas and in contexts outside mathematics to build mathematical understanding.

**Indicators**
4.1 Recognize and use connections among mathematical ideas.
4.2 Recognize and apply mathematics in contexts outside of mathematics.
4.3 Demonstrate how mathematical ideas interconnect and build on one another to produce a coherent whole.

**Program Courses:** Advanced Perspectives on Secondary Mathematics.

**Standard 5: Knowledge of Mathematical Representation**
Candidates use varied representations of mathematical ideas to support and deepen students’ mathematical understanding.

**Indicators**
5.1 Use representations to model and interpret physical, social, and mathematical phenomena.
5.2 Create and use representations to organize, record, and communicate mathematical ideas.
5.3 Select, apply, and translate among mathematical representations to solve problems.

**Program Courses:** Advanced Perspectives on Secondary Mathematics, Applied Probability, and Statistical Methods.
Standard 6:  Knowledge of Technology  
Candidates embrace technology as an essential tool for teaching and learning mathematics.

Indicator  
6.1 Use knowledge of mathematics to select and use appropriate technological tools, such as but not limited to, spreadsheets, dynamic graphing tools, computer algebra systems, dynamic statistical packages, graphing calculators, data-collection devices, and presentation software.

Program Courses: Strategies for Teaching Mathematics.

Standard 7:  Dispositions  
Candidates support a positive disposition toward mathematical processes and mathematical learning.

Indicators  
7.1 Attention to equity  
7.2 Use of stimulating curricula  
7.3 Effective teaching  
7.4 Commitment to learning with understanding  
7.5 Use of various assessments  
Use of various teaching tools including technology

Program Courses: Strategies for Teaching Mathematics, Assessment and Classroom Management in Mathematics Education.
Pedagogy (Standard 8)

In addition to knowing students as learners, mathematics teacher candidates should develop knowledge of and ability to use and evaluate instructional strategies and classroom organizational models, ways to represent mathematical concepts and procedures, instructional materials and resources, ways to promote discourse, and means of assessing student understanding. This section on pedagogy is to address this knowledge and skill.

Standard 8: Knowledge of Mathematics Pedagogy
Candidates possess a deep understanding of how students learn mathematics and of the pedagogical knowledge specific to mathematics teaching and learning.

Indicators
8.1 Selects, uses, and determines suitability of the wide variety of available mathematics curricula and teaching materials for all students including those with special needs such as the gifted, challenged and speakers of other languages.
8.2 Selects and uses appropriate concrete materials for learning mathematics.
8.3 Uses multiple strategies, including listening to and understanding the ways students think about mathematics, to assess students' mathematical knowledge.
8.4 Plans lessons, units and courses that address appropriate learning goals, including those that address local, state, and national mathematics standards and legislative mandates.
8.5 Participates in professional mathematics organizations and uses their print and on-line resources.
8.6 Demonstrates knowledge of research results in the teaching and learning of mathematics.
8.7 Uses knowledge of different types of instructional strategies in planning mathematics lessons.
8.8 Demonstrates the ability to lead classes in mathematical problem solving and in developing in-depth conceptual understanding, and to help students develop and test generalizations.
8.9 Develop lessons that use technology's potential for building understanding of mathematical concepts and developing important mathematical ideas.

Content (Standards 9-15)

Candidates’ comfort with, and confidence in, their knowledge of mathematics affects both what they teach and how they teach it. Knowing mathematics includes understanding specific concepts and procedures as well as the process of doing mathematics. That knowledge is the subject of the following standards.

Standard 9: Knowledge of Number and Operation
Candidates demonstrate computational proficiency, including a conceptual understanding of numbers, ways of representing number, relationships among number and number systems, and meanings of operations.

Indicators
9.1 Analyze and explain the mathematics that underlies the procedures used for operations involving integers, rational, real, and complex numbers.
9.2 Use properties involving number and operations, mental computation, and computational estimation.
9.3 Provide equivalent representations of fractions, decimals, and percents.
9.4 Create, solve, and apply proportions.
9.5 Apply the fundamental ideas of number theory.
9.6 Make sense of large and small numbers and use scientific notation.
9.7 Compare and contrast properties of numbers and number systems.
9.8 Represent, use, and apply complex numbers.
9.9 Recognize matrices and vectors as systems that have some of the properties of the real number system.
9.10 Demonstrate knowledge of the historical development of number and number systems including contributions from diverse cultures.


Standard 10: Knowledge of Different Perspectives on Algebra
Candidates emphasize relationships among quantities including functions, ways of representing mathematical relationships, and the analysis of change.

Indicators
10.1 Analyze patterns, relations, and functions of one and two variables.
10.2 Apply fundamental ideas of linear algebra.
10.3 Apply the major concepts of abstract algebra to justify algebraic operations and formally analyze algebraic structures.
10.4 Use mathematical models to represent and understand quantitative relationships.
10.5 Use technological tools to explore algebraic ideas and representations of information and in solving problems.
10.6 Demonstrate knowledge of the historical development of algebra including contributions from diverse cultures.

Standard 11: Knowledge of Geometries
Candidates use spatial visualization and geometric modeling to explore and analyze geometric shapes, structures, and their properties.

Indicators
11.1 Demonstrate knowledge of core concepts and principles of Euclidean and non-Euclidean geometries in two and three dimensions from both formal and informal perspectives.
11.2 Exhibit knowledge of the role of axiomatic systems and proofs in geometry.
11.3 Analyze characteristics and relationships of geometric shapes and structures.
11.4 Build and manipulate representations of two- and three-dimensional objects and visualize objects from different perspectives.
11.5 Specify locations and describe spatial relationships using coordinate geometry, vectors, and other representational systems.
11.6 Apply transformations and use symmetry, similarity, and congruence to analyze mathematical situations.
11.7 Use concrete models, drawings, and dynamic geometric software to explore geometric ideas and their applications in real-world contexts.
11.8 Demonstrate knowledge of the historical development of Euclidean and non-Euclidean geometries including contributions from diverse cultures.

Program Courses: Geometry.

Standard 12: Knowledge of Calculus
Candidates demonstrate a conceptual understanding of limit, continuity, differentiation, and integration and a thorough background in the techniques and application of the calculus.

Indicators
12.1 Demonstrate a conceptual understanding of and procedural facility with basic calculus concepts.
12.2 Apply concepts of function, geometry, and trigonometry in solving problems involving calculus.
12.3 Use the concepts of calculus and mathematical modeling to represent and solve problems taken from real-world contexts.
12.4 Use technological tools to explore and represent fundamental concepts of calculus.
12.5 Demonstrate knowledge of the historical development of calculus including contributions from diverse cultures.
Program Courses: Advanced Perspectives on Secondary Mathematics, Mathematical Analysis I and II.

Standard 13: Knowledge of Discrete Mathematics
Candidates apply the fundamental ideas of discrete mathematics in the formulation and solution of problems.

Indicators
13.1 Demonstrate knowledge of basic elements of discrete mathematics such as graph theory, recurrence relations, finite difference approaches, linear programming, and combinatorics.
13.2 Apply the fundamental ideas of discrete mathematics in the formulation and solution of problems arising from real-world situations.
13.3 Use technological tools to solve problems involving the use of discrete structures and the application of algorithms.
13.4 Demonstrate knowledge of the historical development of discrete mathematics including contributions from diverse cultures.


Standard 14: Knowledge of Data Analysis, Statistics, and Probability
Candidates demonstrate an understanding of concepts and practices related to data analysis, statistics, and probability.

Indicators
14.1 Design investigations, collect data, and use a variety of ways to display data and interpret data representations that may include bivariate data, conditional probability and geometric probability.
14.2 Use appropriate methods such as random sampling or random assignment of treatments to estimate population characteristics, test conjectured relationships among variables, and analyze data.
14.3 Use appropriate statistical methods and technological tools to describe shape and analyze spread and center.
14.4 Use statistical inference to draw conclusions from data.
14.5 Identify misuses of statistics and invalid conclusions from probability.
14.6 Draw conclusions involving uncertainty by using hands-on and computer-based simulation for estimating probabilities and gathering data to make inferences and conclusions.
14.7 Determine and interpret confidence intervals.
14.8 Demonstrate knowledge of the historical development of statistics and probability including contributions from diverse cultures.

Standard 15: Knowledge of Measurement
Candidates apply and use measurement concepts and tools.

Indicators
15.1 Recognize the common representations and uses of measurement and choose tools and units for measuring.
15.2 Apply appropriate techniques, tools, and formulas to determine measurements and their application in a variety of contexts.
15.3 Completes error analysis through determining the reliability of the numbers obtained from measures.
15.4 Demonstrate knowledge of the historical development of measurement and measurement systems including contributions from diverse cultures.

Program Courses: Research in Mathematics Education

Field-Based Experiences (Standard 16)
The development of mathematics teacher candidates should include opportunities to examine the nature of mathematics, how it should be taught and how students learn mathematics; observe and analyze a range of approaches to mathematics teaching and learning, focusing on the tasks, discourse, environment and assessment; and work with a diverse range of students individually, in small groups, and in large class settings.

Standard 16: Field-Based Experiences
Candidates complete field-based experiences in mathematics classrooms.

Indicators
16.1 Engage in a sequence of planned opportunities prior to student teaching that includes observing and participating in both middle and secondary mathematics classrooms under the supervision of experienced and highly qualified teachers.
16.2 Experience full-time student teaching in secondary mathematics that is supervised by a highly qualified teacher and a university or college supervisor with secondary mathematics teaching experience.
16.3 Demonstrate the ability to increase students’ knowledge of mathematics.

Program Courses:
Appendix B
Syllabi

Course Syllabus

Course Number: MATH 6003
Course Title: Dynamical Systems and Applications
Prerequisite: Ordinary Differential equations (Math 3303), or Calculus III (Math 2654)

Topics include:
- Linear dynamical systems, stability of linear systems
- Generation of dynamical systems by systems of ODE
- Local theory of nonlinear dynamical systems
- Bifurcation theory
- Applications

Learning Outcomes:
It is expected that the student who completes this course will:
- Analyze properties of linear dynamical systems and their stability theory.
- Demonstrate the ability to apply the conditions for the generation of dynamical systems by an ordinary differential equation to study the problems arising from the real world.
- Demonstrate the ability to apply the concepts of stability, instability and the procedure of linearization at equilibria.
- Analyze bifurcation phenomena when there is a loss of stability.
- Apply analysis of dynamical systems to Physics, Biology, Chemistry and Engineering.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
  Tests: 50%;
  Projects: 20%;
  Final Exam: 30%.
Course Syllabus

Course Number: MATH 6043
Course Title: Topics in Number Theory
Credit Hours: 3
Instructor: staff (graduate faculty member)
Prerequisite: MATH 3413 or equivalent

Topics:
1. Divisibility
2. Congruences
3. Quadratic Reciprocity and Quadratic forms
4. Number Theory Functions
5. Diophantine Equations
6. Farey Fractions and Irrational Numbers
7. Continued Fractions
8. Primes and Multiplicative Number Theory
9. The Partition Function

Learning outcomes:
It is expected that the student who completes this course will

- Demonstrate an understanding of the notion of congruences by solving linear and quadratic congruences.
- Demonstrate the ability to reproduce precise statements of the following theorems, and apply them to solve problems: Fermat’s theorem, Lagrange’s theorem, Wilson’s theorem, the law of quadratic reciprocity, the Chinese Remainder Theorem.
- Demonstrate a solid understanding of the various methods of mathematical proofs. The student will demonstrate this understanding by applying these methods to prove appropriate number theoretical theorems and/or facts.
- Demonstrate an ability to read and comprehend mathematical statements and proofs. This will be measured by having the student independently read passages and proofs containing mathematical language, in the text and in assignments, and then use these statements to draw further logical conclusions or complete mathematical proofs.
- Apply the prime number theorem and its corollaries to derive information about the frequency of the prime numbers and solve problems involving limit theorems concerning the set of prime numbers.
- Demonstrate an understanding of the fundamental theory of partitions through the use of such methods as generating functions and Ferrer’s graphs to establish classical identities.

Grading Methods: In-class tests, take-home tests, final exam, homework, projects, as determined by instructor.
Course Syllabus

Course Number: MATH 6103  
Course Title: Discrete Optimization  
Prerequisite: MATH 2853, MATH 4483

Topics:
- Discrete optimization problems (traveling salesman, minimal spanning tree, linear programming, scheduling, etc.)
- Simplex algorithm,
- Primal-dual algorithms,
- Complexity,
- Matching and weighted matching,
- Spanning trees,
- Matroid theory,
- Integer linear programming,
- Approximation algorithms,
- Branch-and-bound,
- Local search and polyhedral theory

Learning Outcomes:
It is expected that upon completion of this course, the student will demonstrate the ability to:
- Apply the basic concepts and definitions of discrete optimization.
- Apply the simplex algorithm and primal-dual algorithms.
- Determine the complexity of different algorithms.
- Apply of the concepts of matchings, weighted matchings, and spanning trees.
- Apply the concepts of matroid theory.
- Apply integer linear programming and approximation algorithms to optimization problems.
- Apply Branch-and-bound, local search, and polyhedral theory to optimization problems.

Grading Procedure:
Tests: There will be two in-class tests.  
Assignments: There will be eight assignments that will be turned in and graded. You must complete these assignments on your own.  
Homework: Homework will be assigned from almost all sections covered. Homework is not collected, but should be completed before the next class meeting.  
Final Exam: The final exam will be comprehensive.

The grade is determined as follows:
- 45% Tests  
- 30% Assignments  
- 25% Final Exam
Course Syllabus

Course Number: MATH 6203  
Course Title: Applied Probability  

Credit Hours: 3  
Prerequisite Math 1634, Math 2063 or an equivalent

Topics:  
1. Probability counting methods  
2. Discrete random variables and their distributions  
3. Continuous random variables and their distributions  
4. Expected value  
5. Sampling distributions  
6. Central Limit Theorem  
7. Normal approximation to the Binomial

Learning Outcomes  
It is expected that a student who completes this course will
* Show the ability to recognize and describe discrete and continuous random variables.  
* Find probabilities associated with particular random variables, in both discrete and continuous models.  
* Demonstrate proper use of the notation and language of probability theory.  
* Apply the basic rules of probability to specific problems.  
* Use the notion of expected value to find the mean and variance of discrete and continuous variables, through class projects and exams.  
* Demonstrate an understanding of the interplay between probability and statistical inference.  
* Apply the Central Limit Theorem to a variety of problems.

Grading Procedure  
Three exams over appropriate material  
A project consisting of assigned problem sets throughout the course  
A comprehensive final exam

The grade in the course will be determined as follows

3 exams  60%  
Project  20%  
Final  20%
Course Syllabus

Course Number: MATH 6213  
Course Title: Statistical Methods  
Prerequisite: Elementary Linear Algebra (Math 2853)

Topics include:  
- Estimation  
- Confidence intervals  
- Hypothesis tests  
- Nonparametric tests  
- Analysis of Variance  
- Regression  

Learning Outcomes: It is expected that a student who completes this course will have the ability to:  
- Find and interpret interval estimates through exam questions.  
- Test hypotheses about parameters through class assignments and test questions.  
- Demonstrate correct use of p values via homework and exam questions.  
- Demonstrate proper use of the Z, t, F, and Chi-square distributions in hypothesis tests.  
- Find and analyze linear regression models.  
- Make inferences about a parameter using information from a sample.  
- Make proper use of the analysis of variance procedure.  
- Analyze count data.  
- Apply nonparametric tests.  

Grading Procedures  
Exams 3 exams will be given throughout the semester  
Project There will be a project consisting of different problem sets assigned throughout the semester.  
Final A comprehensive final will be given  
The grade in the course will be determined as follows:  
3 exams 60\%  
Project 20\%  
Final 20\%
Course Syllabus

Course Number: MATH 6233
Course Title: Geometry
Prerequisite: MATH 3003

Topics:
1. Preliminaries (1.1-1.6)
2. Affine and projective planes (2.1-3.7)
3. Affine and projective planes over fields (4.1-5.8)
4. Affine and projective spaces (6.1-7.5)
5. Closure spaces (8.1-8.5)

Learning Outcomes:
It is expected that upon completion of this course, the student will
- Be able to reproduce the statements and proofs of Desargue’s Theorem and Pappus’ theorem.
- Perform arithmetic operations in finite fields.
- Demonstrate a thorough knowledge of affine and projective planes, and their relationship with each other.
- Demonstrate an understanding of the relationship between Latin squares and affine planes.
- Be able to list and describe the properties of affine and projective spaces
- Demonstrate a basic knowledge of the properties of closure spaces.

Grading Procedure:
Tests: There will be two in-class tests.
Assignments: There will be eight assignments that will be turned in and graded. You must complete these assignments on your own.
Homework: Homework will be assigned from almost all sections covered. Homework is not collected, but should be completed before the next class meeting.
Final Exam: The final exam will be comprehensive.

The grade is determined as follows:
- 45% Tests
- 30% Assignments
- 25% Final Exam
Course Syllabus

Course Number: MATH 6253
Course Title: Mathematical Analysis I
Prerequisite: MATH 3003

Topics include:
1- The Real and Complex Number Systems
2- Basic Topological Properties
3- Numerical Sequences and Series
4- Continuity of Functions
5- The Riemann-Stieltjes Integral
6- Sequences and Series of Functions
7- The Lebesgue Theory

Learning Outcomes:
It is expected that the student who completes this course will:

- Demonstrate the ability to apply the completeness of the real and complex number system and Euclidean spaces to study the continuity, differentiability and other properties of functions.
- Demonstrate knowledge on basic topological properties of metric spaces by solving exam problems dealing with convergence of sequences and the continuity of functions.
- Solve exam problems involving numerical series using basic techniques from the course.
- Demonstrate the ability to solve problems by using the basic properties of continuous functions.
- Show the ability to apply the properties of the Riemann-Stieltjes integral on homework and exam problems.
- Apply the concepts of uniform convergence, the Arzela-Ascoli theorem, and the Stone-Weierstrass theorem in proofs and homework and exam problems.
- Demonstrate the comprehension of the Lebesgue measure, measure spaces, and the Lebesgue integral.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
Course Syllabus

Course Number: MATH 6263
Course Title: Mathematical Analysis II
Prerequisite: MATH 6253

Topics include:
1. Metric Spaces
2. Topological Spaces
3. Compact Spaces
4. Banach Spaces
5. Measure and Integration
6. Measure and Outer Measure
7. The Daniell Integral
8. Measure and Topology

Learning Outcomes:
It is expected that the student who completes this course will:

- Apply the basic properties of metric, topological, and Banach spaces to the proofs of theorems, and to solve problems concerning the general theory of measure and integration.
- Apply the definitions of abstract measures and integration in class projects, homework, and exam questions.
- Analyze and apply properties of the Daniell integral.
- Analyze connections between the measure and the topological structure on measure spaces via the concepts of Baire sets, Borel sets, Baire measures and the Riesz representation theorem of bounded linear functionals.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%. 
Course Syllabus

Course Number: MATH 6303  
Course Title: Introduction to Mathematical Control Theory  
Prerequisite: MATH 2654, MATH 2853

Topics include:
- Discrete-time and continuous-time systems
- Reachability and controllability
- Feedback and stabilization
- Outputs

Learning Outcomes:
It is expected that the student who completes this course will:
- Analyze properties of systems such as discrete-time and continuous-time systems.
- Demonstrate the ability to apply the controllability of pairs of matrices in time-invariant linear systems, bounded controls and piecewise constant controls.
- Demonstrate the ability to apply the concept of feedback control and Lyapunov stability to the stabilization problem of a system.
- Demonstrate the ability to apply the method of linearization to the study of the observability of linear, time-invariant systems.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%;  
Projects: 20%;  
Final Exam: 30%.
Course Syllabus

Course Number: MATH 6363
Course Title: Theory of Partial Differential Equations
Prerequisite: MATH 3303, MATH 3243

Topics include:
- Well-posed problems, regularity, asymptotics, maximum principles.
- Linear equations: Transport equation, Laplace’s equation, heat equation, wave equation, energy methods, separation of variables, transform methods, power series, fundamental solutions, Green’s functions.
- Nonlinear 1st order equations: complete integrals, envelopes, characteristics, conservation laws.
- Linear evolution equations, second order elliptic equations.

Learning Outcomes:
It is expected that the student who completes this course will demonstrate the ability to:
- Classify PDEs according to type and linearity.
- Solve linear PDEs using methods such as separation of variables, fundamental solutions, power series, Green’s functions, and transform methods.
- Apply basic existence and regularity theory to linear PDEs.
- Solve nonlinear 1st order PDEs using the method of characteristics.

Grading Policy:
Tests: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
   Tests: 50%;
   Projects: 20%;
   Final Exam: 30%.
Course Syllabus

Course Number: MATH 6403
Course Title: Signal Processing
Textbook:
Prerequisite: MATH 3243

Topics include:
- Fourier Transforms
- Fourier Series
- Fast Fourier Transforms FFT
- Filtering
- Sampling
- Digital Signal Processing

Learning Outcomes:
Students completing this course will demonstrate the ability to:
- State basic properties of the Fourier transforms, Fourier series, and FFT in L1 and L2 spaces.
- Apply the Fourier transforms, Fourier series, and FFT in signal analysis.
- Apply mathematical principles of signal processing (Impulse and Frequency Responses, Matching and Filtering, Band-limited and Band-pass Signals, Shannon Sampling Formula, Reconstruction and Aliasing, Analysis and Synthesis).

Grading Policy:
Tests: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be take-home assignments, which will be graded.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 60% ;
Projects: 10% ;
Final Exam: 30%.
Course Syllabus

Course Number: MATH 6413
Course Title: Advanced Modern Algebra I
Credit Hours: 3
Instructor: staff (graduate faculty member)
Prerequisite: MATH 3413 or equivalent
Textbook: Abstract Algebra, 3rd Edition
          by D. Dummit and R. Foote, Wiley

Topics:
- Introduction to Groups.
- Subgroups.
- Quotient Group and Homomorphisms.
- Group Actions.
- Direct and Semidirect Products and Abelian Groups.
- Further Topics in Group Theory.

Learning outcomes: The student completing the course will:
- Analyze the properties of both finite and infinite groups.
- Demonstrate the ability to prove and apply the following theorems: Fundamental
  theorem of finitely generated abelian groups, the Jordan-Holder theorem, the
  Sylow theorems.
- Demonstrate the ability to apply various techniques of mathematical proof by
  proving a variety of facts about finite groups and infinite groups.
- Demonstrate the ability to draw lattice diagrams illustrating the complete
  subgroup structure of a finite group.

Grading Methods: In-class tests, take-home tests, final exam, homework, projects, as
determined by instructor.
Course Syllabus

Course Number: MATH 6423
Course Title: Advanced Modern Algebra II
Credit Hours: 3
Instructor: staff (graduate faculty member)
Prerequisite: MATH 6413 or equivalent

Topics:
- Introduction to Rings.
- Euclidean Domains, Principal Ideal Domains and Unique Factorization Domains.
- Polynomial Rings.
- Field Theory.
- Galois Theory

Learning outcomes:
The student completing this course will:
- Analyze properties of rings and fields, both finite and infinite.
- Prove and apply the Fundamental Theorem of Galois theory.
- Demonstrate the ability to apply various techniques of mathematical proof by proving a variety of facts about rings, integral domains, and fields.
- Analyze and prove properties of field extensions.

Grading Methods: In-class tests, take-home tests, final exam, homework, projects, as determined by instructor.
Course Syllabus

Course Number: MATH 6473
Course Title: Combinatorial Analysis

Prerequisite: Admission to the program

Topics:
1. Algorithms and Complexity (2.18)
2. Polya Theory (8.1-8.6)
3. Combinatorial Designs and Latin Squares (9.1-9.5)
4. Coding Theory (10.1-10.5)

Learning Outcomes:
The student completing this course will:
- Analyze the complexity of algorithms and their relation to the problem of NP-completeness.
- Analyze properties of permutation groups and their applications to enumeration of distinct colorings of combinatorial objects.
- Demonstrate the ability to state and apply Burnside’s theorem and Polya’s theorem.
- Demonstrate the ability to construct mutually orthogonal Latin squares, and then to use them to construct combinatorial designs.
- Demonstrate an understanding of maximum-likelihood decoding and the ability to construct generator and parity-check matrices for linear error-correcting codes.

Grading Procedure:
Tests: There will be two in-class tests.
Assignments: There will be five assignments that will be taken up and graded. You must complete these assignments on your own.
Homework: Homework will be assigned from almost all sections covered. Homework is not collected, but should be completed before the next class meeting.
Final Exam: The final exam will be comprehensive.

The grade is determined as follows:
- 45% Tests
- 30% Assignments
- 25% Final Exam
Course Syllabus

Course Number: MATH 6483
Course Title: Theory of Graphs
Prerequisite: MATH 3003

Topics:
1. Fundamentals (1.1-1.8)
2. Matchings (2.1-2.3)
3. Connectivity (3.1-3.2)
4. Planar Graphs (4.1-4.6)
5. Dense Graphs (7.1-7.3)
6. Graph Ramsey Theory (9.1-9.4)

Learning Outcomes:
The student completing this course will:
• Apply the basic definitions and concepts of graph theory.
• Demonstrate the ability to apply the theory of matchings in bipartite and general graphs, and the ability to state and prove Tutte’s 1-factor theorem, Peterson’s theorem, Hall’s theorem, and the Marriage theorem.
• Analyze and apply properties of vertex-connectivity theory, edge-connectivity theory, blocks, and the Max-flow Min-cut theorem.
• Be able to use and prove Euler’s formula for planar graphs and find the dual of a planar graph.
• Be able to state and prove Turan’s theorem.
• Analyze and apply graph Ramsey theory.

Grading Procedure:
Tests: There will be two in-class tests.
Assignments: There will be eight assignments that will be turned in and graded. You must complete these assignments on your own.
Homework: Homework will be assigned from almost all sections covered. Homework is not collected, but should be completed before the next class meeting.
Final Exam: The final exam will be comprehensive.

The grade is determined as follows:
• 45% Tests
• 30% Assignments
• 25% Final Exam
Course Syllabus

Course Number: MATH 6503
Course Title: Numerical Methods in Applied Mathematics
Prerequisite: MATH 2853, MATH 3303

Topics include:
- Norms, floating-point arithmetic and rounding errors, well-posed computations.
- Numerical linear algebra: pivoting, conditioning, factorization methods, iterative methods, computing eigenvalues and eigenvectors.
- Iterative solutions of nonlinear equations: error propagation, higher order methods, Newton's Method.
- Polynomial Interpolation.
- Numerical differentiation and integration.

Learning Outcomes:
It is expected that the student who completes this course will demonstrate the ability to:
- Apply basic concepts behind rounding error and well-posed computations.
- Identify and apply a variety of methods for solving linear systems and doing matrix algebra.
- Identify and apply a variety of iterative methods for solving nonlinear equations.
- Apply methods of polynomial interpolations to problems involving numerical differentiation.
- Apply a variety of methods for performing numerical integration.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
  Tests: 50%;
  Projects: 20%;
  Final Exam: 30%.
Course Syllabus

Course Number: MATH 6513
Course Title: Applied Linear Algebra
Prerequisite: Elementary Linear Algebra (MATH 2853)

Topics include:
- Linear equations solving, error analysis and accuracy
- Linear least square problems
- Non-symmetric eigenvalue problems
- The symmetric eigenvalue problems and singular value decomposition
- Iterative methods for linear systems

Learning Outcomes:
It is expected that the student who completes this course will demonstrate the ability to:
- Apply a variety of methods of solving linear equations, including Gaussian elimination methods, and analyze the error and improve the accuracy,
- Apply the concept the orthogonality to the study of the linear least squares problems.
- Apply the concept of canonical forms and algorithms for eigenvalue problems.
- Apply perturbation theory and basic algorithms for eigenvalue problems.
- Analyze Poisson’s equations in one and two dimensions and apply the iterative methods for linear systems.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%;
Projects: 20%;
Final Exam: 30%.
Course Syllabus

Course Number: MATH 6613
Course Title: Inverse problems
Prerequisite: MATH 6253

Topics include:
- Basis facts from Functional Analysis
- Ill-posed problems
- Regularization of the first kind
- Regularization by discretization
- Inverse eigenvalue problems

Learning Outcomes:
It is expected that the student who completes this course will:
- Demonstrate the ability to apply the basic techniques from Functional Analysis to prove theorems and solve problems concerning the general theory of Inverse Problems.
- Apply of the theory of inverse problems in a variety of settings.
- Demonstrate the ability to apply the methods of regularization of the first kind.
- Demonstrate the ability to apply the methods of regularization by discretization.
- Apply the methods of inverse eigenvalue problems.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%;
Projects: 20%;
Final Exam: 30%.
Course Syllabus

Course Number: MATH 6713
Course Title: Strategies for Teaching Mathematics
Hours Credit: 3 hours
Prerequisites: Admission to the program

Course Description: This course is designed to enable the learner to develop skills in teaching and planning for mathematics instruction at the secondary level. Special emphasis will be given to preparing teachers to teach in a performance-based curriculum.

Topics: lesson planning, unit planning (including the backward design model), instructional models (including concept attainment, inquiry development, laboratory activities, group investigations, teacher centered instruction), differentiated instruction, assigning homework, problem solving, technology in the math classroom

Sample Text(s):

Additional Reference:

Learning Outcomes: It is expected that the student who completes this course will demonstrate the ability to:
(1) Design lessons incorporating a variety of instructional models.
(2) Develop unit plans using the backwards design.
(3) Differentiate instruction based on the needs of students.
(4) Use major theories of motivating students from different backgrounds to learn mathematics in designing instruction.
(5) Develop lessons involving the use of manipulative materials and/or technology.

Grading Methods: [Check all that apply]
☐ Tests - % decided by instructor
☐ Quizzes - % decided by instructor
☑ Midterm Exam - % decided by instructor
☑ Final Exam - % decided by instructor
☑ Homework - % decided by instructor
☑ Paper(s) - % decided by instructor
☑ Project(s) - % decided by instructor
☑ Other - % decided by instructor

**Grading Scale:** [Check which one applies]

☐ Pass/Fail

☑ Letter Grade
  
  A = 90 - 100
  B = 80 - 89
  C = 70 - 79
  F = below 70
Course Syllabus

Course Number: MATH 6723  
Course Title: Assessment and Classroom Management in Mathematics Education  
Hours Credit: 3 hours  
Prerequisite: Admission to the program

Course Description: This course is designed to enable the learner to develop skills in assessment and evaluation as well classroom management in the secondary-level mathematics classroom. Special emphasis will be given to the preparation and assessment of performance-based tasks.

Topics: performance-based tasks, test/quizzes, informal assessments, academic prompts, rubrics, grading, using assessment to inform instruction, classroom management, rules/procedures, disciplinary interventions, teacher-student relationships.

Sample Text(s):

Additional Reference:

Learning Outcomes: It is expected that the student who completes this course will demonstrate the ability to:
- design appropriate assessment and evaluation instruments along with scoring rubrics;
- differentiate between the purpose of evaluation and assessment instruments;
- use assessment information to inform instructional practices;
- develop classroom policies and procedures;
- develop an effective discipline plan; and
- state the elements of an effective student-teacher relationship.

Grading Methods: [Check all that apply]
- ✔ Tests - % decided by instructor
- ❌ Quizzes - % decided by instructor
☒ Midterm Exam - % decided by instructor
☒ Final Exam - % decided by instructor
☒ Homework - % decided by instructor
☒ Paper(s) - % decided by instructor
☒ Project(s) - % decided by instructor
☒ Other - % decided by instructor

Grading Scale: [Check which one applies]
☐ Pass/Fail
☒ Letter Grade
   A = 90 - 100
   B = 80 - 89
   C = 70 - 79
   F = below 70
Course Syllabus

Course Number: MATH 6733  
Course Title: Research in Mathematics Education  
Hours Credit: 3 hours  
Prerequisites: Admission to the program

Course Description: This course is designed to enable the learner to review, analyze, and interpret available research in mathematics education with emphasis on the application of research to the secondary mathematics classroom.

Topics: history of research in mathematics education, research methods, mathematics teaching, teachers’ beliefs, research on whole number operations, rational numbers, algorithms, algebra, geometry, data, probability, measurement, problem solving, reasoning & proof, and communication & language.

Sample Text(s):

Learning Outcomes: It is expected that the student who completes this course will demonstrate the ability to:
(1) Analyze behavioral, education, and mathematical studies for improving mathematics education and assess their significance.
(2) Identify standard summaries of research in mathematics education and to identify areas of research with implications for teacher’s current assignment or study;
(3) Identify and list journals which publish research articles in mathematics education;
(4) Make decisions about educational practices based on research; and
(5) Read research reports critically.

Grading Methods: [Check all that apply]
☑ Tests - % decided by instructor
☑ Quizzes - % decided by instructor
☑ Midterm Exam - % decided by instructor
☑ Final Exam - % decided by instructor
☑ Homework - % decided by instructor
☑ Paper(s) - % decided by instructor
☑ Project(s) - % decided by instructor
☑ Other - % decided by instructor

Grading Scale: [Check which one applies]
☐ Pass/Fail
☒ Letter Grade
  A  = 90 – 100
  B  = 80 – 89
  C  = 70 – 79
  F  = below 70
Course Syllabus

Course Number: MATH 6743
Course Title: Advanced Perspectives on Secondary Mathematics
Prerequisite: MATH 3243 and MATH 3413 or the equivalent

Topics:
1. Features of an advanced perspective: concept analysis, problem analysis, mathematical connections
2. Real and Complex Numbers
3. Functions
   a. History and Definitions
   b. Properties of Real Functions
   c. Problems Involving Real Functions
4. Equations
   a. The Concept of Equation
   b. Algebraic Structures and Solving Equations
   c. The Solving Process
5. Integers and Polynomials
   a. Natural Numbers, Induction, Recursion
   b. Divisibility Properties of the Integers
   c. Divisibility Properties of Polynomials
6. Number System Structures
   a. Systems of Modular Arithmetic
   b. Number Fields

Learning Outcomes: It is expected that the student who completes this course will demonstrate the ability to:
• Analyze the origins, representations, and applications of mathematical concepts.
• Analyze solutions of mathematical problems to determine (i) alternate means of solving and/or representing the solution, (ii) ways of extending and/or generalizing the problem.
• Explain the construction of the real and complex number systems and various ways of representing real and complex numbers.
• Describe the origins and meaning of notation used to represent functions.
• Describe the various ways of representing and defining of functions.
• Analyze common mathematical problems and real-world models using functions.
• Make mathematically precise notions of equivalence and equality.
• Describe various ways of representing solutions of equations.
• Analyze solving of equations in an abstract-algebra setting.
• Use the theory of functions in solving equations and inequalities.
• Construct and analyze proofs using mathematical induction.
• Recognize and prove various logical equivalences to mathematical induction.
• Apply and prove the Division Algorithm and the Euclidean Algorithm.
- Extend the Division and Euclidean Algorithms to polynomials.
- Develop and apply algebraic properties of modular arithmetic systems.
- Relate integer congruence to real-world applications.
- Prove and apply the Chinese Remainder Theorem.
- Relate properties of the real and complex number systems to general ordered fields.

**Grading Procedure:**

**Problem Sets:** There will be a set of problems assigned after each section covered in the text.

**Projects:** There will be a project associated with each Chapter of the text, six in all.

**Final Exam:** There will be a comprehensive take-home final exam.

**For your grade in the course, the grade will be determined as follows**
- Problem Sets 40%
- Projects 40%
- Final Exam 20%
Course Syllabus

Course Number: MATH 6903
Course Title: BioMathematics

Textbooks:

Prerequisite: MATH 2853, MATH 3303, reasonable background in Biology

Topics include:
- Model building in development of experimental science
- Mathematical theories and models for growth of one-species
- Mathematical theories of two and more species systems (predator-prey, competition, symbiosis; leading up to present-day research)
- Mathematical treatment of differential equations in models stressing qualitative and graphical aspects, as well as certain aspects of discretization
- Difference equation models
- Scrutiny of biological concepts as well as of mathematical structure of models in order to uncover both weak and strong points of models.

Learning Outcomes:
It is expected that the student who completes this course will:
- Demonstrate knowledge of the basic techniques of modeling using differential or difference equations.
- Demonstrate the ability to apply mathematical theories and models for growth of one-species populations (logistic and offshoots), including considerations of age distributions (matrix models, Leslie and Lopez).
- Demonstrate the ability to apply mathematical theories of two and more species systems (predator-prey, competition, symbiosis; leading up to present-day research).
- Analyze mathematical treatment of differential equations in models stressing qualitative and graphical aspects, as well as certain aspects of discretization.
- Demonstrate the ability to apply difference equation models to analyze the growth of populations.
- Demonstrate knowledge of biological concepts as well as of mathematical structure of models in order to uncover both weak and strong points of models.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
Appendix C
Faculty Vitae

Professor Bruce M. Landman (Chair)

Academic Achievement

- Ph.D. Mathematics, Virginia Tech, 1983
- M.A. Mathematics, State University of New York at Binghamton, 1975
- B.A. Mathematics, Queens College of the City University of New York, 1973

Employment History

- Professor and Chair, Department of Mathematics, University of West Georgia, 2001-present
- Professor of Mathematics, University of North Carolina-Greensboro, 2000-01
- Associate Professor of Mathematics, University of North Carolina-G, 1992-2000
- Assistant Professor of Mathematics, UNC-Greensboro, 1988-92
- Assistant Professor of Mathematics, Hofstra University, 1984-88
- Visiting Assistant Professor of Mathematics, Virginia Tech, 1983-84
- Instructor of Mathematics, Virginia Tech, 1978-83

Research Articles

- B. Landman, Ramsey functions related to the van der Waerden numbers, *Discrete Math.* 102 (1992), 265-278.


• B. Landman, Avoiding arithmetic progressions (mod $m$) and arithmetic progressions, *Utilitas Math.* 52 (1997), 173-182.


• B. Landman, On some generalizations of the van der Waerden number $w(3)$, *Discrete Math.* 207 (1999), 137-147.


**Presentations**
Over thirty conference and colloquia presentations.

**Books**


Other Scholarly Accomplishments, Awards, Activities


• Research Council of UNCG, Summer Excellence Research Award, $4000, 1989 and 1991.


• Equipment Grant (with F. Sadri, J. Wang, S. Lea, K. Sivalingam), UNC-G, 1996, $12,000.

• Contributor to article “Reductions and convergence rates of average time” by J. Berlinger and J. Wang, in Lecture Notes in Computer Science, Springer-Verlag, Berlin, 1996.

• Paid research leave, Fall, 1997.


• Graduate Faculty Research Award, University of West Georgia, 2003.

• NSF Conferences in the Mathematical Sciences Grant Integers 2005,” (PI), $6000.

• Number Theory Foundation Conference Support Grant Integers 2005,” $1500.

• NSF Conferences in the Mathematical Sciences Grant Integers 2007, $17,200.

• NSF REU Grant, “Problems in Number Theory, Combinatorics and Graph Theory,” (PI), 2007-2009, $217,000.

• Research has been cited in numerous articles and books

Administrative and Leadership Experience

• Chair, Department of Mathematics, University of West Geogia, 2001-present.


• Director, Undergraduate Studies, 1995-2001.

• Chair, University Student Excellence Award Committee, 1999-2000.

• Honors Council Member, 1997-2000.

• Chair, Search Committee for Crider Endowed Chair in Mathematics, 2002-03.

• University System of Georgia Academic Advisory Committee on Mathematical Subjects, 2001-present.

• Executive Committee, College of Arts and Sciences, 2002-04, 2006-present.

• Budget and Planning Committee, College of Arts and Sciences, 2000-01.

• Chair, Department Personnel Committee, 1992-93, 1994-95, 1997-98.

Leadership Workshops

• American Council on Education workshop “Chairing the Academic Department,” San Antonio, TX, November 7-10, 2001.

Courses Taught
Algebra and Trigonometry; Pre-calculus; Elementary Statistics; Finite Mathematics; Mathematics as Liberal Art; Elementary Set Theory; Logic, and Probability (freshman level); Business Calculus; Calculus I, II, III, IV; Honors Calculus; Sophomore Seminar, Proofs and Mathematical Structures; Discrete Math I; Discrete Math II; Matrix Theory; Linear Algebra with Applications; Elementary Differential Equations; Applied Finite Mathematics; Advanced Calculus; Modern Algebra; Theory of Numbers; Set Theory; Theory of Groups; Combinatorial Analysis; Graph Theory; Applied Combinatorics (Graduate); Graph Theory (Graduate); Number Theory (Graduate); Abstract Algebra (Graduate); Set Theory (Graduate); Combinatorial Number Theory (Graduate)

Other Instructional, Department, University, and Professional Activities
External Examiner for two Ph.D. Theses: V. Jungic, 1999, and H. Ardal, 2007-08, Department of Mathematics and Statistics, Simon Fraser University, BC, Canada

• Chair, Masters Thesis Committee: Kathryn Benjamin, Hofstra University, 1988-89; Mark Pierce, UNC-G, 1999.
• Member, Masters Thesis Committees for 6 students, UNC-G.
• Advisor for all Honors students in Department of Mathematical Sciences, 1997-2000.

• Mentor for several students in North Carolina Teaching Fellows program, 2000-01.
• Director, undergraduate research for Clay Culver, 2003-present.
• Taught four 1-week workshops for area high school teachers in Calculus I and Calculus II (UNCG).
• Developed courses in Combinatorics and Graph Theory at undergraduate level (UWG) and at graduate level (UNCG and UWG)
• Co-author, Applied Mathematics Track for M.A. degree (UNCG).
• Developed Business Calculus course.
• Author of numerous Master’s comprehensive exams (1990-present).
• Organizer, Special Session in Combinatorics and Graph Theory for American Math. Society Southeastern Regional Meeting, Winston-Salem, NC, October 9-10, 1998.
• Organizer of Special Session in Ramsey Theory for American Math. Society Annual Summer Meeting, Burlington, Vermont, August 7-8, 1995.
• UWG Representative to Assoc. of American Colleges and Universities, 2003-present.

• Reviewer for *Math. Reviews*; have reviewed approximately forty articles, 1995-present.


• Grant reviewer, National Science Foundation.

• Grant reviewer, National Science and Engineering Research Council of Canada.


• Member of following organizations: *Institute of Combinatorics and Its Applications (Fellow)*, *Amer. Math. Soc.*, *Math. Assoc. Amer.*, *Fibonacci Assoc.*.

• Member, College Faculty Leave Committee, 2003-04; Chair, Department Library Committee, 2000-01; Department Honors Liaison, 1997-2001; Chair, Department Calculus Committee, 1999-2000; Member, Department Library Committee, 1995-2000; Assessment Liaison to College, 1996-2000; Chair, Search Committee for Applied Mathematics Position, 1998-99; Technology Liaison to College, 1997-99; Member, University Student Excellence Awards Committee, 1998-99; Member, Department Committee on Technology in Classroom, 1998-99; Member, Department Calculus Committee, 1998-99; Member, University Honors Curriculum Committee, 1997-98; Member, University Honors Council Tutorials Committee, 1997-98; Chair, Department Assessment Committee, 1996-98; Member, College Promotion and Tenure Committee, 1996-98; Technology Liaison to College; Chair, Department Assessment Committee; Member, Committee to Review Personnel Committee, 1996-97; Member, Department Personnel Committee, 1990-92, 1993-94, 1996-97; Chair, Search Committee Mathematics position, 1994-95; Member, Department Undergraduate Studies Committee, 1993-95; Member, Department Graduate Committee, 1993-95; Member, Search Committee Mathematics Position, 1989-90, 1993-94; Member, Search Committee for Computer Science position, 1992-93; Member, Department Scholarship Committee, 1988-93; Member, Department Ph.D. Committee, 1992-93; Member, Department campaign to recruit high school seniors, 1992-93; Advisor for Pi Mu Epsilon, 1990-91.
JOY W. BLACK (Assistant Professor)

PERSONAL DATA:
523 Motley Road
Daviston, AL 36256
256-395-4647

ACADEMIC BACKGROUND

PhD Mathematics Education, Auburn University
M.A. Mathematics Education, The University of Alabama, 1978
B.S. Mathematics Education, The University of Alabama, 1975

PROFESSIONAL WORK EXPERIENCE

2004-Present Assistant Professor of Mathematics, Mathematics Department, The University of West Georgia
Courses Taught – MATH 2703, MATH 3703, MATH 3803
Committees –
  Georgia Assessments for Certification of Educators (GACE) –
  Content Advisory Committee
  PRISM Committee
  Math Day Committee
  Middle School Mathematics Committee
Graduate Teaching Assistant, Curriculum & Teaching, Secondary Mathematics, Auburn University
  Instructor – Developmental Mathematics
TEAM-Math (Transforming East Alabama Mathematics – NSF funded math partnership), Auburn University
  Leader – Summer Professional Development (Second Grade)

2003-2004 Graduate Research Assistant, TEAM-Math, Auburn University
Served on the following TEAM-Math committees
  Teacher Preparation Planning Team
  Professional Development Planning Team
  Evaluation Team
  Leader - Summer Professional Development (Second Grade)
Secondary Mathematics Intern Supervisor

2003-2004 Graduate Teaching Assistant, Curriculum & Teaching, Secondary Mathematics, Auburn University
  Co-Instructor – Using Technology in Teaching and Learning Mathematics
  Co-Instructor – Curriculum and Teaching in Secondary Mathematics

2002-2003 Graduate Teaching Assistant, Mathematics Department, Auburn
University
Courses Taught - MATH 2850 - Mathematics for Elementary Teachers

2002-2003  Graduate Research Assistant, Illuminations, Auburn University
1994-2002  Mathematics Instructor, Horseshoe Bend High School, Tallapoosa County Board of Education - Alabama
1988-1994  Mathematics Instructor, Edward Bell High School, Tallapoosa County Board of Education - Alabama
1978-1988  Mathematics Instructor, Davison High School, Tallapoosa County Board of Education - Alabama
1975-1978  Mathematics Instructor, Berry High School, Fayette County Board of Education - Alabama
1975      Secretary, The University of Alabama Department of Psychology, University, Alabama


ACADEMIC LEADERSHIP

1994-2002  Horseshoe Bend High School  Mathematics Department Chairperson
           Mathematics Department Chairperson
           Math-A-Thon Coordinator
           Social Committee Chairperson
           American Education Week Committee
           Technology Committee
           Faculty Representative on County Block Scheduling Committee

1988-1994  Edward Bell High School  Mathematics Department Chairperson
1978-1988  Davison High School    Mathematics Department Chairperson
           Faculty Testing Coordinator
           Faculty Representative on the County Technology Committee

1975-1978  Berry High School       Mathematics Department Chairperson
           Southern Accreditation Committee

PROFESSIONAL ORGANIZATIONS

American Educational Research Association
National Council of Teachers of Mathematics
Association of Mathematics Teacher Educators
Georgia Association of Mathematics Teacher Educators
Mathematical Association of America
National Education Association
Alabama Education Association
Tallapoosa County Education Association (Retired)
PUBLICATIONS


PRESENTATIONS


Black, J. W. (January, 2007). Carroll County Inservice, Workshop – Algebra and Patterns, Carroll County, GA.


Black, J. W. (October, 2005). Georgia Council of Teachers of Mathematics State Meeting, Workshop – Patterns, Where’s the Mathematics, Madison, GA.

Black, J. W. (October, 2005). Columbus Regional Mathematics Collaborative Workshop – Proportional Reasoning, Columbus, GA.


Black, J. W. (February, 2004). Phenix City Board of Education Inservice, Workshop – Problem Solving, Phenix City, AL.


HONORS AND AWARDS

Alpha Theta Chi
Secondary Teacher of the Year – Horseshoe Bend High School
Secondary Teacher of the Day – Horseshoe Bend High School
Who’s Who Among American High School Teachers
Who’s Who Among American Teachers
Tandy Scholarship Nominee
Dr Amin Boumenir
(Associate Professor)

Academic Achievement
- Ph.D. University of Oxford, United Kingdom, 1983-1986: The Inverse Spectral Problem and the Factorization, Advisor: Professor J.B. McLeod, F.R.S
- M.Sc. The blow-up Problem, 1982-1983, Advisor: Professor J.B. McLeod

Employment History
- Assistant Professor, State University of West Georgia, 2001- present,
- Visiting professor, Moravian College, PA, 2000-2001
- Associate Professor, Sultan Qaboos University, 1998-2000
- Associate Professor, King Fahd University, 1995-1998
- Assistant Professor, King Fahd University, 1988-1995
- Assistant Professor, University of Algiers, 1987-1988
- Research Fellow, University of Wales, 1986-1987

Teaching
- Graduate courses: Methods of Applied Mathematics, Advanced Partial Differential Equations, Numerical Analysis, Reading and Research, Special Topics in Reaction-Diffusion equations
- Undergraduate courses: Precalculus /College Algebra (I), College Algebra (II), Trigonometry, Calculus I, Calculus II, Calculus with review, Differential Equations, Introduction to Numerical Analysis, Engineering Math, Advanced ODE and Stability theory, PDE's, Problem Solving

Ph.D. advisor
- Mr. A. Al Shuabi: Ph.D, Sep89-Sep92, The Numerical Inversion of the Laplace Transform
- Mr Abu Zaid, Ph.D, Sep89-Sep92, Thesis on: Finite Difference Method for a Singular B.V.P.
- Mr G. K. Beg, Ph.D, Jan92-Jan94, Galerkin Method for a Nonoscillatory, nonlinear B.V.P.

M.Sc advisor
- Mr. A. Al Hussain, M.Sc., Jan 93- Jan 94, Studies on Blow-up (the unbounded domain)
- Mr. H. Al Attas, M.Sc., Sep93- June 94, Blow-up by Comparison (The Chipot-Weissler equations)

Service Committees
- Undergraduate Committee (SUWG) (member)
- Assessment committee (SUWG) (member)
- Colloquia Committee (SUWG)
• Library committee (SUWG) (member)
• Graduate committee (chair)
• Undergraduate curriculum (K.F.U.P.M) for 3 Years
• Graduate committee (Ph.D) (K.F.U.P.M) for 7 years
• Teaching Committee (SQU) for 2 years.

Professional growth

Awards:
• SHOMAN Foundation Prize for Young Arab Mathematician. 1999
• Scholarship to study in the United Kingdom. 1981:
• President's Prize for Baccalaureat in Mathematics. 1977:

Membership:
• American Mathematical Society, S.I.A.M.,
• Reviewer for Math Reviews (AMS), and Zentralblatt (EMIS)

Publications
I have over 60 published papers. See http://www.westga.edu/~math for more details.

Invited talks
I have presented papers, as an invited speaker, at more than 16 international conferences, universities and research centers. See http://www.westga.edu/~math for more details.

F. Editorships
Ayona Chatterjee
(Assistant Professor)

PERSONAL INFORMATION

3201 POST WOODS DR, #A, ATLANTA, GA 30339
PHONE 678-839-4142 • E-MAIL ACHATTER@WESTGA.EDU

- Nationality: Indian
- Date of Birth: 8th June 1979

OBJECTIVE

My primary objective is to apply my statistical knowledge to different scenarios and develop novel techniques to model them. I enjoy teaching statistics and find sharing my knowledge with others a stimulating experience.

CURRENT POSITION

Currently working as Assistant Professor in the mathematics department of University of West Georgia, Carrollton, GA.

WORK EXPERIENCE

2005-2006 University of West Georgia
Instructor
- From August 2005 to May 2005, worked at the mathematics department of University of West Georgia as a full time instructor. My duties involved teaching undergraduate courses in Business Calculus, College Algebra, Introductory Statistics and graduate level courses in Mathematics Probability and Statistical Theory.

2002-2005 University of Edinburgh
Tutor and Demonstrator
- Tutored under graduate students of University of Edinburgh in Mathematical Methods and Applied Mathematics; these were compulsory courses for all science graduates.
- Worked as a demonstrator for the Statistical Software, Minintab.

2003-2005 University of Edinburgh
Statistical Consultant
- On behalf of BioSS, I worked as a statistical consultant to graduate students in Animal Behavior and Welfare at University of Edinburgh.

2003-2005 Institute of Actuaries
Assistant Examiner
• Have been an assistant examiner for the Statistical Modelling paper for the Faculty and Institute of Actuaries UK, from May 2003-Jun 2005

EDUCATION

2002 – 2005 BioSS and University of Edinburgh, UK
PhD in Probabilistic Risk Assessment of Dietary Data
• My PhD was with the University of Edinburgh, School of Mathematics while I was located at Biomathematics and Statistics Scotland (BioSS) for my research. I developed models using Markov Chain Monte Carlo methods to study risk from high levels of consumption and contamination in food. I gained expertise in using WinBUGS for my analysis. Minitab and S Plus are the other softwares that I made use of. I am competent in using Latex and Scientific Word.

2000-2002 University of Pune, India
MSc in Statistics First class with distinction
• Secured my Masters degree from University of Pune. We had 20 taught courses covering most topics in Statistics including Design of Experiments, Sampling Techniques, Survival Analysis, and Parametric Inference. We also covered courses in Advanced Calculus.

1997-2000 University of Pune, India
BSc in Statistics First class with distinction
• My specialization was Statistics but I also studied Mathematics and Physics until my second year. All basic techniques in Statistics were covered and I also developed competence in the C language.

RESEARCH PAPERS AND PRESENTATIONS
• May 2002, analyzed data on ‘Depression in Adolescents’ as a part of my final semester studies during my MSc. The data were from a hospital in UK and we used Logistic regression to find covariates and their significance in influencing the onset of depression.
• July 2001, worked on Repeated Measurement Studies for an Indian automobile company, Tata Automobiles, Pune. The aim was to develop methods to implement
practice measurement and recording techniques as per the standards set by the QS 2000 manual.

In September 1999, analyzed rainfall data from a district in Western India and looked at peaks and troughs in the rainfall pattern for over a span of 20 years. This was a part of my final year undergraduate project.
Dr William Mark Faucette
(Associate Professor)

**Academic Achievement**
Ph.D. in Mathematics, Brown University, May 1988
Sc.M. in Mathematics, Brown University, May 1987
M.A. in Mathematics, The University of Georgia, June 1983
B.S. in Mathematics, The University of Georgia, June 1983

**Honors**
- Graduated from The University of Georgia as First Honor Graduate, With Highest Honors and With Honors in Mathematics.
- First undergraduate mathematics major ever to write an undergraduate honors thesis at The University of Georgia.
- Member of Pi Mu Epsilon and Kappa Mu Epsilon mathematics honor societies.
- Member of Phi Alpha Phi honor society.
- Elected Phi Beta Kappa, 1982.
- In the 1989--1990 academic year, selected as one of twelve semi-finalists for the Educator of the Year award at Northeast Missouri State University (now Truman State University).
- Granted tenure and promoted to the rank of associate professor of mathematics in the fall of 1998.

**Professional Organizations**
- American Mathematical Society, 1981--present
- Mathematical Association of America, 1988--present

**Scholarly Articles and Books**
I have more than 12 Scholarly Articles and Books. See [http://www.westga.edu/~mfauccett/](http://www.westga.edu/~mfauccett/) for more details

**Seminars and Conferences**
I have presented papers at more than 18 international conferences, universities and research centers.

**Area of Specialization:** Algebraic Geometry

**Thesis Topic:** Harmonic volume and the algebraic inequivalence of homologous cycles in the Jacobian of a Riemann surface.

**Thesis Adviser:** Bruno Harris

**Teaching Experience**
• 1998--present: Associate Professor of Mathematics at the State University of West Georgia.
• 1996--1998: Assistant Professor of Mathematics at the State University of West Georgia. From Fall 1996 to Spring 1998, taught College Algebra; Plane Trigonometry; Calculus I, II, III, and IV; Discrete Structures and College Geometry.
• Summer 1996: Taught in the Governor's Honors Program, a statewide program for gifted high school students, for the State of Georgia.
• 1993--1996: Assistant Professor of Mathematics at West Georgia College. From Fall 1993 to Spring 1996, taught College Algebra; Plane Trigonometry; Calculus I, II, III, and IV; Real Analysis; and College Geometry.
• 1988--1993: Assistant Professor of Mathematics at Northeast Missouri State University (now Truman State University). From Fall 1988 to Spring 1993, taught Calculus I, II, and III; Plane Trigonometry; College Algebra; Advanced Calculus II; Topology; a year-long sequence in abstract algebra at the undergraduate level; and graduate courses in real analysis, complex analysis, point-set topology, differential topology, and algebra.
• Summer 1988: Taught in the Governor's Honors Program, a statewide program for gifted high school students, for the State of Georgia.
• 1984--1986: Teaching Assistant at Brown University.
• Fall 1987: Duties included teaching Advanced Placement Calculus with special emphasis on applications to physics and engineering.
• Summer 1987: Duties included teaching differential calculus to minority premedical students through the Brown University Medical School.
• Fall 1986: Duties included teaching Advanced Placement Calculus.
• Fall 1985 to Spring 1986: Duties included teaching a sequence of two courses in calculus designed for slower students.
• Fall 1984 to Spring 1985: Duties included conducting recitation sessions for a freshman calculus course and grading exams.
• 1980--1983: Math Lab instructor at The University of Georgia. Duties included helping calculus and pre-calculus students with their homework.

**University Service**
• 2000--present: Elected member of the University Post-Tenure Review Appeal Committee
• 2000--2001: Member of the Department of Mathematics Hiring Committee
• 1999--present: Member of the College of Arts and Science Promotion and Tenure Advisory Committee
• 1999--present: Chair of the Department of Mathematics Promotion and Tenure Committee
• 1999--present: Member of the Department of Mathematics Advisory Committee
• 1999--2000: Served on hiring committee to fill three assistant professorships and several instructorships.
• 1998--present: Member of the Department of Mathematics Promotion and Tenure Committee
• 1997--1998: Member of the Teacher Education Advisory Committee
• 1997--1999: Member of the College of Arts and Science Executive Committee
• 1997--present: Adviser of the Gay, Bisexual, Straight Alliance at the State University of West Georgia
• 1988--1999: Served on hiring committee to fill three assistant professorships and several instructorships.
• 1994--1999: Served on the Executive Committee in the Department of Mathematics. Chaired a subcommittee that designed an applied mathematics option for the Bachelor of Science Degree in Mathematics and constituted a subcommittee that designed a mathematical modeling course as part of this option.
• 1993--present: Coadviser to Kappa Mu Epsilon mathematics honor society.
• 1997--1998: Served on hiring committee to fill one assistant professorship and several instructorships.
• 1996--1997: Served on hiring committee to fill two assistant professorships.
• 1995--1997: Member of the Advisory Committee to the Dean of the School of Arts and Sciences. Served on subcommittee that selected slate of candidates for school-wide elections.
• 1995--1996: Served on hiring committee to fill two assistant professorships.
• 1994--1995: Served on hiring committee to fill three instructorships. Recommended hiring of Kae Harrison, Leslie Redwine, and Paul Lupica.
• 1991--1993: Served on the Undergraduate Committee in the Division of Mathematics and Computer Science overseeing the degree programs in mathematics. During the year 1991--1992, served as chair of the committee. Under my leadership the committee added an undergraduate course in topology, a second semester of advanced calculus, and a second semester of abstract algebra to the undergraduate curriculum. Further, the curriculum was changed to require completion of one sequence of two courses.
• Fall, 1991: Served as faculty representative on the Coeducational Housing Committee. As a member of this committee, I chaired a subcommittee that was responsible for devising plans for expanding coeducational housing opportunities on campus. One of these plans was implemented in the 1992--1993 academic year.
• 1988--1991: Served on the Graduate Committee in the Division of Mathematics and Computer Science overseeing the Master of Arts program in mathematics at Northeast Missouri State University (now Truman State University). I am the primary author of a Five-Year Planning Document for the Master of Arts Program in Mathematics and the designer of an integrated five-year, bachelor/master program in mathematics, allowing exceptional undergraduates to complete both degrees in five years.
• 1990--1992: Elected to represent the Division of Mathematics and Computer Science on the Faculty Senate and the Graduate Council, a university-wide committee overseeing the graduate program. As a member of the Faculty Senate, I represented the faculty on the university-wide Coeducational Housing Committee during Fall Semester, 1991. As a member of the Graduate Council, I was the primary author of the Graduate Student Grievance Policy, which was adopted by the University.
• 1988--1991: Faculty Associate in Missouri North Residential College. This program is designed to integrate the classroom experience with the residential experience for a complete learning environment.

Community Service
• 1994--present: Member of the McDaniel-Curtis Camp of the Sons of Confederate Veterans.
• 1994--present: Member of the St. Margaret's Episcopal Church.
• 1990--1993: Member of the vestry and junior warden of Trinity Episcopal Church. Elected to serve as a representative to the conventions of the Episcopal Diocese of Missouri. Participated in the Special Convention of the Diocese of Missouri for the election of a Bishop Coadjutor in October, 1990.
1989--1991: Member of the Board of Directors of Planned Parenthood of Northeast Missouri.
Dr MICHAEL K. (SCOTT) GORDON  
(Associate Professor)

Academic Achievement
Ph.D., Mathematics, May 1993, Duke University  
M.A., Mathematics, May 1989, Duke University  
B.S. cum laude, Mathematics, May 1987, Duke University

Experience
Associate Professor, State University of West Georgia, 2001-present  
Assistant Professor, State University of West Georgia, 1996-2001  
Visiting Assistant Professor, Georgia Institute of Technology, Spring 2000  
Visiting Assistant Professor, North Carolina State University, 1993-1996  
Graduate Instructor, Duke University, 1988-1993

Teaching
MATH 1111 – College Algebra  
MATH 1112 – Trigonometry and Analytic Geometry  
MATH 1113 – Pre-calculus  
MATH 1413 – Survey of Calculus  
MATH 1634 – Calculus I  
MATH 2644 – Calculus II  
MATH 2654 – Calculus III  
MATH 2853 – Elementary Linear Algebra  
MATH 3303 – Ordinary Differential Equations  
MATH 3353 – Methods of Applied Math  
MATH 4153 – Mathematical Modeling  
MATH 4233 – College Geometry  
MATH 4254 – Mathematical Analysis  
MATH 4264 – Topics in Real Analysis (Taught as independent study)  
MATH 4353 – Complex Analysis  
MATH 4363 – Partial Differential Equations  
MATH 4513 – Honors Linear Algebra

Miscellaneous
• L.P. and Barbara Smith Teaching Award, Duke University, spring 1992  
• Advised teams participating in Mathematical Contest in Modeling, 1998-present  
• Participated in Project STARR (as lecturer), Summer 2000  
• Volunteer tutor in Mathlab, Fall 1999 to present

Publications


• Plane Shear Waves in a Fully Saturated Granular Material with Velocity and Stress Controlled Boundary Conditions (with Michael Shearer and David Schaeffer), Int. J. of Nonlinear Mechanics. 32, no. 3 (1997), pp. 489-503.


• A Mathematical Model for Power Output in Rowing on an Ergometer, Sports Engineering, 6, no. 4 (2003), pp. 221-234.


Jeong-Hyun Kang  
(Assistant Professor)

Department of Mathematics 1335 Meadowood Ln. University of West Georgia  
Douglasville, GA 30135 Carrollton, GA 30118 phone: (404)-718-1578 phone:  
(678)-839-4143 fax: (678)-839-6490 email: jkang@westga.edu

web: www.westga.edu/~jkang

Objectives

To be an educator at both undergraduate and graduate levels while pursuing active research in mathematics, especially Combinatorics, Combinatorial Geometry, and Combinatorial Number Theory.

Education and Employment

Assistant Professor, Fall 2006 to present  
Department of Mathematics, University of West Georgia

Postdoctoral Fellow, Fall 2004 – Spring 2006  
Department of Mathematics, University of Central Florida

Ph.D Mathematics, 2004  
University of Illinois at Urbana-Champaign  
Covering and coloring of metric spaces, and $L(2, 1)$-labeling of graphs  
Advisor: Professor Zoltán Füredi  
Teaching Assistant, Research Assistant, 1997–2004

Teaching Experience

Assistant Professor, University of West Georgia, Fall 2006 – Present

- Number Theory, Calculus I, Business Calculus, College Algebra

Postdoctoral Fellow, University of Central Florida, Fall 2004 – Spring 2006

- Graduate course on Abstract Algebra, Advanced undergraduate course on Number Theory, Calculus with Analytic Geometry I

Teaching Assistant, University of Illinois at Urbana-Champaign, Fall 1997 – Spring 2004

- Instructor for the following courses with full responsibility: Multivariable Calculus, Introductory Linear Algebra, Calculus with Analytic Geometry II, Calculus for Social Scientists
1

TA for the following advanced undergraduate courses with various responsibilities, including grading, office hours, and occasional lectures:
- Probability, Linear Algebra, Combinatorics, Graph Theory
- Co-author of proposal for graduate course on Discrete and Convex Geometry in May 2003.
- Nominee for the department Teaching Award in Spring 2004.

Research Interests

My research interests are in the realm of discrete mathematics. I have worked on a long standing problem in combinatorial geometry related to coloring of metric spaces and its variations, using methods from discrete geometry and probabilistic combinatorics. I also have various results on a central conjecture in $L(2,1)$-labeling of graphs, a generalization of ordinary graph coloring motivated by the channel assignment problem.

In addition, I am also interested in and working on other problems from combinatorial geometry, extremal graph theory, combinatorial number theory, and intersecting families.

Papers and Publications

- Distance graph on $\mathbb{Z}^n$ with $\ell_1$-norm, *Theoret. Comput. Sci.*, Special issue on Combinatorics
- issue in honor of M. Simonovits*, accepted for publication. (with Z. F"uredi) $L(2,1)$-labeling for Hamiltonian graphs of maximum degree 3, *SIAM J. on Disc.*
- *Math, accepted for publication.* Distance graphs on $p$-adic numbers, preprint. (with H. Maharaj)
- Note on geometric progressions, preprint. (with B. Landman)
- $L(2,1)$-labeling and packing of bipartite graphs, preprint. (with Z. F"uredi)
- $L(2,1)$-labeling for Kneser Graphs, preprint.
Security number for Kneser Graphs, preprint.

L(2,1)-labeling for 3-regular graphs, in preparation. (with D.B. West)

Rectilinear equilateral sets in R^n, in preparation.

Persistence of a number, in preparation. (with B. Landman)

Conference Presentations
AMS National Meeting, San Antonio, Texas, Jan. 2006

Midsummer Workshop on Extremal Combinatorics, Charles University,
Prague, Czech Republic, Aug. 2005
AMS National Meeting, Phoenix, Arizona, Jan. 2004

The 17th MCCCC (Midwest Conference on Combinatorics, Cryptography,
and Computing), Las Vegas, Nevada, Nov. 2003 AMS Special Session in
Graphs and Digraphs, Joint Central and Western Section Meet

ing, Boulder, Colorado, Oct. 2003
Conference on Extremal Graph Theory, dedicated to the 60th birthday of

Miklos Simonovits, R´enyi Institute of Hungarian Academy of Sciences,
Balaton, Hungary, June 2003 MIGHTY meetings (Midwest Graph Theory
Conference), Valparaiso, Indiana, Sep.


Seminar/Colloquium Talks
University of Florida, Spring 2006

University of Central Florida, Fall 2004 – Spring 2006
Illinois State University, Feb. 2004

- Rényi Institute of Hungarian Academy of Sciences, Budapest, Hungary, April 2003,

Nov. 2000
University of Illinois at Urbana-Champaign, 2000–2003

- **Academic Services**
  Referee for the journals: Theoretical Computer Science; Networks

- Chair, AMS Session on Combinatorics, National Meeting, Phoenix, Arizona, Jan. 2004

- **Professional Societies**
  American Mathematical Society (AMS)

- Association for Women in Mathematics (AWM)

- Society for Industrial and Applied Mathematics (SIAM)
Dr Abdollah Khodkar

(Associate Professor)

Academic Achievement

• PhD, Combinatorics, The University of Queensland, Australia, 1994. Research Project: Balanced block designs and various properties;

Employment History

Research:

• Associate Professor, Department of Mathematics, University of West Georgia, August 2006 — Present;
• Assistant Professor, Department of Mathematics, University of West Georgia, August 2004 – August 2006;
• Research Fellow Level B, Department of Mathematics, The University of Queensland, January 2002 – August 2004;
• Research Officer Level A, Department of Mathematics, The University of Queensland, Australia, July 1995 – December 1999;
• Senior Research Assistant, Information Security Research Center within the Faculty of Information Technology, Queensland University of Technology, Australia, July 1994 – July 1995;
• Computer Programmer, Information Security Research Center, Faculty of Information Technology, Queensland University of Technology, Australia, July 1994 – December 1996;
• Research Assistant, Department of Mathematics, The University of Queensland, December 1993 – July 1994;

Teaching:

• Associate Professor, Department of Mathematics, University of West Georgia, August 2006 – Present;
• Assistant Professor, Department of Mathematics, University of West Georgia, August 2004 – 2006;
• Visiting Professor Department of Mathematics, Illinois State University, USA, August 2001 – December 2001;
• Lecturer Level A, Department of Mathematics, The University of Queensland, Australia, January 2000 – July 2000;
• Part-time Lecturer, Faculty of Environmental Sciences, Griffith University, Australia, January 2000 – July 2000;
• Invited Lecturer, Ramkhamheang University, Thailand, March 1999 – April 1999;
• Part-time Lecturer, Department of Mathematics, The University of Queensland, Australia, July 1999 – December 2000, February 1997– July 1997;
• Tutorial Assistant, Department of Mathematics, Queensland University of Technology, Australia, February 1995 – July 1995;
• Part-time Lecturer, Sharif University of Technology, Iran, January 1988 – January 1991;
• Tutorial Assistant, Department of Mathematics, The University of Queensland, Australia, January 1993 – December 1993;
• Tutor, Sharif University of Technology, Iran, January 1985 – January 1988.

Graduate Student Research Direction

• Co-advisor: Dr. Nicholas J. Cavenagh, Department of Mathematics, The University of Queensland, Australia, 2001-2004. This supervision has proved extremely productive with four joint papers;
• Co-advisor: Dr. Mahmoud Sheikholeslami, Department of Mathematics, University of Azerbajian, Iran, 2000-2003. This supervision has led to three joint publications.
• Co-advisor: Mr. Carlo Hamalainen, Department of Mathematics, The University of Queensland, Australia, 2002-2004. Carlo was a PhD in Discrete Mathematics.

Courses Taught

• Graduate Courses: Algebra II, Coding Theory and Cryptography III, Discrete Mathematics, Geometries and Designs, Graph Theory, Linear Algebra II;


Other Professional Experiences


• Assessor for Australian Research Council Large Grants;
• Secretary of the Organizing Committee of the 13th Australasian Workshop on Combinatorial Algorithms (AWOCA2002);
• Member of the Program Committee and a Co-editor of the Proceedings of AWOCA.

Service Committees
Search Committees, Graduate committee, Scholarship Committee, Faculty Tenure and Promotion Committee, Faculty Advisory Committee, Writing Across the Curriculum Committee,

**Membership:**

- American Mathematical Society;
- Australian Mathematics Society;
- The Institute of Combinatorics and its Applications;
- Iranian Mathematical Society.

Awards and Grants

- Research Experiences for Undergraduates Grants (2007-2009);
- OPRS (Overseas Postgraduate Research Scholarship) for PhD in Combinatorics, Australian government, 1992;
- Departmental Scholarship, Department of Mathematics, The University of Queensland, 1992;
- University Scholarship, Sharif University of Technology, Tehran, Iran, 1986.

**Computer Experience**

C Language, FORTRAN 90, FORTRAN 77, PASCAL, PL/I, COBOL, LATEX, MATLAB, MAGMA, CPLEX, Otter

**Publications**

I have 70 published, 11 accepted and 4 submitted papers in various refereed journals. See [http://www.westga.edu/~akhodkar](http://www.westga.edu/~akhodkar) for more details.

**Presentations**

I have presented over 25 different papers at the international conferences, universities and research centers. See [http://www.westga.edu/~akhodkar](http://www.westga.edu/~akhodkar) for more details.
Dr. Charles David Leach  (Assistant Professor)

EDUCATION

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<thead>
<tr>
<th>Date</th>
<th>Institution</th>
<th>Degree</th>
</tr>
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<tbody>
<tr>
<td>2002</td>
<td>Auburn University</td>
<td>Ph.D. “Hamilton Decompositions of Multipartite Graphs”</td>
</tr>
<tr>
<td>1999</td>
<td>Auburn University</td>
<td>Master of Applied Mathematics</td>
</tr>
<tr>
<td>1997</td>
<td>Auburn University Montgomery</td>
<td>B.S., Mathematics with Computer Science Emphasis</td>
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</table>

TEACHING EXPERIENCE

<table>
<thead>
<tr>
<th>Date</th>
<th>Position</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-present</td>
<td>Assistant Professor</td>
<td>University of West Georgia</td>
</tr>
<tr>
<td>Summer 1999</td>
<td>Adjunct Instructor</td>
<td>Auburn University Montgomery</td>
</tr>
<tr>
<td>1997-2002</td>
<td>Graduate Teaching Assistant</td>
<td>Auburn University</td>
</tr>
</tbody>
</table>

Courses Taught
- Precalculus, College Algebra, Introduction to Mathematics
- Calculus I, Calculus II, Survey of Calculus, Business Calculus
- Elementary Linear Algebra
- Statistics for Biological and Health Sciences
- College Geometry
- Combinatorics, Graph Theory
- Survey of Computer Applications
- Discrete Mathematics for Middle Grades Teachers
- Geometry for P-8 Teachers
- Transition to Advanced Mathematics

Other Teaching Duties
- Directed three Senior Projects—Sarah Blair, Scott Barnette, and Cheryl Moore
- Served on Four M.Ed. Committees—Peg Cade, Katie Cobb, Barbara Spidahl-Kungu, Bonnie Perkins
- Served on one Ed.S. Committee—Jamy Juhan.

PUBLICATIONS
5. Atif Abueida, Salify Clark, and David Leach, “Multidecomposition of the complete graph into graph pairs of order 4 with various leaves”, Ars Combinatoria, to appear.

PRESENTATIONS
2. Equivalence Classes of 5-Bit Gray Codes, DANGER 2K6, Huntingdon College, July 2006.
5. "Order 4 graph pair multidecompositions of SK_nS with various leaves". 36th Southeastern International Conference on Combinatorics, Graph Theory and Computing, Florida Atlantic University, March 2005.

HONORS AND AWARDS
- Scholar-in-Residence, Indiana University-Purdue University Fort Wayne, June 2005.
- Nominated for Dean's Award for Outstanding Graduate Teaching Assistant, Auburn University College of Science and Mathematics, 2001
- Presidential Graduate Fellowship, Auburn University, 1998 - 2000
- Chancellor's Scholar, School of Sciences, Auburn University Montgomery, 1997
- Nominated by the Auburn University Montgomery Chapter in the National Fellowship Competition of Phi Kappa Phi, 1997
- Vice Chancellor's Scholarship, Auburn University Montgomery, 1993 - 1997
- Dean's List, School of Sciences, Auburn University Montgomery, 1993 - 1997

SERVICE

Departmental Service, Department of Mathematics, University of West Georgia
- Colloquium/Seminar Committee, 2002-2005
- Graduate Committee, 2002-2003, 2004-2005
- Web Site Committee Chair, 2002-2005
- Liaison to Dept. of Computer Science. 2002-2003
- Student/Faculty Activities Committee, 2003-2005, Chair 2004-2005
- Search Committee, 2003-2004
- Freshman Math Committee, 2004-2005
- Webmaster 2002-2004
- Space Committee Chair, 2005
- Math Department Visitation Day Representative, Spring 2005

College Service, College of Arts and Sciences, University of West Georgia
• Faculty Advisory Committee, 2004-2006

Other Service:
• Refereed for Discrete Math, Ars Combinatoria, Integers-Electronic Journal of Combinatorial Number Theory, and Utilitas Mathematica
• Co-hosted Integers Conference 2003
• Co-hosted Integers Conference 2005

PROFESSIONAL MEMBERSHIPS
• Institute of Combinatorics and its Applications, Associate Fellow

COMPUTER SKILLS
• Operating Systems: Linux, MacOS, Solaris, MS-DOS, Windows
• Programming Languages: MAGMA, Perl, C, Ada, Maple, FORTRAN, LaTex, HTML

FUNDED RESEARCH
• NSF Research at Undergraduate Institutions, “Some Graph Decomposition Problems”, $67,260, not funded.
• Indiana University-Purdue University Fort Wayne 2005 Scholar in Residence, June 2005, $500.

NON-TEACHING WORK EXPERIENCE
• Student Assistant, Media Center, Auburn University Montgomery, September 1993 - September 1997, June 1998 - August 1998
• Student Lab Assistant, Sciences Computing Center, Auburn University Montgomery, September 1995 - March 1996.
Dr. Van Minh Nguyen
(Associate Professor)

Academic Achievement
- Doctor of Sciences, Institute of Mathematics, Ukrainian Academy of Sciences, 1993
- PhD, University of Hanoi, 1989
- Diploma (equivalent M.S.), University of Hanoi, 1979

Employment History
- Associate professor, University of West Georgia, Georgia, 2006-present
- Assistant professor, University of West Georgia, Georgia, 2004-2006
- Visiting Associate Professor, James Madison University, Virginia, 2003 – 2004
- Visiting Professor, York University, Toronto, Canada, January 2002-March 2002
- Visiting Associate Professor, The University of Electro Communications, Tokyo, Japan 2000-2001
- Research fellow of the Japan Society for the Promotion of Science, The University of Electro Communications, Tokyo, Japan, 1997-1999
- Visiting professor, Ohio University, Ohio, February 1997-June 1997
- Research fellow of the Alexander von Humboldt Foundation, Universities Augsburg and University of Tubinger, Germany, 1995-1997
- Researcher, Steklov Institute of Mathematics, Russian Academy of Sciences, Moscow, Russia, 1993-1994
- Co-worker, Faculty of Mathematics and Mechanics, Belorussian State University, Minsk, Belorussia (former Soviet Union), 1990-1993
- Assistant and lecturer, University of Hanoi, Hanoi, Vietnam 1980-1989

Current Research Interests
- Semigroups of operators, spectral theory of functions and applications to the study of the asymptotic behavior of solutions of differential equations;
- Infinite dimensional dynamical systems and applications to biology and industry.

Research Awards
- Guest professorship, Beijing Normal University, Beijing, China
- Associate membership of the International Centre for Theoretical Physics (UNESCO), 2001-2006
- Fellowship of the Japan Society for the Promotion of Science, Japan, September 1997- August 1999
- Grant-in-Aid for JSPS Fellows, grant no. 97039, (1998-1999) ($10,000)
- Grant-in-Aid for Scientific Research (C), grant no. 14540158(2002-2003)
- Grant-in-Aid for Scientific Research (C), grant no. 16540141(2004-2006)
- PI of Project # QGTD.03.01 of Vietnam National University ($20,000)

Teaching Experience
- Introductory Calculus, Calculus, Modern Calculus
• Elementary Linear Algebra
• Theory of Ordinary Differential Equations
• Introduction to Functional Differential Equations
• Theory of Stability and Almost Periodicity of Solutions of Differential Equations
• Functional Analysis
• Introduction to Operator Theory
• Introduction to Differentiable Dynamical Systems.

PhD Advisor
• Graduate students: 10
• PhD students:
  o Man M. Nguyen (thesis was defended in 2003)
  o Takeshi Nishikawa (Tokyo, Japan, co-supervisor)

Proficiencies of Foreign Languages
• English, French, Russian: fluently spoken, written
• Japanese, German: spoken.

Other Professional Activities
• I serve as a managing editor of International Journal of Evolution Equations

• I took part and gave talks at the following conferences and workshops:
  o International conference on differential equations, approximation and applications, (Hanoi, 12/2001)
  o Workshop on functional differential equations in the Research Institute for Mathematical Sciences, Kyoto, Japan (11/2000)
  o Workshop on functional differential equations in the Research Institute for Mathematical Sciences, Kyoto, Japan (11/1998)
  o Workshop on functional differential equations in the Research Institute for Mathematical Sciences, Kyoto, Japan (11/1997)
  o The 2nd World Congress of Nonlinear Analysts (Greece, 1996). Colloquium on Differential Equations (Bulgaria, 1991)
  o Colloquium on Qualitative Theory of Differential Equations (Hungary, 1988)
  o Many other colloquia at the departments of mathematics of universities in Japan, Germany, Russia, Taiwan

Publications
I have published one monograph and about 80 publications in refereed international journals and proceedings of conferences. See http://www.westga.edu/~vnguyen for more details.
Dr David Robinson (Assistant Professor)

Academic Achievement
- Ph.D. (1989), Emory University, Atlanta, GA
  Advisor: Dwight Duffus
  Area: Algebra/Combinatorics
  Major: Mathematics

Positions
- Assistant Professor of Mathematics - 15 years:
  o U. of West Georgia, Carrollton, GA, 2004-present
  o Agnes Scott College, Decatur, GA, 1996-99, 2002-04
  o Kennesaw State U., Kennesaw, GA, 2000-01
  o Truett-McConnell College, Cleveland, GA, 1999-2000
  o Guilford College, Greensboro, NC, 1991-96
  o Clemson University, Clemson, SC, 1989-91

- Actuarial Assistant - 2 years:
  o Stanley, Holcombe & Associates, Atlanta, GA, 2001-02
  o Aetna Life & Casualty, Hartford, CT, 1982-83

- Teaching Assistant in Mathematics – 8 years:
  o Emory University, Atlanta, GA, 1983-89
  o The Colorado College, Colo. Spgs., CO, 1980-82

Courses Taught:
Pre-calculus, calculus, statistics, discrete math, history/philosophy of math, linear algebra, abstract algebra, combinatorics, geometry, real analysis, complex analysis, coding theory

Computer Skills
MS Word, MS DOS, MS EXCEL, Geometer's Sketchpad, MATLAB, MAPLE, BASIC and FORTRAN languages, TI graphics calculators

Research Interests
Algebra/Combinatorics: block designs, finite Geometries, error-correcting codes, lattices, tournaments, universal algebra

Number Theory: partitions, generating functions, finite fields, Diophantine equations, continued fractions
Publications & Presentations

- “Every (2, r)-regular graph is regular”, with Abdollah Khodkar and David Leach (University of West Georgia), *Utilitas Mathematica* (2007).

- “Gaussian Polynomials”, presented at University of West Georgia, Discrete Math Seminar, December, 2005.


- “Short course on statistics”, presented in four two-hour sessions at Precision Fabrics Group, High Point, NC, January, 1995


CURRICULUM VITAE

Kwang Cheul Shin

Address: Department of Mathematics
         University of West Georgia
         328 Boyd Building
         Carrollton, GA, 30110, USA
Office Phone: (678) 839-4138
Fax: (678) 839-6490
E-mail: kshin@westga.edu
URL: http://www.westga.edu/~kshin/

FIELDS OF INTEREST

Differential Equations, Spectral Theory, Complex Analysis, Mathematical Physics.

ACADEMIC POSITIONS:

2006-- Assistant Professor, University of West Georgia, Carrollton, Georgia.
2002--2006 Post Doctoral Fellow, University of Missouri, Columbia, Missouri.
1997--1998 Teaching Assistant, Wayne State University.

EDUCATION:

1998--2002 Ph.D., Mathematics, University of Illinois, Urbana-Champaign.
         Advisor: Professor Richard S. Laugesen.
         Thesis: On some Schrödinger eigenvalue problems from mathematical physics.
1996--1998 Graduate program, Mathematics, Wayne State University, Detroit, MI.
         Advisor: Professor Dong-Soo Kim.
         Thesis: Submanifolds with constant mean curvature vector fields.

AWARDS and HONORS:

May 2006    Travel Award for attending "Workshop on Low eigenvalues of Laplace
            and Schrödinger operators", American Institute of Mathematics, Palo Alto.
Mar 2006    Travel Award for attending "Spectral Theory and Mathematical Physics"
Conference in Honor of Barry Simon's 60th Birthday, Pasadena, Calif.

July 2004
Travel Award for attending "Workshop on Spectral Theory of Schrödinger Operators," Montréal, Canada.

2002
University Fellowship, University of Illinois.

2001
Hohn-Nash Award in Mathematics, University of Illinois, which is given "in recognition of outstanding scholarship in applied mathematics."

1999--2001
Summer Research Assistantship, University of Illinois.

1997
Paul Catlin Endowed Mathematics Scholarship, Wayne State University.

PUBLICATIONS and PREPRINTS:


INVITED CONFERENCE TALKS:

Jan. 2006
Special Session on Value Distribution Theory in Classical and p-Adic Function Theory, AMS and MAA Joint Meeting, San Antonio, Texas, Eigenvalues of non-self-adjoint Schrödinger operators with polynomial potentials

Oct. 2004
Special Session on Spectral Problems of Differential Operators, AMS
Sectional Meeting, Evanston, Illinois, Asymptotic expansions of the eigenvalues of anharmonic oscillators.


SEMINAR TALKS:

Feb. 2006  University of West Georgia, Eigenvalues of Schrödinger operators with a polynomial potential: Asymptotics of eigenvalues.

Jan. 2006  PDE Seminar, University of Missouri, Eigenvalues of Schrödinger operators with a polynomial potential: Asymptotics of eigenvalues.


Jun. 2004  Chonnam National University, South Korea, Some Schrödinger eigenvalue problems from mathematical physics.

Jun. 2004  Yonsei University, South Korea, Reality of eigenvalues of some "non-standard" Schrödinger operators

Mar. 2004  Analysis Seminar, Washington University, St. Louis, Missouri, Reality of eigenvalues for certain non-self-adjoint PT-symmetric oscillators.

Sep. 2003  PDE Seminar, University of Missouri, On half-line spectra for a class of non-self-adjoint Hill operators.

May 2003  Applied Mathematics Seminar (Math 488), University of Missouri, Floquet and spectral theory for periodic Schrödinger operators.

Sep. 2002  Analysis Seminar, University of Missouri, On the reality of the eigenvalues for a class of PT-symmetric oscillators.

Nov. 2000  Analysis Seminar, University of Illinois, On the eigenproblems of PT-symmetric oscillators.

TEACHING EXPERIENCE:

2002—2006  Postdoctoral Fellow, Department of Mathematics, University of Missouri, Columbia, Missouri. I have had full responsibility for teaching 2 courses per semester, which include Elementary Differential Equations, Calculus I, II, and III, Discrete Mathematics.
1998—2001 Teaching Assistant, Department of Mathematics, University of Illinois, Urbana-Champaign, Illinois. I have had full responsibility for teaching Calculus for Social Scientists, Small Group Learning Calculus, Calculus II

1997—1998 Teaching Assistant, Department of Mathematics, Wayne State University, Detroit, Michigan. I have had full responsibility for teaching Beginning and Intermediate Algebra.

MEMBERSHIP:

American Mathematical Society, Mathematical Association of America
**Dr Karen Smith**  
*(Associate Professor)*

**Academic Achievement**
- Ph.D., Georgia State University, Major Decision Sciences, 1990.
- M.S., Mathematics, Georgia State University, Major Statistics, 1980;
- M.A., Mathematics, Western Kentucky University, Major Mathematics, 1973;
- B.A., Western Kentucky University, Major Mathematics and English Degree, 1971;

**Appointments**
- Associate Professor of Mathematics, Department of Mathematics, University of West Georgia, 1994-present
- Assistant Professor of Mathematics, Department of Mathematics, University of West Georgia, 1982-1994
- Instructor of Mathematics of Mathematics, Department of Mathematics, University of West Georgia, 1978-1982
- Part-time Instructor, Department of Mathematics, Georgia State University, 1978-1980
- Secondary Mathematics Teacher, Carroll County Schools, Carrollton, Georgia, 1976-1978
- Secondary Mathematics Teacher, Butler County Schools, Morgantown, Kentucky, 1972-1976

**Publications**

**Grants**
- 2003 –2008 Co- PI in a 5 year $877,000 grant funded by the National Science Foundation to generate enthusiasm in mathematics and science (GEMS)
- Participant with 2 faculty from the School of Education in a $2000 grant to conduct a workshop for secondary mathematics teachers on “Technology Uses in the Classroom”

**Presentations**
Presented a paper *Strengthening Linguistic Development Through an Innovative Mathematics Curriculum* with Liane Lyke of the Department of Curriculum and Instruction at the Southeast Regional Meeting of Teachers of English to Speakers of Other Languages Conference  Sept. 2002

**Service**
- Independent Study:
  - Math 4213: 2 students, Summer 2004
- Math 4833: 1 student, Summer 2004
- Math 3063: 2 students, Summer 2003
- Math 5823: 6 students, Summer 2003
- Math 4213: 1 student, Spring 2002
- Math 4813: 1 student, Spring 2002

- Graduate Committees
  - Served on 1 Master of Education Committee Summer 2004
  - Served on 3 Master and 1 Specialist in Education Committees Summer 2003
  - Served on 2 Master of Education Committees 2002
  - Served on 4 Master and 1 Specialist in Education Committees 2001
  - Served on 2 Master of Education Committees
  - Served on 2 Master and 2 Specialist in Education Committees 1999

- Departmental Committees
  - Chair Five Year Review of Mathematics Department Committee 2003
  - Chair Mathematics Department Search Committee 2003 (4 positions)
  - Tenure Committee, 2003-2004
  - Advisory Committee, 2003-2004
  - Various other committees including Statistics committee, Budget committee, Graduate committee, Faculty Evaluation/Teaching Load

- University Committees
  - Learning Resource Committee, 2002-2003
  - Arts and Sciences Executive Committee, 2000-2003
  - Chair Mathematics Department Chair Search Committee, 2000-2001

**Other University Service**
- Advisor of Greek Fraternity Iota Phi Theta, 2002-2003
- Served on 3 post-tenure review committees for Physics Department, 2003-2004
- Representative of Mathematics Department at University Visitation Day, 2003
- Faculty Advisor of University Student Ministry Organization, 2002
- Faculty member of Department of Curriculum and Instruction Advisory Committee, 2001-2004

**Activities**
- Curriculum Development
  - Course proposal for Precalculus accepted as portion of National Science Foundation Grant
- Research and presentation of "A Comparison of Teaching Strategies for Culturally Diverse Students at the Secondary Level with Emphasis on Mathematics" at the Southeast TESOL Conference in Atlanta, September, 2002.
- Service to a local church by providing a forecasted budget for the last 5 years.
- Participant in a two-week science and mathematics project for talented math and science students during the last 3 summers.
- Participant in a week of activities geared toward students at risk during the last 5 summers.
- Judged Advanced Placement Statistics Projects at McIntosh High School Spring 2003
- Consulted with Maplehurst Industries on their sampling plan for quality control 2001-2002
- Consulted with local professional on a traffic study 2001
Scott R. Sykes  
Department of Mathematics  
State University of West Georgia  
Carrollton, GA 30118  
(770) – 836 – 4346  
ssykes@westga.edu

EXPERIENCE:

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Department and Institute</th>
</tr>
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<tbody>
<tr>
<td>August 2004-present</td>
<td>Associate Professor and</td>
<td>Mathematics</td>
</tr>
<tr>
<td></td>
<td>Director of Freshman Mathematics</td>
<td>State University of West Georgia</td>
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<tr>
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<td>Carrollton, GA 30118</td>
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<tr>
<td>August 2002 – May 2004</td>
<td>Associate Professor</td>
<td>Mathematics</td>
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<tr>
<td>September 1997 – May 2002</td>
<td>Assistant Professor</td>
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<td>Carrollton, GA 30118</td>
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<tr>
<td>June 1997 – August 1997</td>
<td>Instructor</td>
<td>SummerMath</td>
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<tr>
<td>June 1996 – August 1996</td>
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<td>Mount Holyoke College</td>
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<td>South Hadley, MA 01075</td>
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<tr>
<td>September 1996 – May 1997</td>
<td>Visiting Assistant Professor</td>
<td>Mathematics and Computer Science</td>
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<td>Amherst College</td>
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<td>Amherst, MA 01001</td>
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<tr>
<td>September 1996 – May 1997</td>
<td>Instructor</td>
<td>Mathematics and Statistics</td>
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<tr>
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<td>University of Massachusetts</td>
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<td></td>
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<td>Amherst, MA 01002</td>
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<tr>
<td>September 1990 – May 1996</td>
<td>Teaching Assistant</td>
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<td>Amherst, MA 01002</td>
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</table>
SERVICE TO THE INSTITUTE:

Committees:
Intercollegiate Athletics Committee, 2006-present
First Year Experience Sub-Committee of the Strategic Enrollment Management Committee, 2005
GEMS Executive Committee, 2005- present
College of Arts and Sciences Tenure Committee, 2004-2006
University Student Organization Judicial Committee, 2002-2004
University Institutional Studies and Planning Committee, 2002-2004
University Parking Appeals Committee, Faculty Representative, 2000-2002
College of Arts and Sciences Faculty Advisory Committee, 2000-2002
Mathematics Department Chair Search Committee, 2000-2001
Mathematics Department Committees:
2006-2007: Freshman Math (Chair), Student/ Faculty Activities,
2005-2006: Statistics Search (Chair), Freshman Math (Chair),
Tenure, Undergraduate Curriculum.
2004-2005: Freshman Math (Chair), Tenure, Undergraduate
Curriculum, Student/Faculty Activities.
2003-2004: Tenure Committee (Chair), Search Committee,
Precalculus (Chair), Undergraduate Curriculum, Student/Faculty
Activities, Post-Tenure Review
2002-2003: Precalculus (Chair), Student and Faculty Activities
(Chair), Faculty Evaluation, Undergraduate Curriculum, Tenure,
Statistics, Scholarship, Post-Tenure Review.
2001-2002: Precalculus (Chair), Student Activities (Chair),
Facilities/ Logistics (Chair), Undergraduate Curriculum,
Recruitment & Public Relations.
2000: Scholarship
Mathematics Department Senior Projects, Spring 2004 (2), Fall 2004 (3), Spring 2005 (2), Spring 2006 (3), Fall 2006 (3), Spring 2007 (2)
Masters of Education Comprehensive Exam Committee, Fall 2003 (1), Summer 2003 (1),
Summer 2002 (1), Fall 2001 (4), Summer 2001 (3),
Spring 2001 (2), Summer 2000 (1)
Mathematics Department Senior Exit Exam Committee, Spring 2001 (4), Fall 2000 (1),
Spring 2000 (1), Spring 1999 (3)

Counseling Experience:
University Faculty Orientation Leader, 2006, 2007
Advisor for undergraduate Mathematics majors.

Adviseement of Student Organizations:
KME (Math Honor Society) Faculty Advisor, 2006
Faculty Advisor to the Math Club, 2000-2005.

Participation in educational activities:
Attended Classroom Assessment of Learning Workshop at Dalton, GA, October 19 and 20, 2000
Member of Project NExT discussion list, Summer 1997 – present
Member ARUME discussion list, Winter 1999 - present
Organized Mathematics Department Faculty Seminar, 1999-2000
Participated in Learning Communities, Spring 2002, Fall 2001, Fall 2000, Spring 2000, Fall 1999
and Winter 1998.

Attended WAC Retreat, September 16, 1999

ACADEMIC ACHIEVEMENT:

<table>
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<tr>
<th>Degree</th>
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<th>Years</th>
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<tr>
<td>M.S.</td>
<td>University of Massachusetts</td>
<td>1990 - 1992</td>
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<tr>
<td>Mathematics</td>
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<tr>
<td>Ph.D.</td>
<td>University of Massachusetts</td>
<td>1992 - 1996</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Advisor: M. K. Bennett</td>
<td></td>
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<tr>
<td></td>
<td>Dissertation: Modern Applications of Lattice Theory</td>
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HONORS:

SUWG Student Government Association's Outstanding Faculty Member for College of Arts and
Sciences, April, 2001.
Awarded Project NExT Fellowship, May, 1997.

PROFESSIONAL GROWTH:

Membership in Professional Societies:
International Quantum Structures Association, 2002
Mathematics Association of America, 1997 - 2003
Association for Research in Undergraduate Mathematics Education (ARUME), 1999 - 2000
American Mathematical Society, 1990 - 1997
Classification Society of North America, 1994

Publications:

Convex Partitions of a Finite Lattice, to appear in *Algebra Universalis*.


Presentations:


Works in Progress:

Orthomodular Core of an Effect Algebra
CURRICULUM VITAE

VU KIM TUAN

Employment:
- 2003 – to date: Professor, Marlon Crider Distinguished Chair of Mathematics, Department of Mathematics, University of West Georgia, Carrollton, GA 30118
- 1999 – 2003: Professor, Department of Mathematics and Computer Science, Faculty of Science, Kuwait University, Kuwait
- 1994 – 1999: Associate Professor, Department of Mathematics and Computer Science, Faculty of Science, Kuwait University, Kuwait
- 1990 – 1994: Alexander von Humboldt Postdoctoral Fellow, Free University of Berlin, Germany
- 1985 – 1988: Postdoctoral Fellow, Belarusian State University, USSR

Education:
- 1987 D.Sc., Belarusian State University, Minsk, Belarus
- 1985 Ph.D., Belarusian State University, Minsk, Belarus
- 1984 M.Sc. with Honor, Belarusian State University, Minsk, Belarus

Plenary and Invited Addresses at International Conferences:
- April, 1987: Cuibusev, Russia
- September, 1990: Hanoi, Vietnam
- June, 1992: Quynhson, Vietnam
- August, 1994: Soa, Bulgaria
- August, 1996: Varna, Bulgaria
- February, 1998: Quezon, Philippines
- May, 1998: Kuwait
- January, 1999: Kiryu, Japan
- July, 1999: Seoul, South Korea
- January, 2001: Amritsar, India
- February, 2001: Minsk, Belarus
- August, 2002: Hanoi, Vietnam
- June, 2005: Quynhson, Vietnam
- September, 2005: Tsakhdzor, Armenia
- June, 2006: Penang, Malaysia
- September, 2006: Minsk, Belarus
- May, 2007: Querétaro, Mexico
Conference Presentations:

- February, 1981 : Minsk, Belarus
- September, 1981 : Leningrad (Saint-Petersburg), Russia
- April, 1982 : Novoxibirck, Russia
- May, 1983 : Varna, Bulgaria
- August, 1990 : Kyoto, Japan
- August, 1993 : Munich, Germany
- August-September, 1993 : Potsdam, Germany
- November, 1993 : Montpellier, France
- May, 1996 : Kuwait
- January, 2000 : Kaoshiung, Taiwan
- January, 2002 : Madeira, Portugal
- March, 2002 : Birmingham, Alabama
- August-September, 2002 : Hong Kong
- March, 2004 : Athens, Ohio
- March, 2005 : Bowling Green, Kentucky
- March-April, 2005 : Birmingham, Alabama
- July, 2005 : Singapore

Seminars and Colloquia:

- March, 1987: Computer Center of USSR Academy of Sciences, Moscow, Russia
  - April, 1987 : Belarusian State University, Minsk, Belarus
  - May, 1987 : Lithuanian Institute of Mathematics and Cybernetics, Vilnius, Lithuania
  - June, 1987 : Voronezh State University, Voronezh, Russia
  - September, 1987 : Steklov Institute of Mathematics, Moscow, Russia

Japan:

- August, 1997 : Wolfram Research, Champaign, Illinois
- July, 1999 : Kyushu University, Fukuoka, Japan
- May, 2002 : University of Bahrain, Bahrain
- September, 2002 : City University of Hong Kong, Hong Kong

Kong:

- April, 2006 : University of Hassan II, Casablanca, Morocco
- May, 2006 : University of Porto, Porto, Portugal
- 2003-2007 : University of West Georgia, Carrollton, Georgia

Visiting Positions:

- Friedrich-Schiller University, 1988, 1993, Jena, Germany
- Belarusian State University, 1990, Minsk, Belarus
- Quynhson College of Education, 1992, Quynhson, Vietnam
- University of Tokyo, 1995, Tokyo, Japan
- Fukuoka University, 1995, 1999, Fukuoka, Japan
- Wolfram Research, Champaign, 1997, Illinois
- Gunma University, 1999 Kiryu, Japan
- City University of Hong Kong, 2002, Hong Kong
- Kuwait University, 2004, Kuwait
- University of Hassan II, 2006, Casablanca, Morocco
- University of Porto, 2006, Porto, Portugal

Fields of Interest: Integral Transforms, Integral Equations, Sturm-Liouville Problems, Inverse and Ill-posed Problems, Special Functions, Orthogonal Polynomials, Fractional Calculus, Numerical Analysis, Sampling Theory, Harmonic Analysis, Entire Functions, Analytic Continuation

  - International Conference on Fourier Analysis and Applications FAA 98, May 1998, Kuwait
  - Workshop on Inverse Problems, February 2004, Carrollton, Georgia
    - Workshop on Sampling, Spectral Theory and Their Applications, April 2005, Carrollton, Georgia
    - Session on Integral Transforms and Applications, ISAAC Congress, July 2005, Catania, Italy
    - International Conference on Analytic Methods of Analytic and Differential Equations, September 2006, Minsk, Belarus

Editor and past Editor:
- International Journal on Nonlinear Mathematical Analysis, 2002
- Journal of Rajasthan Academy of Physical Sciences
- Revista Tecnica de la Facultad de Ingenieria Universidad del Zulia
- Integral Transforms and Special Functions
Harmonic, Wavelet, and p-adic Analysis, World Scientific, 2007
Advances in Deterministic and Stochastic Analysis, World Scientific, 2007

Award: Best Research Award of Faculty of Science, Kuwait University, 1999 2006-2007 Distinguished Scholar, College of Arts and Science, University of West Georgia
Publications More than 110 books and refereed papers.

Five recent publications:


Dr Rui Xu  
(Assistant Professor)

Academic Achievement
- Ph. D in Mathematics, Graph Theory, West Virginia University, Morgantown, WV, May, 2004
- MS in Mathematics, Combinatorial Optimization, Shandong University, China, 1995
- BS in Mathematics, Operational Research, Shandong University, China, 1992

Professional Experience
- Assistant Professor, Dept of Mathematics, University of West Georgia, GA, Fall 2004-present
- Graduate Teaching Assistant, Department of Mathematics, West Virginia University, Morgantown, WV, Fall 2000-Spring 2004
- Assistant Professor, Department of Mathematics, Shandong University, Shandong, China, 1997-2000
- Visiting Research Fellow, Department of Mathematics and Statistics, University College of the Cariboo, Kamloops, Canada, October 1998-December 1998
- Lecturer, Department of Mathematics, Shandong University, Shandong, China, 1995-1997

Awards and Honors
- Outstanding Graduate Teaching Assistant for Eberly College of Arts and Sciences, 2002-2003, West Virginia University
- The HERF Supplemental Teaching Fellowships for excellent teaching assistants, 2002-2003, West Virginia University
- The HERF Supplemental Teaching Fellowships for excellent teaching assistants, 2003-2004, West Virginia University
- The Summer Research Fellowship, 2003, West Virginia University
- The William E. Vehse Endowment for Graduate Student Travel, 2003, West Virginia University

Research Interests
Graph Theory and combinatorics, discrete optimization, operations research and mathematical programming, especially in the areas of integer flows and cycle double covers of graphs, graph factors, and graph coloring problems.

Recent Papers
- "Realizing degree sequences with A-connected graphs", in preparation.
- "Graph decomposition problems", in preparation.
- "On Potentially W4- graphic Sequences", completed.
- "On 2-factors in bipartite graphs", completed.
- "Group connectivity of graphs satisfying Ore-condition", submitted.
- "Realizing degree sequences with graphs having nowhere-zero 3-flows", submitted.
• "Contractible configuration, Z3-connectivity, Z3-flow and triangularly connected graphs," submitted
• "On group connectivity of graphs" submitted.
• "Note on collapsible biclaw-free graphs", submitted.
• "Note on cycle double covers of graphs", submitted

Publications
• Xu, R., Note on acyclic colorings of graphs, Ars Combinatoria 72 (2004), 235-339.
• Xu, R. and Yu, Q. L., Some conditions for graphs to be k-extendable, Congressus Numerantium 163 (2003), 189-195.
• Xu, R., A sufficient condition for graphs to have 2-connected [2, 4]-factors, Advances in Mathematics (China) 26 (1997), no. 4: 379-380.
• Xu, R., [a, b]-factors in K1,n-free graphs, Shandong Daxue Xuebao Ziran Kexue Ban 31 (1996), no. 2: 173-177.
• Xu, R., A lower bound on the connectivities of adjacent tree graphs, Pure and Applied Mathematics 10 (1994), Special Issue: 168-173.

Professional Memberships
• Mathematical Association of America (MAA)
Mohammad A. Yazdani, D.

P.O. Box 1631 Carrollton, GA 30112
E-mail: myazdani@westga.edu

Phone Numbers,
Home: (770) 836 – 0924
Work: (678) 839 – 4132

Education:
- Doctor of Philosophy, Science and Mathematics Education (Mathematics), Southern University and A&M College (SUBR), Baton Rouge, Louisiana (2001).
- Master Equivalent in Mathematics, Master of Education, Bachelor of Science in Mechanical Engineering, SUBR, Baton Rouge, Louisiana.

Certification: Louisiana Teaching Certificate in Mathematics and Physics.

Academic Experience, Full Time:
- Assistant Professor, Department of Mathematics, University of West Georgia, Carrollton, Georgia, (2006 – Present). Subject assignments are Foundations of Number Systems, Algebra for P-8 Teachers, Trigonometry and Calculus for P-8 Teachers, and Trigonometry and Analytic geometry.
- Assistant Professor, Department of Computing and Mathematical Sciences, Texas A&M University - Corpus Christi, Texas, (2005 – 2006). Subject assignments included Fundamentals of Mathematics (Mathematics for Elementary School Teachers I, II, III), Basic Mathematics from an Advanced Viewpoint (capstone course for students pursuing grades 4 – 8 certification in mathematics).

Academic Experience, Part Time:
- Mathematics Instructor, The Southern University Upward Bound Trio Programs, SUBR, Baton Rouge, Louisiana (2002 – 2003), Upward Bound is a project to assist first generation college bound high school students from low income families who have the potential but require additional academic skills or motivation to undertake post-secondary education successfully.
- Mathematics and Physics Instructor, Timbuktu Academy, SUBR, Baton Rouge, Louisiana (1999-2001). The overall goal of Timbuktu Academy is to increase the participation and success rates of underrepresented minority students in mathematics and science.
• Mathematics Instructor, LSYOU Project, Louisiana State University, Baton Rouge, Louisiana (1997-1998). LSYOU is an intervention program for at-risk high school students.

Presentation (Selected):


• Co-Presenter, Correlation between Students' Level of Understanding Geometry According to the van Hiele's Model and Students' Achievement in Plane Geometry, with Drs. Olga Ramirez and John Bernard, 13th Annual South Texas Mathematics Consortium, Harlingen, TX, (February 2005).

• Co-presenter, A CAR! Geometry II Learning Environment and the teaching of Euclidean Construction, with Drs. Olga Ramirez and John Bernard, RGVCTM, Edinburg, TX, (November 2004).


• Presenter, The Applications of Quadratic Functions in Architectural Design, Woodbury University, Burbank, CA, (December 2003).

• Presenter, Modeling With Systems of Linear Equations in Solving Word Problems, Louisiana State University, Alexandria, LA, (February 2003).

• Speaker, Geometry Education, Department of Science / Mathematics Education, SULR, (September 2002).

• Speaker, Topics in Linear Algebra, LeRoy R. Posey Seminar, Department of Mathematics, SUBR (November 1999).

Research and Publications (Selected):

• Author of an article titled Exploring the Creation of Mathematical Fractal Utilizing Euclidian Construction in a Pre-Service Teacher Environment: A New Perspective to Integrate Contemporary Mathematics into School Curriculum. This paper has been published by the Society for Information Technology & Teacher Education, SITE (March 2007).

• Author of an article titled A Dynamic Geometry Enriched Approach to Solve First and Second Order Polynomial Equations in a Single Variable. This paper has been published by the Society for Information Technology & Teacher Education, SITE (March 2007).
APPENDIX E
DEGREE REQUIREMENTS

Teaching Option

A candidate for the M.S. degree with Concentration in Teaching must complete a minimum of 36 semester hours of graduate work approved by the Department graduate committee. These include:

**Required Courses** (21 semester hours)
**Electives:** (15 semester hours)

**Comprehensive Examination**
Each candidate for the Concentration in Teaching must perform satisfactorily on a final comprehensive examination.

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<th>Courses</th>
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<tr>
<td>1. MATH 6713 Strategies for Teaching Mathematics</td>
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<td>2. MATH 6723 Assessment and Classroom Management in Mathematics Education</td>
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<td>3. MATH 6733 Research in Mathematics Education</td>
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**Mathematics Courses**

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<tr>
<td>4. MATH 6743 Advanced Perspectives on Secondary Mathematics</td>
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<td>5. MATH 6253 Mathematical Analysis I</td>
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<td>6. MATH 6263 Mathematical Analysis II</td>
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<td>7. MATH 6233 Geometry</td>
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<td>8. MATH 6513 Applied Linear Algebra</td>
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**Electives (Choose 5)**

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<td>MATH 6043 Theory of Numbers</td>
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<tr>
<td>MATH 6203 Applied Probability</td>
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<tr>
<td>MATH 6213 Statistical Methods</td>
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<tr>
<td>MATH 6413 Advanced Modern Algebra I</td>
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<tr>
<td>MATH 6423 Advanced Modern Algebra II</td>
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<tr>
<td>MATH 6473 Combinatorial Analysis</td>
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<tr>
<td>MATH 6483 Theory of Graphs</td>
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**Total Program**

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<td>36</td>
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Applied Mathematics Option

A candidate for the M.S. degree with Concentration in Applied Mathematics must complete a minimum of 36 semester hours of graduate work approved by the Department graduate committee. These include:

**Required Courses (24 semester hours)**

**Electives:** (9 semester hours)

**Research Project (3)**

All candidates for the Concentration in Applied Mathematics are required to complete an independent project under the supervision of a member of the graduate faculty. The project could involve a specific application to a concrete problem of techniques identified in the literature or studied in other courses.

**Comprehensive Examination**

Each candidate for the Concentration in Applied Mathematics must perform satisfactorily on a final comprehensive examination.

<table>
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<th>Mathematics Courses</th>
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<tr>
<td>1. MATH 6253 Mathematical Analysis I</td>
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<tr>
<td>2. MATH 6263 Mathematical Analysis II</td>
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<td>3. MATH 6203 Applied Probability</td>
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<tr>
<td>4. MATH 6213 Statistical Methods</td>
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<tr>
<td>5. MATH 6513 Applied Linear Algebra</td>
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<tr>
<td>6. MATH 6503 Numerical Methods in Applied Mathematics</td>
<td>3</td>
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<tr>
<td>7. MATH 6363 Theory of Partial Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>8. MATH 6003 Dynamical Systems and Applications</td>
<td>3</td>
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<tr>
<td>9. MATH 6733 Research Project</td>
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**Electives (Choose one course and one sequence)**

- MATH 6103 Discrete Optimization
- MATH 6303 Introduction to Mathematical Control Theory
- MATH/BIOL 6903 BioMathematics (jointly with Biology Dept)
- **Sequence I:** MATH 6473 Combinatorial Analysis and MATH 6483 Theory of Graphs
- **Sequence II:** MATH 6403 Signal processing and MATH 6613 Inverse Problems

**Total Program** 36
APPENDIX F

Master of Science in Mathematics
Teaching Option

Program Courses

MATH 6713 – Strategies for Teaching Mathematics
Credits: 3.00

NCATE/NCTM: Standards: 3, 6, 7, 8

MATH 6723 – Assessment and Classroom Management in Mathematics Education
Credits: 3.00

NCATE/NCTM: Standards: 3, 7

MATH 6733 – Research in Mathematics Education
Credits: 3.00

NCATE/NCTM: Standards: 3, 8

MATH 6743 – Advanced Perspectives on Secondary Mathematics
Credits: 3.00

NCATE/NCTM: Standards: 1, 2, 3, 4, 5, 8, 9, 10, 12, 13

MATH 6043 – Theory of Numbers
Credits: 3.00

NCATE/NCTM: Standards: 2, 3, 9, 13

MATH 6203 – Applied Probability
Credits: 3.00

NCATE/NCTM: Standards: 3, 5, 14

MATH 6213 – Statistical Methods
Credits: 3.00

NCATE/NCTM: Standards: 3, 5, 14

MATH 6233 – Geometry
Credits: 3.00

NCATE/NCTM: Standards: 2, 3, 11
MATH 6253 – Mathematical Analysis I  
Credits: 3.00

NCATE/NCTM: Standards: 2, 3, 12

MATH 6263 – Mathematical Analysis II  
Credits: 3.00

NCATE/NCTM: Standards: 2, 3, 12

MATH 6413 – Advanced Modern Algebra I  
Credits: 3.00

NCATE/NCTM: Standards: 2, 3, 10

MATH 6423 – Advanced Modern Algebra II  
Credits: 3.00

NCATE/NCTM: Standards: 2, 3, 10

MATH 6473 – Combinatorial Analysis  
Credits: 3.00

NCATE/NCTM: Standards: 2, 3, 13

MATH 6483 – Theory of Graphs  
Credits: 3.00

NCATE/NCTM: Standards: 2, 3, 13

MATH 6513 – Applied Linear Algebra  
Credits: 3.00

NCATE/NCTM: Standards: 2, 3, 9
Course or Program Addition, Deletion or Modification Request

Department: Mathematics  
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

<table>
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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate  ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s)  Math 3303 or Math 2654

Present or Projected Enrollment: (Students per year)
*For a new course, one full term must pass between approval and effective date.

Grading System: ☑ Letter Grade  ☐ Pass/Fail  ☐ Other

Effective Date*: Fall 2008

Approval:

Department Chair  Date  Department Chair (if cross listed)  Date

Dean of College  Date  Dean of College (if cross listed)  Date

Chair of TEAC (if teacher prep. program)  Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit)

Chair, Undergraduate Academic Programs Committee  Date  Chair, Committee on Graduate Studies  Date

Vice President for Academic Affairs  Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6003
Course Title: Dynamical Systems and Applications
Prerequisite: Ordinary Differential equations (Math 3303), or Calculus III (Math 2654)

Topics include:
- Linear dynamical systems, stability of linear systems
- Generation of dynamical systems by systems of ODE
- Local theory of nonlinear dynamical systems
- Bifurcation theory
- Applications

Learning Outcomes:
It is expected that the student who completes this course will:
- Be able to comprehend the basic concept of linear dynamical systems, its stability theory
- Be able to understand and apply the conditions for the generation of a dynamical systems by an ordinary differential equation to study the problems arising from the real world
- Be able to understand and apply the concepts of stability, instability and the procedure of linearization at equilibria
- Be able to understand the bifurcation phenomena when there is a loss of stability
- Be able to understand simple applications of dynamical systems to Physics, Biology, Chemistry and Engineering

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix Math Course 6043 Title Topics in Number Theory

Action

☑ Course  □ Program
☑ Modify  ☐ Add  ☐ Delete
☐ Credit
☐ Number
☐ Title
☐ Description
☐ Other

Credit

☐ Undergraduate
☑ Graduate
☐ Other*

*Variable credit must be explained

Frequency

☐ Every Term
☐ Yearly
☑ Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate  ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Math 6043 Topics in Number Theory

Hours: Lecture/Lab/Total

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 3413 or equivalent

Present or Projected Enrollment: (Students per year)

Effective Date*: Fall / 2008 Term/Year

*For a new course, one full term must pass between approval and effective date.

Grading System:
☑ Letter Grade  ☐ Pass/Fail  ☐ Other

Approval:

Department Chair  (if cross listed)

Dean of College  (if cross listed)

Chair of TEAC (if teacher prep. program)

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures for proposals under graduate and graduate credit)

Chair, Undergraduate Academic Programs Committee

Chair, Committee on Graduate Studies

Vice President for Academic Affairs

Revised 1/09/02
Course Syllabus

Course Number: MATH 6043  
Course Title: Topics in Number Theory  
Credit Hours: 3  
Instructor: staff (graduate faculty member)  
Prerequisite: MATH 3413 or equivalent  

Topics:  
1. Divisibility  
2. Congruences  
3. Quadratic Reciprocity and Quadratic forms  
4. Number Theory Functions  
5. Diophantine Equations  
6. Farey Fractions and Irrational Numbers  
7. Continued Fractions  
8. Primes and Multiplicative Number Theory  
9. The Partition Function

Learning outcomes:  
It is expected that the student who completes this course will have acquired:  
5. A basic knowledge of the notion of congruences, and familiarity with the methods of solving linear and quadratic congruences  
6. An understanding of the statements of the following theorems, and the ability to apply them to a variety of problems: Fermat's Theorem, Lagrange's theorem, Wilson's theorem, the law of quadratic reciprocity, the Chinese Remainder Theorem.  
7. A solid understanding of the various methods of mathematical proofs. The student will demonstrate this understanding by applying these methods to prove appropriate number theoretical theorems and/or facts.  
8. An improvement in his or her ability to read and comprehend mathematical statements and proofs. This will be measured by having the student independently read passages and proofs containing mathematical language, in the text and in assignments, and then use these statements to draw further logical conclusions or complete mathematical proofs.  
9. An understanding of the frequency of the prime numbers via the prime number theorem and its corollaries. Such understanding will be demonstrated via solving problems involving limit theorems concerning the set of prime numbers.  
10. A familiarity with the fundamental theory of partitions, as demonstrated by the use of such methods as generating functions and Ferrer's graphs to establish classical identities

Grading Methods: In-class tests, take-home tests, final exam, homework, projects, as determined by instructor.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix Math Course Title Discrete Optimization

Action
- [ ] Course
- [ ] Program
- [ ] Modify
- [ ] Credit
- [ ] Add
- [ ] Delete
- [ ] Number
- [ ] Title
- [ ] Description
- [ ] Other

Credit
- [ ] Undergraduate
- [ ] Graduate
- [ ] Other*

*Variable credit must be explained

Frequency
- [ ] Every Term
- [ ] Yearly
- [ ] Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- [ ] Library resources are adequate
- [ ] Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Prefix Math Course Title Discrete Optimization

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 2853, Math 4483

Present or Projected Enrollment: (Students per year)

Effective Date*: Fall 2008

Term/Year

Grading System:
- [ ] Letter Grade
- [ ] Pass/Fail
- [ ] Other

Approval:

Department Chair

Date 6-15-07

Department Chair (if cross listed)

Date 7-2-07

Dean of College

Date

Dean of College (if cross listed)

Date

Chair of TEAC (if teacher prep. program)

Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chair to six copies with signature for proposals carrying undergraduate credit only and seven copies with signature carrying both undergraduate and graduate credit.

Chair, Undergraduate Academic Programs Committee

Date

Chair, Committee on Graduate Studies

Date

Vice President for Academic Affairs

Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6103  
Course Title: Discrete Optimization  
Prerequisite: MATH 2853, MATH 4483  
Topics:  
- Discrete optimization problems (traveling salesman, minimal spanning tree, linear programming, scheduling, etc.)  
- Simplex algorithm,  
- Primal-dual algorithms,  
- Complexity,  
- Matching and weighted matching,  
- Spanning trees,  
- Matroid theory,  
- Integer linear programming,  
- Approximation algorithms,  
- Branch-and-bound,  
- Local search and polyhedral theory

Learning Outcomes:  
It is expected that upon completion of this course, the student will

- Have a rich knowledge of the basic concepts and definitions of discrete optimization,  
- Have a thorough understanding of simplex algorithm, primal-dual algorithms and their applications,  
- Be able to determine the complexity of different algorithms,  
- Have a rich knowledge of matchings, weighted matchings and spanning trees,  
- Be familiar with matroid theory,  
- Have a thorough understanding of integer linear programming, approximation algorithms and their applications,  
- Be familiar with Branch-and-bound, local search and polyhedral theory

Grading Procedure:  
Tests: There will be two in-class tests.  
Assignments: There will be eight assignments that will be turned in and graded. You must complete these assignments on your own.  
Homework: Homework will be assigned from almost all sections covered. Homework is not collected, but should be completed before the next class meeting.  
Final Exam: The final exam will be comprehensive.

The grade is determined as follows:  
- 45% Tests  
- 30% Assignments  
- 25% Final Exam
# Course or Program Addition, Deletion or Modification Request

### Department: Mathematics  
### College: College of Arts & Sciences

#### Current course catalog listing: (for modifications or deletions)

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- **Action**: Modify, Add, Delete
- **Credit**: Undergraduate, Graduate, Other
- **Frequency**: Every Term, Yearly, Other

- **Rationale**: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- **Library resources are adequate**
- **Library resources need enhancement**

#### Proposed Course Catalog Listing: (For new courses or for modification)

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**Catalog Description**: (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

- **Prerequisite(s)**: Math 1634, Math 2036 or an equivalent

#### Present or Projected Enrollment: (Students per year)

- **Effective Date**: Fall 2008

- **Grading System**: Letter Grade, Pass/Fail, Other

#### Approval:

- **Department Chair**: Date
- **Dean of College**: Date

- **Chair of TEAC (if teacher prep. program)**: Date

#### Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit.)

- **Chair, Undergraduate Academic Programs Committee**: Date
- **Chair, Committee on Graduate Studies**: Date

- **Vice President for Academic Affairs**: Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6203
Course Title: Applied Probability

Credit Hours: 3
Prerequisite Math 1634, Math 2063 or an equivalent

Topics:
1. Probability counting methods
2. Discrete random variables and their distributions
3. Continuous random variables and their distributions
4. Expected value
5. Sampling distributions
6. Central Limit Theorem
7. Normal approximation to the Binomial

Learning Outcomes
It is expected that a student who completes this course will have acquired the ability to:
1. Recognize and describe discrete and continuous random variables
2. Find probabilities associated with discrete and continuous random variables
3. Use the notation and the language associated with probability
4. Use basic rules of probability
5. Use expected value to find the mean and variance of discrete and continuous random variables
6. Understand the interplay of probability and statistical inference
7. Apply the Central Limit Theorem

Grading Procedure
Three exams over appropriate material
A project consisting of assigned problem sets throughout the course
A comprehensive final exam

The grade in the course will be determined as follows
3 exams 60%
Project 20%
Final 20%
Course or Program Addition, Deletion or Modification Request

Department: Mathematics  College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix Math Course 6213 Title Statistical Methods

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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

✔ Library resources are adequate  □ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 2853

Present or Projected Enrollment: (Students per year)  Effective Date*: Fall / 2008

*For a new course, one fall term must pass between approval and effective date.

Grading System: ✔ Letter Grade  □ Pass/Fail  □ Other

Approval:

Department Chair: Date  Department Chair (if cross listed) Date

Dean of College: Date  Dean of College (if cross listed) Date

Chair of TEAC (if teacher prep. program) Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signature carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee: Date  Chair, Committee on Graduate Studies: Date

Vice President for Academic Affairs: Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6213
Course Title: Statistical Methods
Wackerly, and R. Scheaffer, Duxbury Press (2001)
Prerequisite: Elementary Linear Algebra (Math 2853)

Topics include:
- Estimation
- Confidence intervals
- Hypothesis tests
- Nonparametric tests
- Analysis of Variance
- Regression

Learning Outcomes: It is expected that a student who completes this course will have acquired the ability to:
- Find and interpret interval estimates
- Test hypotheses about parameters
- Use p values
- Use the Z, t, F, and chi-Square distributions in hypothesis tests
- Find and analyze linear regression models
- Make inferences about a parameter using information from a sample
- Use the analysis of variance procedure
- Analyze count data
- Apply nonparametric tests

Grading Procedures
Exams 3 exams will be given throughout the semester
Project There will be a project consisting of different problem sets assigned throughout the semester.
Final A comprehensive final will be given
The grade in the course will be determined as follows:
- 3 exams 60%
- Project 20%
- Final 20%
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

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*Variable credit must be explained

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate
☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 3003

Present or Projected Enrollment: (Students per year) Effective Date*: Fall / 2008

Grading System: ☑ Letter Grade ☐ Pass/Fail ☐ Other

Approval: 10-15-07

Department Chair: 7-2-07

Dean of College: 7-2-07

Chair of TEAC (if teacher prep. program) Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee: 9/1/07

Chair, Committee on Graduate Studies: Date

Vice President for Academic Affairs: Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6233  
Course Title: Geometry  
Prerequisite: MATH 3003

Topics:
1. Preliminaries (1.1-1.6)  
2. Affine and projective planes (2.1-3.7)  
3. Affine and projective planes over fields (4.1-5.8)  
4. Affine and projective spaces (6.1-7.5)  
5. Closure spaces (8.1-8.5)

Learning Outcomes: 
It is expected that upon completion of this course, the student will

1. Know the statements and understand the proofs of Desargue's Theorem and Pappus's Theorem.  
2. Be able to perform arithmetic operations in finite fields.  
3. Have a thorough knowledge of affine and projective planes, and their relationship with each other.  
4. Understand the relationship between Latin Squares and affine planes.  
5. Be familiar with the properties of affine and projective spaces.  
6. Have a basic knowledge of the properties of closure spaces.

Grading Procedure:
Tests: There will be two in-class tests.  
Assignments: There will be eight assignments that will be turned in and graded. You must complete these assignments on your own.  
Homework: Homework will be assigned from almost all sections covered. Homework is not collected, but should be completed before the next class meeting.  
Final Exam: The final exam will be comprehensive.

The grade is determined as follows:  
- 45% Tests  
- 30% Assignments  
- 25% Final Exam
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix Math  Course 6253  Title Mathematical Analysis I

Action
☑ Course  ☐ Program
☐ Modify  ☑ Add  ☐ Delete
☐ Credit
☐ Number
☐ Title
☐ Description
☐ Other

Credit
☐ Undergraduate
☑ Graduate
☐ Other*
*Variable credit must be explained

Frequency
☐ Every Term
☐ Yearly
☑ Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate  ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Math 6253  Title Mathematical Analysis I

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 3003

Present or Projected Enrollment: (Students per year) 
Effective Date*: Fall / 2008

Grading System: ☑ Letter Grade  ☐ Pass/Fail  ☐ Other

Approval:

Department Chair  Date  Department Chair (if cross listed)  Date

Dean of College  Date  Dean of College (if cross listed)  Date

Chair of TEAC (if teacher prep. program)  Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee  Date  Chair, Committee on Graduate Studies  Date

Vice President for Academic Affairs  Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6253
Course Title: Mathematical Analysis I
Prerequisite: MATH 3003

Topics include:

1- The Real and Complex Number Systems
2- Basic Topological Properties
3- Numerical Sequences and Series
4- Continuity of Functions
5- The Riemann-Stieltjes Integral
6- Sequences and Series of Functions
7- The Lebesgue Theory

Learning Outcomes:

It is expected that the student who completes this course will:

1- Be able to apply the completeness of the real and complex number system and Euclidean spaces to study the continuity, differentiability and other properties of functions
2- Demonstrate his or her knowledge on basic topological properties of metric spaces by applying them to study the convergence of sequences, the continuity of functions
3- Be able to use basic techniques in solving problems involving numerical series
4- Understand and be able to use basic properties of continuous functions in problem solving
5- Understand and be able to apply the concepts of Riemann-Stieltjes integral
6- Improve his or her ability to read and comprehend mathematical statements and proofs using the uniform convergence, the Arzela-Ascoli Theorem and the Stone-Weierstrass Theorem
7- Be able to comprehend mathematical statements and proofs using the Lebesgue measure, measure spaces, the Lebesgue integral.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.

The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics  
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix: Math  Course: 6263  Title: Mathematical Analysis II

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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

✓ Library resources are adequate  ❌ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Prefix: Math  Course: 6263  Title: Mathematical Analysis II

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s): Math 6253

Present or Projected Enrollment:  (Students per year)

Effective Date*: Fall 2008

Grading System: ✓ Letter Grade  ❌ Pass/Fail  ❌ Other

Approval:

[Signature]  6-15-07  
[Signature]  7-2-07

Presented by College Dean to Undergraduate Academic Programs Chair and for Committee on Graduate Studies Chairman. Six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit.

Chair, Undergraduate Academic Programs Committee:  Date:

Chair, Committee on Graduate Studies:  Date:

Vice President for Academic Affairs:  Date:

Revised 1/09/02
Course Syllabus

Course Number: MATH 6263
Course Title: Mathematical Analysis II
Prerequisite: MATH 6253

Topics include:
1- Metric Spaces
2- Topological Spaces
3- Compact Spaces
4- Banach Spaces
5- Measure and Integration
6- Measure and Outer Measure
7- The Daniell Integral
8- Measure and Topology

Learning Outcomes:
It is expected that the student who completes this course will:
1- Be able to comprehend and apply the basic properties of metric, topological, Banach spaces to prove theorems, to solve problems concerning the general theory of measure and integration
2- Improve his or her knowledge on abstract measure and integration, be able to comprehend mathematical statements and proofs involving the spaces of integrable functions
3- Be able to understand an abstract introduction to integration (the Daniell integral)
4- Be able to understand the connection between the measure and the topological structure on measure spaces via the concepts of Baire sets, Borel sets, Baire measures and the Riesz representation theorem of bounded linear functional.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
# Course or Program Addition, Deletion or Modification Request

**Department:** Mathematics  
**College:** College of Arts & Sciences

**Current course catalog listing:** (for modifications or deletions)

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- **Rationale:** To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.
- **Library resources are adequate**

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## Proposed Course Catalog Listing: (For new courses or for modification)

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<th>Hours</th>
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<th>Credit</th>
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- **Catalog Description:** New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies.

**Prerequisite(s):** Math 2654, Math 2853

**Present or Projected Enrollment:** (Students per year)  
*For a new course, one full term must pass between approval and effective date.

**Grading System:** ✅ Letter Grade  ❌ Pass/Fail  ❌ Other

**Approval:**

[Signature]

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**Chair of TEAC (if teacher prep. program):**  
**Date**

**Final Approval:** Submitted by College Dean to Undergraduate Academic Programs Chair; or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signature carrying both undergraduate and graduate credit)

<table>
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<th>Date</th>
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**Vice President for Academic Affairs:**  
**Date**

Revised 1/09/02
Course Syllabus

Course Number: MATH 6303
Course Title: Introduction to Mathematical Control Theory
Prerequisite: MATH 2654, MATH 2853

Topics include:
- Discrete-time and continuous-time systems
- Reachability and controllability
- Feedback and stabilization
- Outputs

Learning Outcomes:
It is expected that the student who completes this course will:
5- Be able to comprehend the basic concepts of systems such as discrete-time and continuous-time systems
6- Be able to understand and apply the controllability of pairs of matrices in time-invariant linear systems, bounded controls and piecewise constant controls
7- Be able to understand and apply the concept of feedback control and Lyapunov stability to the stabilization problem of a system
8- Be able to understand and apply the method of linearization to the study of the observability of linear time-invariant systems

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics

College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix Math  Course 6363  Title Theory of Partial Differential Equations

Action

☑ Course  □ Program

☑ Modify  □ Add  □ Delete

□ Credit  □ Number  □ Title  □ Description  □ Other

Credit

☑ Undergraduate

☑ Graduate

□ Other*

*Variable credit must be explained

Frequency

□ Every Term

□ Yearly

☑ Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate  □ Library resources need enhancement

Proposed Course Catalog Listing: (for new courses or for modification)

Prefix  Course  Title Theory of Partial Differential Equations

Math  6363

3 / 0 / 3  Hours: Lecture/Lab/Total

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 3303, Math 3243

Present or Projected Enrollment: (Students per year) Effective Date*: Fall 2008

☑ Letter Grade  □ Pass/Fail  □ Other

Grading System:

Approval:

Department Chair  6-15-07

Dean of College  7-2-07

Chair of TEAC (if teacher prep. program)  Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee  Date

Chair, Committee on Graduate Studies  Date

Vice President for Academic Affairs  Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6363
Course Title: Theory of Partial Differential Equations
Prerequisite: MATH 3303, MATH 3243

Topics include:
- Well-posed problems, regularity, asymptotics, maximum principles.
- Linear equations: Transport equation, Laplace's equation, heat equation, wave equation, energy methods, separation of variables, transform methods, power series, fundamental solutions, Green's functions.
- Nonlinear 1st order equations: complete integrals, envelopes, characteristics, conservation laws.
- Linear evolution equations, second order elliptic equations.

Learning Outcomes:
It is expected that the student who completes this course will:
- Be able to classify PDEs according to type and linearity.
- Be able to solve linear PDEs using methods such as separation of variables, fundamental solutions, power series, Green's functions, and transform methods.
- Be able to understand basic existence and regularity theory for linear PDEs.
- Be able to solve nonlinear 1st order PDEs using the method of characteristics.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.

The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

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*Variable credit must be explained

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 3243

Present or Projected Enrollment: (Students per year)

Effective Date*: Fall / 2008

Term/Year

Grading System: ☑ Letter Grade □ Pass/Fail □ Other

Approval:

Date: 10-15-07

Department Chair

Date: 7-2-07

Department Chair (if cross listed)

Dean of College

Date: 

Dean of College (if cross listed)

Chair of TEAC (if teacher prep. program)

Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee

Date

Chair, Committee on Graduate Studies

Date

Vice President for Academic Affairs

Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6403
Course Title: Signal Processing
Textbook:
Prerequisite: MATH 3243

Topics include:
- Fourier Transforms
- Fourier Series
- Fast Fourier Transforms FFT
- Filtering
- Sampling
- Digital Signal Processing

Learning Outcomes:
It is expected that the student who completes this course will:
- Be able to comprehend the basic properties of the Fourier transforms, Fourier series, and FFT in L1 and L2 spaces
- Be able to apply the Fourier transforms, Fourier series, and FFT in signal analysis.
- Be able to understand mathematical principles of signal processing: Impulse and Frequency Responses, Matching and Filtering, Band-limited and Band-pass Signals, Shannon Sampling Formula, Reconstruction and Aliasing, Analysis and Synthesis

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be take-home assignments, which will be graded.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 60%; Projects: 10%; Final Exam: 30%.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix: Math 6413 Course: Advanced Modern Algebra I

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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate
☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Math 6413 Advanced Modern Algebra I

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 3413 or equivalent

Present or Projected Enrollment: (Students per year)

Effective Date*: Fall 2008

*For a new course, one full term must pass between approval and effective date.

Grading System: ☑ Letter Grade ☐ Pass/Fail ☐ Other

Approval:

Signature: [Signature]
Date: 6-15-07

Department Chair
Date: 7-2-07

Dean of College (if cross listed)
Date: [Signature]
Date: 7-2-07

Chair of TRAC (if teacher prep. program)
Date: [Signature]
Date: 9/1/07

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signature carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee
Date: [Signature]
Date: 9/1/07

Chair, Committee on Graduate Studies
Date: [Signature]
Date: 9/1/07

Vice President for Academic Affairs
Date: [Signature]
Date: [Signature]

Revised 1/09/02
Course Syllabus

Course Number: MATH 6413
Course Title: Advanced Modern Algebra I
Credit Hours: 3
Instructor: staff (graduate faculty member)
Prerequisite: MATH 3413 or equivalent
Textbook: Abstract Algebra, 3rd Edition
          by D. Dummit and R. Foote, Wiley

Topics:
- Introduction to Groups.
- Subgroups.
- Quotient Group and Homomorphisms.
- Group Actions.
- Direct and Semidirect Products and Abelian Groups.
- Further Topics in Group Theory.

Learning outcomes:
It is expected that the student who completes this course will have acquired:
1. A basic familiarity with groups including both finite and infinite examples.
2. An understanding of the statements of the following theorems, and the ability to
   apply them to a variety of problems: Fundamental theorem of finitely generated
   abelian groups, the Jordan-Holder theorem, the Sylow theorems.
3. An enhanced understanding of the various techniques of mathematical proof. The
   student will demonstrate this understanding by applying these methods to prove a
   variety of facts about finite groups and infinite groups.
4. The ability to draw lattice diagrams illustrating the complete subgroup structure
   of a finite group.

Grading Methods: In-class tests, take-home tests, final exam, homework, projects, as
determined by instructor.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics  College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix Math  Course 6423  Title Advanced Modern Algebra II  3/0/3

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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

✓ Library resources are adequate  □ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Math 6423 Advanced Modern Algebra II  3/0/3

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For SXXXX/4XXXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s)  Math 6413 or equivalent

Present or Projected Enrollment:  (Students per year)  Effective Date*: Fall 2008

Term/Year

*For a new course, one full term must pass between approval and effective date.

Grading System:  ✓ Letter Grade  □ Pass/Fail  □ Other

Approval:

[Signatures and dates]

Chair of TEAC (if teacher prep. program)  Date

Final Approval:  Submitted by College Dean to Undergraduate Academic Programs Chair; for Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit)

Chair, Undergraduate Academic Programs Committee  Date

Chair, Committee on Graduate Studies  Date

Vice President for Academic Affairs  Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6423
Course Title: Advanced Modern Algebra II
Credit Hours: 3
Instructor: staff (graduate faculty member)
Prerequisite: MATH 6413 or equivalent
Textbook: Abstract Algebra, 3rd Edition
by D. Dummit and R. Foote, Wiley

Topics:
- Introduction to Rings.
- Euclidean Domains, Principal Ideal Domains and Unique Factorization Domains.
- Polynomial Rings.
- Field Theory.
- Galois Theory

Learning outcomes:
It is expected that the student who completes this course will have acquired:
- A basic familiarity with rings and fields, including both finite and infinite examples.
- An understanding of the meaning of the Fundamental Theorem of Galois Theory, and the ability to apply it to a variety of problems.
- A further development in maturity of proving techniques. The student will demonstrate this by applying these techniques to prove a variety of facts about rings, integral domains, and fields.
- A basic understanding of field extensions.

Grading Methods: In-class tests, take-home tests, final exam, homework, projects, as determined by instructor.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

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Action
- [ ] Modify
- [ ] Add
- [ ] Delete
- [ ] Credit
- [ ] Number
- [ ] Title
- [ ] Description
- [ ] Other

Credit
- [ ] Undergraduate
- [ ] Graduate
- [ ] Other*

*Variable credit must be explained

Frequency
- [ ] Every Term
- [ ] Yearly
- [ ] Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- [ ] Library resources are adequate
- [ ] Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s)/Admission to the program

Present or Projected Enrollment: (Students per year)

Effective Date*: Fall /2008

Grading System:
- [ ] Letter Grade
- [ ] Pass/Fail
- [ ] Other

Approval:

Department Chair: [Signature] 6-15-01

Dean of College: [Signature] 7-2-01

Chair of TEAC (if teacher prep. program): [Signature] Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chair, with six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit.

Chair, Undergraduate Academic Programs Committee: [Signature] Date

Chair, Committee on Graduate Studies: [Signature] Date

Vice President for Academic Affairs: [Signature] Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6473
Course Title: Combinatorial Analysis

Prerequisite: Admission to the program

Topics:
1. Algorithms and Complexity (2.18)
2. Polya Theory (8.1-8.6)
3. Combinatorial Designs and Latin Squares (9.1-9.5)
4. Coding Theory (10.1-10.5)

Learning Outcomes:
It is expected that upon completion of this course, the student will

1. Have a basic understanding of algorithm complexity and NP-completeness.
2. Understand permutation groups and their applications to enumeration of distinct colorings of combinatorial objects.
3. Understand the statements of Burnside’s Theorem and Polya’s Theorem.
4. Be able to determine necessary conditions for the existence of combinatorial designs with given parameters, and be able to construct several families of combinatorial designs.
5. Be able to construct sets of mutually orthogonal Latin squares, and use them to construct combinatorial designs.
6. Understand maximum-likelihood decoding and be able to construct generator and parity-check matrices for linear error-correcting codes. Be able to use networks and directed networks to find good solutions to optimization problems.

Grading Procedure:
Tests: There will be two in-class tests.
Assignments: There will be five assignments that will be taken up and graded. You must complete these assignments on your own.
Homework: Homework will be assigned from almost all sections covered. Homework is not collected, but should be completed before the next class meeting.
Final Exam: The final exam will be comprehensive.

The grade is determined as follows:
- 45% Tests
- 30% Assignments
- 25% Final Exam
# Course or Program Addition, Deletion or Modification Request

**Department:** Mathematics  
**College:** College of Arts & Sciences

## Current course catalog listing: (for modifications or deletions)

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**Action**

- [ ] Course  
- [ ] Program

- [ ] Modify  
- [x] Add  
- [ ] Delete

**Credit**

- [ ] Undergraduate  
- [x] Graduate

- [ ] Other*

*Variable credit must be explained

**Frequency**

- [ ] Every Term
- [ ] Yearly
- [x] Other

---

**Rationale:** To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- [ ] Library resources are adequate  
- [ ] Library resources need enhancement

---

## Proposed Course Catalog Listing: (For new courses or for modification)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Math 6483</th>
<th>Course</th>
<th>Theory of Graphs</th>
<th>Hours: Lecture/Lab/Total</th>
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**Catalog Description** (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For SXXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

---

**Prerequisite(s):** Math 3003

**Present or Projected Enrollment:** (Students per year)  

**Effective Date:** Fall 2008

*For a new course, one full term must pass between approval and effective date.

**Grading System:**  

- [x] Letter Grade  
- [ ] Pass/Fail  
- [ ] Other

**Approval:**

- [Signature]

  **Date:** 6-15-07  
  **Department Chair:**  
  **Date:** 7-2-07  
  **Dean of College:**  
  **Date:**

**Chair of TEAC (if teacher prep. program):**  
**Date:**

**Final Approval:** Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairmen (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit)

- [Signature]

**Chair, Undergraduate Academic Programs Committee:**  
**Date:**

**Chair, Committee on Graduate Studies:**  
**Date:**

---

**Vice President for Academic Affairs:**  
**Date:**

**Revised 1/09/02**
Course Syllabus

Course Number:  MATH 6483
Course Title:  Theory of Graphs
Prerequisite:  MATH 3003

Topics:
1. Fundamentals (1.1-1.8)
2. Matchings (2.1-2.3)
3. Connectivity (3.1-3.2)
4. Planar Graphs (4.1-4.6)
5. Dense Graphs (7.1-7.3)
6. Graph Ramsey Theory (9.1-9.4)

Learning Outcomes:
It is expected that upon completion of this course, the student will

1. Have a rich knowledge of the basic concepts and definitions of graph theory.
2. Have a thorough understanding of matchings in bipartite and general graphs, and know the statements and understand the proofs of Tutte's 1-factor theorem, Peterson's Theorem, Hall's Theorem, and the Marriage Theorem. Be familiar with vertex-connectivity and edge-connectivity, blocks, and the Max-flow Min-cut theorem.
3. Be able to use and prove Euler's Formula for planar graphs and find the dual of a planar graph.
4. Know the statement and understand the proof of Turan's theorem.
5. Be familiar with graph Ramsey theory and understand the proofs of the basic theorems in the area.

Grading Procedure:
Tests: There will be two in-class tests.
Assignments: There will be eight assignments that will be turned in and graded. You must complete these assignments on your own.
Homework: Homework will be assigned from almost all sections covered. Homework is not collected, but should be completed before the next class meeting.
Final Exam: The final exam will be comprehensive.

The grade is determined as follows:
- 45% Tests
- 30% Assignments
- 25% Final Exam
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)
Prefix Math Course 6503 Title Numerical Methods in Applied Mathematics

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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☐ Library resources are adequate ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)
Prefix Math Course 6503 Title Numerical Methods in Applied Mathematics

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 2853, Math 3303

Present or Projected Enrollment: (Students per year) Effective Date*: Fall 2008

Grading System: ☑ Letter Grade ☐ Pass/Fail ☐ Other

Approval:

Department Chair Date
Department Chair (if cross listed) Date
Dean of College Date
Dean of College (if cross listed) Date

Chair of TEAC (if teacher prep. program) Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee Date
Chair, Committee on Graduate Studies Date

Vice President for Academic Affairs Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6503  
Course Title: Numerical Methods in Applied Mathematics  
Prerequisite: MATH 2853, MATH 3303

Topics include:
- Norms, floating-point arithmetic and rounding errors, well-posed computations.
- Numerical linear algebra: pivoting, conditioning, factorization methods, iterative methods, computing eigenvalues and eigenvectors.
- Iterative solutions of nonlinear equations: error propagation, higher order methods, Newton’s Method.
- Polynomial Interpolation.
- Numerical differentiation and integration.

Learning Outcomes:
It is expected that the student who completes this course will:
- Be able to understand basic concepts behind rounding error and well-posed computations.
- Be able to identify and apply a variety of methods for solving linear systems and doing matrix algebra.
- Be able to identify and apply a variety of iterative methods for solving nonlinear equations.
- Be able to understand and apply methods of polynomial interpolations to problems involving numerical differentiation.
- Be able to identify and apply a variety of methods for performing numerical integration.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix Math Course 6513 Title Applied Linear Algebra

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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

[ ] Library resources are adequate
[ ] Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Math 6513 Applied Linear Algebra

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s): Math 2853

Present or Projected Enrollment: (Students per year)

Effective Date*: Fall 2008

Term/Year

Grading System: [ ] Letter Grade [ ] Pass/Fail [ ] Other

Approval:

Department Chair: Date 6-15-07

Department Chair (if cross listed): Date 7-2-07

Dean of College: Date

Dean of College (if cross listed): Date

Chair of TEAC (if teacher prep. program): Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies, Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signature carrying both undergraduate and graduate credit)

Chair, Undergraduate Academic Programs Committee: Date

Chair, Committee on Graduate Studies: Date

Vice President for Academic Affairs: Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6513
Course Title: Applied Linear Algebra
Prerequisite: Elementary Linear Algebra (MATH 2853)

Topics include:
- Linear equations solving, error analysis and accuracy
- Linear least square problems
- Non-symmetric eigenvalue problems
- The symmetric eigenvalue problems and singular value decomposition
- Iterative methods for linear systems

Learning Outcomes:
It is expected that the student who completes this course will:
- Be able to comprehend the basic methods of solving linear equations, including Gaussian elimination method, and be able to analyze the error and improve the accuracy.
- Be able to understand and apply the concept of orthogonality to the study of the linear least square problems
- Be able to understand and apply the concept of canonical forms and algorithms for eigenvalue problems
- Be able to understand and apply the perturbation theory, basic algorithms for eigenvalue problems
- Be able to understand the Poisson’s equations in one and two dimensions and apply the iterative methods for linear systems.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics

College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix: Math Course: 8443 Title: Inverse Problems

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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☐ Library resources are adequate  ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Prefix: Math Course: 8443 Title: Inverse Problems

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 6253

Present or Projected Enrollment: (Students per year) Effective Date*: Fall 2008

*For a new course, one full term must pass between approval and effective date.

Grading System: ☑ Letter Grade ☐ Pass/Fail ☐ Other

Approval:

Department Chair Date

Dean of College Date

Chair of TEAC (if teacher prep. program) Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee Date

Chair, Committee on Graduate Studies Date

Vice President for Academic Affairs Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6253
Course Title: Inverse problems
Prerequisite: MATH 6253

Topics include:
- Basis facts from Functional Analysis
- Ill-posed problems
- Regularization of the first kind
- Regularization by discretization
- Inverse eigenvalue problems

Learning Outcomes:
It is expected that the student who completes this course will:
- Be able to comprehend and apply the basic techniques from Functional Analysis to prove theorems, to solve problems concerning the general theory of Inverse Problems
- Be able to understand various applications of the theory of inverse problems
- Be able to understand and apply the methods of regularization of first kind to solve problems in the field
- Be able to understand and apply the methods of regularization by discretization to solve problems in the field.
- Be able to understand the methods of inverse eigenvalue problems.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
# Course or Program Addition, Deletion or Modification Request

**Department:** Mathematics  
**College:** College of Arts & Sciences

**Current course catalog listing: (for modifications or deletions)**

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<th>Prefix</th>
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**Rationale:** To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

| Library resources are adequate | Library resources need enhancement |

**Proposed Course Catalog Listing: (For new courses or for modification)**

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<td>6713</td>
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| Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For SXXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies): |

**Prerequisite(s)**

| Admission to the program |

**Present or Projected Enrollment:** (Students per year)

| Effective Date*: Fall / 2008 Term/Year |

| Grading System: | ☑ Letter Grade | ☐ Pass/Fail | ☐ Other |

| Approval: |

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<th>Date</th>
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**Final Approval:** Submitted by College Dean to Undergraduate Academic Programs Chair and to Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signature required both undergraduate and graduate credit).

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<th>Date</th>
<th>Chair, Committee on Graduate Studies</th>
<th>Date</th>
</tr>
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</table>

| Vice President for Academic Affairs | Date |

Revised 1/09/02
Course Syllabus

Course Number: MATH 6713
Course Title: Strategies for Teaching Mathematics
Hours Credit: 3 hours
Prerequisites: Admission to the program

Course Description: This course is designed to enable the learner to develop skills in teaching and planning for mathematics instruction at the secondary level. Special emphasis will be given to preparing teachers to teach in a performance-based curriculum.

Topics: lesson planning, unit planning (including the backward design model), instructional models (including concept attainment, inquiry development, laboratory activities, group investigations, teacher centered instruction), differentiated instruction, assigning homework, problem solving, technology in the math classroom

Sample Text(s):

Additional Reference:

Learning Outcomes: It is expected that the student who completes this course will be able to:
  1. design lessons incorporating a variety of instructional models;
  2. develop unit plans using the backwards design process;
  3. differentiate instruction based on the needs of students;
  4. use major theories of motivating students from different backgrounds to learn mathematics in designing instruction; and
  5. develop lessons involving the use of manipulative materials and/or technology.

Grading Methods: [Check all that apply]
- ☑ Tests - % decided by instructor
- ☑ Quizzes - % decided by instructor
☐ Midterm Exam - % decided by instructor
☐ Final Exam - % decided by instructor
☐ Homework - % decided by instructor
☐ Paper(s) - % decided by instructor
☐ Project(s) - % decided by instructor
☐ Other - % decided by instructor

Grading Scale: [Check which one applies]
☐ Pass/Fail
☐ Letter Grade
   A = 90 – 100
   B = 80 – 89
   C = 70 – 79
   F = below 70
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

<table>
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Action: 
- [ ] Course
- [ ] Program
- [ ] Modify
- [ ] Add
- [ ] Delete

Credit: 
- [ ] Undergraduate
- [ ] Graduate
- [ ] Other*

Frequency: 
- [ ] Every Term
- [ ] Yearly
- [ ] Other

*Variable credit must be explained

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- [ ] Library resources are adequate
- [ ] Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Admission to the program

Present or Projected Enrollment: (Students per year) Effective Date*: Fall / 2008

- [ ] For a new course, one full term must pass between approval and effective date.

Grading System: 
- [ ] Letter Grade
- [ ] Pass/Fail
- [ ] Other

Approval:

Signed: [Signature]
Date: 6-15-07

Department Chair Date: Department Chair (if cross listed) Date: 7-2-07

Dean of College Date: Dean of College (if cross listed) Date: 

Chair of TEAC (if teacher prep. program) Date: 

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Signed: [Signature]
Date: 9/14/07

Chair, Undergraduate Academic Programs Committee Date: Chair, Committee on Graduate Studies Date: 

Vice President for Academic Affairs Date: 

Revised 1/09/02
Course Syllabus

Course Number: MATH 6723
Course Title: Assessment and Classroom Management in Mathematics Education
Hours Credit: 3 hours
Prerequisite: Admission to the program

Course Description: This course is designed to enable the learner to develop skills in assessment and evaluation as well classroom management in the secondary-level mathematics classroom. Special emphasis will be given to the preparation and assessment of performance-based tasks.

Topics: performance-based tasks, test/quizzes, informal assessments, academic prompts, rubrics, grading, using assessment to inform instruction, classroom management, rules/procedures, disciplinary interventions, teacher-student relationships.

Sample Text(s):

Additional Reference:

Learning Outcomes: Students should be able to:
(1) design appropriate assessment and evaluation instruments along with scoring rubrics;
(2) differentiate between the purpose of evaluation and assessment instruments;
(3) use assessment information to inform instructional practices;
(4) develop classroom policies and procedures;
(5) develop an effective discipline plan; and
(6) recognize the elements of an effective student-teacher relationship.

Grading Methods: [Check all that apply]
☐ Tests - % decided by instructor
☐ Quizzes - % decided by instructor
☐ Midterm Exam - % decided by instructor
Final Exam - % decided by instructor
Homework - % decided by instructor
Paper(s) - % decided by instructor
Project(s) - % decided by instructor
Other - % decided by instructor

Grading Scale: [Check which one applies]

☐ Pass/Fail
☐ Letter Grade
  A = 90 – 100
  B = 80 – 89
  C = 70 – 79
  F = below 70
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)
Prefix Math Course 6733 Title Research in Mathematics Education

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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)
Prefix Course Title Hours: Lecture/Lab/Total
Math 6733 Research in Mathematics Education 3 / 0 / 3

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Admission to the program

Present or Projected Enrollment: (Students per year) Effective Date*: Fall 2008 Term/Year

*For a new course, one fall term must pass between approval and effective date.

Grading System: ☑ Letter Grade ☐ Pass/Fail ☐ Other

Approval:

Bruce Langley 1-15-07
Department Chair Date

7-2-07
Dean of College Date

Chair of TEAC (if teacher prep. program) Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee Date

Chair, Committee on Graduate Studies Date

Vice President for Academic Affairs Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6733
Course Title: Research in Mathematics Education
Hours Credit: 3 hours
Prerequisites: Admission to the program

Course Description: This course is designed to enable the learner to review, analyze, and interpret available research in mathematics education with emphasis on the application of research to the secondary mathematics classroom.

Topics: history of research in mathematics education, research methods, mathematics teaching, teachers’ beliefs, research on whole number operations, rational numbers, algorithms, algebra, geometry, data, probability, measurement, problem solving, reasoning & proof, and communication & language.

Sample Text(s):

Learning Outcomes: It is expected that the student who completes this course will be able to:

(1) judge the significance of behavioral, education, and mathematical studies for improving mathematics education;
(2) identify standard summaries of research in mathematics education and to identify areas of research with implications for teacher’s current assignment or study;
(3) identify and list journals which publish research articles in mathematics education;
(4) make decisions about educational practices based on research; and
(5) read research reports critically.

Grading Methods: [Check all that apply]
- ☑ Tests - % decided by instructor
- ☑ Quizzes - % decided by instructor
- ☑ Midterm Exam - % decided by instructor
- ☑ Final Exam - % decided by instructor
- ☑ Homework - % decided by instructor
- ☑ Paper(s) - % decided by instructor
- ☑ Project(s) - % decided by instructor
☑ Other - % decided by instructor

Grading Scale: [Check which one applies]

☐ Pass/Fail

☑ Letter Grade

A = 90 - 100
B = 80 - 89
C = 70 - 79
F = below 70
Course or Program Addition, Deletion or Modification Request

Department: Mathematics  
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)

Prefix  Course  Title  Advanced Perspectives on Secondary Mathematics  Hours: Lecture/Lab/Total

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*Variable credit must be explained

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate  ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Prefix  Course  Title  Hours: Lecture/Lab/Total

Math 6743  Advanced Perspectives on Secondary Mathematics  3 / 0 / 3

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s)  Math 3243 and Math 3413 or the equivalent

Present or Projected Enrollment: (Students per year)  Effective Date*, Fall / 2008

*For a new course, one full term must pass between approval and effective date.

Grading System:  ☑ Letter Grade  ☐ Pass/Fail  ☐ Other

Approval:

☐ Department Chair  6-15-07

☐ Dean of College  7-2-07

Chair of TEAC (if teacher prep. program)  Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair, and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signature carrying both undergraduate and graduate credit)

Chair, Undergraduate Academic Programs Committee  Date

Vice President for Academic Affairs  Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6743
Course Title: Advanced Perspectives on Secondary Mathematics
Prerequisite: MATH 3243 and MATH 3413 or the equivalent

Topics:

1. Features of an advanced perspective: concept analysis, problem analysis, mathematical connections
2. Real and Complex Numbers
3. Functions
   a. History and Definitions
   b. Properties of Real Functions
   c. Problems Involving Real Functions
4. Equations
   a. The Concept of Equation
   b. Algebraic Structures and Solving Equations
   c. The Solving Process
5. Integers and Polynomials
   a. Natural Numbers, Induction, Recursion
   b. Divisibility Properties of the Integers
   c. Divisibility Properties of Polynomials
6. Number System Structures
   a. Systems of Modular Arithmetic
   b. Number Fields

Learning Outcomes:

It is expected that the student who completes this course will have acquired the ability to:
1. Analyze the origins, representations, and applications of mathematical concepts.
2. Analyze solutions of mathematical problems to determine (i) alternate means of solving and/or representing the solution, (ii) ways of extending and/or generalizing the problem.
3. Explain the construction of the real and complex number systems and various ways of representing real and complex numbers.
4. Describe the origins and meaning of notation used to represent functions.
5. Describe the various ways of representing and defining of functions.
6. Analyze common mathematical problems and real-world models using functions.
7. Make mathematically precise notions of equivalence and equality.
8. Describe various ways of representing solutions of equations.
Course or Program Addition, Deletion or Modification Request

Department: Mathematics
College: College of Arts & Sciences

Current course catalog listing: (for modifications or deletions)
Prefix Math 6903 Title BioMathematics

Action
☑ Course □ Program
□ Modify  ☑ Add  □ Delete
□ Credit □ Number □ Title □ Description □ Other

Credit
□ Undergraduate
☑ Graduate
□ Other*
*Variable credit must be explained

Frequency
□ Every Term
□ Yearly
□ Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate □ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)
Math 6903 Title BioMathematics 3 / 0 / 3

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) Math 2853, Math 3303, reasonable background in Biology

Present or Projected Enrollment: (Students per year) Effective Date*: Fall / 2008
*For a new course, one full term must pass between approval and effective date.

Grading System: ☑ Letter Grade □ Pass/Fail □ Other

Approval:
Department Chair (if cross listed) Date
Dean of College (if cross listed) Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit)
Chair, Undergraduate Academic Programs Committee Date
Chair, Committee on Graduate Studies Date

Vice President for Academic Affairs Date

Revised 1/09/02
Course Syllabus

Course Number: MATH 6903
Course Title: BioMathematics
Textbooks:
Prerequisite: MATH 2853, MATH 3303, reasonable background in Biology
Topics include:
- Model building in development of experimental science
- Mathematical theories and models for growth of one-species
- Mathematical theories of two and more species systems (predator-prey, competition, symbiosis; leading up to present-day research)
- Mathematical treatment of differential equations in models stressing qualitative and graphical aspects, as well as certain aspects of discretization
- Difference equation models
- Scrutiny of biological concepts as well as of mathematical structure of models in order to uncover both weak and strong points of models.

Learning Outcomes:
It is expected that the student who completes this course will:
- Be able to comprehend the basic techniques of modeling using differential or difference equations
- Be able to understand and apply mathematical theories and models for growth of one-species populations (logistic and off-shoots), including considerations of age distributions (matrix models, Leslie and Lopez).
- Be able to understand and apply mathematical theories of two and more species systems (predator-prey, competition, symbiosis; leading up to present-day research)
- Be able to understand mathematical treatment of differential equations in models stressing qualitative and graphical aspects, as well as certain aspects of discretization
- Be able to understand and apply difference equation models to analyze the growth of populations
- Be able to understand scrutiny of biological concepts as well as of mathematical structure of models in order to uncover both weak and strong points of models.

Grading Policy:
Test: There will be three 50-minute tests, and a cumulative final exam. No make-up tests will be given.
Take-home Projects (graded): There will be two sets of take-home assignments, which will be graded. Your work on these assignments is to be your own.
Homework (not graded): Homework problems will be assigned regularly. An important part of each homework assignment is to read the corresponding material in the text.
Final Exam: There will be a comprehensive final exam.
The grade will be determined as follows:
Tests: 50%; Projects: 20%; Final Exam: 30%.
10. Use the theory of functions in solving equations and inequalities.
12. Recognize and prove various logical equivalences to mathematical induction.
13. Apply and prove the Division Algorithm and the Euclidean Algorithm.
14. Extend the Division and Euclidean Algorithms to polynomials.
15. Develop and apply algebraic properties of modular arithmetic systems.
16. Relate integer congruence to real-world applications.
17. Prove and apply the Chinese Remainder Theorem.
18. Relate properties of the real and complex number systems to general ordered fields.

**Grading Procedure:**

**Problem Sets:** There will be a set of problems assigned after each section covered in the text.

**Projects:** There will be project associated with each Chapter of the text, six in all.

**Final Exam:** There will be a comprehensive take-home final exam.

For your grade in the course, the grade will be determined as follows

- Problem Sets 40%
- Projects 40%
- Final Exam 20%
Course or Program Addition, Deletion or Modification Request

State University of West Georgia

Current course catalog listing: (for modifications or deletions)

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Prefix: 
Course: 
Title: Ed.S. in Secondary Education

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Catalog Description: (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

<table>
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<th>Prerequisite(s):</th>
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Present or Projected Enrollment: 15 (Students per year)

Effective Date*: Summer/2008

Grading System: Letter Grade Pass/Fail Other

Approval:

Department Chair

Dean of College

Chair of TEAC (if teacher prep. program)

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and a Committee on Graduate Studies Chairman (see copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee

Chair, Committee on Graduate Studies

Vice President for Academic Affairs

Revised 1/09/02
Rationale for Modifying Program Sheet
Education Specialist in Secondary Education

This program provides an in-depth knowledge of the teaching field and an opportunity for utilization of research methods and professional literature.

This program has not changed in over ten years. Even during semester conversion, the focus of the course and the culminating activity remained the same. In today’s world, teachers are filling new positions of leadership and the faculty feel that teachers would be better served completing their specialists’ degrees in a poster session and oral defense rather than completing a bound paper. The proposal, then, is to make EDRS 8304 the culminating course, rather than MGED 8283 where a paper was completed. In this course (EDRS 8304), other students are preparing for a paper session with oral interpretation.

This requires the following changes to the program and advisement sheet:

Adding an elective to provide more flexibility for students.

Removing SEED 8283 Research Project and adding a three hour elective.

Deleting program notes 4, 5, 7, and 8.
#4: Special education is required for all certification and certification is required for acceptance to the specialist program.
#5: Due to the removal of SEED 8283.
#7: Because all courses are taught on campus or by distance learning.
#8: Transfer hours are never accepted at the specialist level.
Current
EDUCATION SPECIALIST
SECONDARY EDUCATION
ADVIEMENT SHEET

Name: ________________________  ID# ____________________  Advisor ____________________

Permanent Address: ________________________________________________________________

Work/Campus Address: ______________________________________________________________

Telephone: ______________  FAX: ______________  Email: _________________________________

Master Degree/Major: _______________________________________________________________

Colleges and Dates Previously Attended: ______________________________________________

Present Certification (Field and Level): ______________________________________________

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Program Notes

1. Content courses should be taken in the area of certification.
2. There is no provisional admission to this program. No course taken prior to admission may be used toward the Ed.S. degree.
3. Admission to this program requires a Masters degree and a Level 5 Secondary clear, professional teaching certificate.
4. If not taken earlier, SPED 2706, Introduction to Special Education, must be completed to meet Georgia certification requirements.
5. Students should enroll in SEED 8283, Research Project, during the semester in which the project will be completed.
6. It is the student’s responsibility to apply for graduation in a timely manner. Pay attention to deadlines.
7. Thirteen hours in this program may be taken off-campus. Transfer courses count as off-campus courses.
8. With the advisor’s permission, up to 6 semester hours of credit may be transferred from an accredited institution. These transfer hours must be earned after a student has been officially admitted to the Ed.S. program. Transfer credit must carry at least a grade of B. The suitability of the course for transfer is the decision of the advisor.
9. Students must meet all requirements imposed by the Graduate School, the College of Education, and the Department of Curriculum and Instruction.
10. Check all course prerequisites before enrolling.

College of Education
University of West Georgia

Ed.S./SEED  C & I
Effective Summer 2007
## PLAN OF STUDY

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Note: Sequence of research courses is as follows: SEED 8284, EDRS 8304, SEED 8283.

STUDENT SIGNATURE: ____________________________  DATE: ________

ADVISOR SIGNATURE: ____________________________  DATE: ________

DEPARTMENT CHAIR SIGNATURE: ___________________  (Designee)  DATE: ________
Proposed  
EDUCATION SPECIALIST  
SECONDARY EDUCATION  
ADVICEMENT SHEET

Name: __________________________ ID# __________________ Advisor ____________________

Permanent Address: ________________________________________________________________

Work/Campus Address: ______________________________________________________________

Telephone: __________________ FAX: __________________ Email: ________________________

Master Degree/Major: ______________________________________________________________

Colleges and Dates Previously Attended: ____________________________________________

Present Certification (Field and Level): _____________________________________________

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Program Notes

1. Content courses should be taken in the area of certification.
2. There is no provisional admission to this program. No course taken prior to admission may be used toward the Ed.S. degree.
3. Admission to this program requires a Masters degree and a Level 5 Secondary clear, professional teaching certificate.
4. It is the student’s responsibility to apply for graduation in a timely manner. Pay attention to deadlines.
5. Students must meet all requirements imposed by the Graduate School, the College of Education, and the Department of Curriculum and Instruction.
6. Check all course prerequisites before enrolling.
**Proposed**

**EDUCATION SPECIALIST**

**SECONDARY EDUCATION**

**PLAN OF STUDY**

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* Note: Sequence of research courses is as follows: SEED 8297, SEED 8284, EDRS 8304.

STUDENT SIGNATURE: ________________________________

DATE: ________

ADVISOR SIGNATURE: ________________________________

DATE: ________

DEPARTMENT CHAIR SIGNATURE: ________________________

(Designee)

DATE: ________

---

College of Education
University of West Georgia

Ed.S./SEED C & I
Effective Summer 2008
State University of West Georgia

Course or Program Addition, Deletion or Modification Request

Department: Curriculum and Instruction  College: College of Education

Current course catalog listing: (for modifications or deletions)

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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- Library resources are adequate
- Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s)

Present or Projected Enrollment: 20 (Students per year)  Effective Date*: Summer / 2008

- For a new course, one full term must pass between approval and effective date.
- Letter Grade
- Pass/Fail
- Other

Grading System:  

Approval:

Department Chair  Date  Department Chair (if cross listed)  Date

Dean of College  Date  Dean of College (if cross listed)  Date

Chair of TEAC (if teacher prep. program)  Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies, Chairmen (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee  Date  Chair, Committee on Graduate Studies  Date

Vice President for Academic Affairs  Date

Revised 1/09/02
Rationale for Modifying Program Sheet
Education Specialist in Middle Grades Education

This program provides an in-depth knowledge of the teaching field and an opportunity for utilization of research methods and professional literature.

This program has not changed in over ten years. Even during semester conversion, the focus of the course and the culminating activity remained the same. In today’s world, teachers are filling new positions of leadership and the faculty feel that teachers would be better served completing their specialists’ degrees in a poster session and oral defense rather than completing a bound paper. The proposal, then, is to make EDRS 8304 the culminating course, rather than MGED 8283 where a paper was completed. In this course (EDRS 8304), other students are preparing for a paper session with oral interpretation.

This requires the following changes to the program and advisement sheet:

Adding an elective to provide more flexibility for students.

Removing MGED 7261, 7262, 7263, or 7264 (strategies courses) from the program because these are taught in the masters program.

Removing MGED 8283 Research Project to add EDRS 8304 Data Analysis in Educational Research.

Deleting program notes 5, 6, 8, and 9.
#5: Special education is required for all certification and certification is required for acceptance to the specialist program.
#6: Due to the removal of MGED 8283.
#8: Because all courses are taught on campus or by distance learning.
#9: Transfer hours are never accepted at the specialist level.

Adding a new program note (#6) to require the taking of MGED 7261, 7262, 7263, or 7264 (strategies courses) by students who did not take one of these in their masters program.
Current
EDUCATION SPECIALIST
MIDDLE GRADES EDUCATION
ADVISEMENT SHEET

Name: _______________________________  ID# __________________

Permanent Address: ____________________________________________________________

Work/Campus Address: __________________________________________________________

Telephone: ___________________  FAX: ___________________  Email: __________________

Master Degree/Major: __________________________________________________________

Colleges and Dates Previously Attended: __________________________________________

Present Certification (Field and Level): __________________________________________

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<tr>
<th>ADMISSION REQUIREMENTS</th>
<th>COMPLETION DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate GPA</td>
<td>Initial Advising</td>
</tr>
<tr>
<td>GRE Scores.</td>
<td>Applicant for Candidacy</td>
</tr>
<tr>
<td>Letters of Reference</td>
<td>Department Exam</td>
</tr>
<tr>
<td>Personal Narrative</td>
<td></td>
</tr>
<tr>
<td>Department Interview</td>
<td></td>
</tr>
<tr>
<td>Date Admitted to Graduate School</td>
<td></td>
</tr>
</tbody>
</table>

Program Notes

1. Minimum requirements for the content specialization include at least 3 hours of strategies (MGED 7--) and 3 hours of Arts and Sciences content.
2. There is no provisional admission to this program. No course taken prior to admission may be used toward the Ed.S. degree.
3. PTED 7241, Teaching English as a Second Language: Methods and Materials, may be used as a strategies course, and PTED 7240, Issues in Applied Linguistics and Second Language Acquisition, may be used as a content course in content specialization.
4. Admission to this program requires either a Level 5 Middle Grades or Elementary (K-8) clear, professional teaching certificate.
5. If not taken earlier, SPED 2706, Introduction to Special Education, is required for certification by House Bill 671 of the Georgia Legislature.
6. Students should enroll in MGED 8283, Research Project, during the semester in which the project will be completed.
7. It is the student’s responsibility to apply for graduation in a timely manner. Pay attention to deadlines.
8. Thirteen hours in this program may be taken off-campus. Transfer courses count as off-campus courses.
9. With the advisor’s permission, up to 6 hours of credit may be transferred from an accredited institution. These transfer hours must be earned after a student has been officially admitted to the Ed.S. program. Transfer credit must carry at least a grade of B. The suitability of the course for transfer is the decision of the advisor.
10. Students must meet all requirements imposed by the Graduate School, the College of Education, and the Department of Curriculum and Instruction.

College of Education
University of West Georgia
# Current
**EDUCATION SPECIALIST**
**MIDDLE GRADES EDUCATION**
**PLAN OF STUDY**

<table>
<thead>
<tr>
<th>PLAN OF STUDY</th>
<th>HRS.</th>
<th>GR</th>
<th>SEMESTER PLANNED</th>
<th>TRF/SUB</th>
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</thead>
<tbody>
<tr>
<td>Professional Education</td>
<td>6</td>
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</tr>
<tr>
<td>*1. CEPD 8102 Lifespan Human Development</td>
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<tr>
<td>2. Choose course from:</td>
<td>3</td>
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<tr>
<td>EDFD 8371 Advanced Principles of Curriculum</td>
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<tr>
<td>EDLE 7312 Communicating and Interacting with the</td>
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<tr>
<td>School Community</td>
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</tr>
<tr>
<td>EDLE 7313 Skills for the Teacher Support Specialist</td>
<td></td>
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</tr>
<tr>
<td>EDLE 7316 The Teacher and the Law</td>
<td></td>
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</tr>
<tr>
<td>PTED 7242 Language-Minority Education and Culture</td>
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<tr>
<td>MEDT 7461 Instructional Design</td>
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<td>MGED 7271 Issues in Middle Grades Education</td>
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<tr>
<td>Content Specialization ^1</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGED 7261, 7262, 7263 or 7264</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>A &amp; S</td>
<td>3</td>
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<td>A &amp; S</td>
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<td>A &amp; S</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3. Research</td>
<td>9</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>*MGED 8284 Research Seminar (Middle Grades)</td>
<td>3</td>
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<tr>
<td>*MGED 8283 Research Project</td>
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<td></td>
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<tr>
<td>*MGED 8297 Professional Issues Seminar</td>
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<tr>
<td><strong>Total Program</strong></td>
<td><strong>27</strong></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

* Required Courses.

STUDENT SIGNATURE: ____________________________ DATE: ____________

ADVISOR SIGNATURE: ____________________________ DATE: ____________

DEPARTMENT CHAIR SIGNATURE: ____________________ DATE: ____________

(Designee)

College of Education
University of West Georgia

Ed.S./MGED
C & I  8/02
Proposed
EDUCATION SPECIALIST
MIDDLE GRADES EDUCATION
ADVISEMENT SHEET

Name: __________________________________________ ID# ____________

Permanent Address: _________________________________________________________

Work/Campus Address: _________________________________________________________

Telephone: ________________ FAX: ________________ Email: _______________________

Master Degree/Major: _________________________________________________________

Colleges and Dates Previously Attended: _________________________________________

Present Certification (Field and Level): _________________________________________

<table>
<thead>
<tr>
<th>ADMISSION REQUIREMENTS</th>
<th>COMPLETION DATES</th>
</tr>
</thead>
<tbody>
<tr>
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Program Notes

1. There is no provisional admission to this program. No course taken prior to admission may be used toward the Ed.S. degree.

2. PTED 7241, Teaching English as a Second Language: Methods and Materials, may be used as a strategies course, and PTED 7240, Issues in Applied Linguistics and Second Language Acquisition, may be used as a content course in content specialization.

3. Admission to this program requires either a Level 5 Middle Grades or Elementary (K-8) clear, professional teaching certificate.

4. It is the student’s responsibility to apply for graduation in a timely manner. Pay attention to deadlines.

5. Students must meet all requirements imposed by the Graduate School, the College of Education, and the Department of Curriculum and Instruction.

6. Students who have not taken MGED 7261, 7262, 7263, or 7264 (strategies courses) should take the appropriate course in their specialist program according to the advice of their advisor.
**Proposed**  
**EDUCATION SPECIALIST**  
**MIDDLE GRADES EDUCATION**  
**PLAN OF STUDY**

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<td>A &amp; S</td>
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</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

| Research                                           | 9    |    |                  |     |
| MGED 8297 Professional Issues Seminar             | 3    |    |                  |     |
| MGED 8284 Research Seminar (Middle Grades)         | 3    |    |                  |     |
| EDRS 8304 Data Analysis in Educational Research    | 3    |    |                  |     |

| Total Program                                      | 27   |    |                  |     |

Note: Sequence of research courses is as follows: MGED 8297, MGED 8284, EDRS 8304.

STUDENT SIGNATURE: _______________________________  DATE: _________

ADVISOR SIGNATURE: _______________________________  DATE: _________

DEPARTMENT CHAIR SIGNATURE: ________________________  DATE: _________

(Designee)

College of Education  
University of West Georgia  
Ed.S./MGED  
C & I  
Effective Summer 2008
**Course or Program Addition, Deletion or Modification Request**

**Department:** Curriculum and Instruction  
**College:** College of Education

### Current course catalog listing: (for modifications or deletions)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Initial Certification/Post-Baccalaureate-Chemistry</th>
<th>Hours: Lecture/Lab/Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Action**
- [] Course  
- [√] Program

**Credit**
- [] Undergraduate  
- [√] Graduate  
- [] Other*  

*Variable credit must be explained

- [] Every Term  
- [] Yearly  
- [] Other

### Rationale:
To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- [√] Library resources are adequate  
- [] Library resources need enhancement

### Proposed Course Catalog Listing: (For new courses or for modification)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Catalog Description** (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

**Prerequisite(s)** Bachelor's Degree in Chemistry or equivalent

**Present or Projected Enrollment:** 5 (Students per year)  
**Effective Date:** Summer 2008

**Grading System:**
- [] Letter Grade  
- [] Pass/Fail  
- [] Other

**Approval:**

- Donna M. Harris  
  Department Chair  
  June 2007

- Dean of College  
  Date  
  July 2007

- Chair of TEAC (if teacher prep. program)  
  Date

**Final Approval:** Submitted by College Dean to Undergraduate Academic Programs Chair and to Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

- Chair, Undergraduate Academic Programs Committee  
  Date  
  Chair, Committee on Graduate Studies  
  Date

**Vice President for Academic Affairs**  
**Date**

Revised 1/09/02
Rationale

Modify Program Sheet for Initial Certification/Post Baccalaureate-Chemistry

A change in Area F in the undergraduate programs has necessitated a change in the initial certification program sheets. The new Area F courses will not be required of initial certification students. Since the old Area F courses are being deleted, they must be deleted from the initial certification program sheets. The changes to the program sheet reflect the following:

1. Removal of references to the PRAXIS to be replaced with references to the GACE examinations.

2. Deletion of SEED 2271, CEPD 2102, and SPED 2706.

3. The altering of the special education requirement to include the proposed course SPED 3715.

4. Altering of the note about InTech and the inclusion of the new course, MEDT 3401.

5. At the request of the Department of Chemistry, the chemistry requirements are being changed to read a B.A. in Chemistry or the equivalent (35 hours).
State University of West Georgia  
2003-04
Initial Certification/ Post-Baccalaureate – Chemistry -- Current

A. Prerequisites to Admission to Teacher Education Program (TEP):

1. Overall cumulative GPA of 2.7  yes  no  GPA

2. Passing scores on the Praxis I (or SAT/ACT exemption)  R  W  M

3. The following prerequisite courses: (2.5 GPA requirement) fall and spring only  

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs. Req</th>
<th>Hrs. Completed</th>
<th>Grade Earned</th>
<th>Hrs. Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEED 2271 Intro to Secondary Education* ****</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEPD 2102 Developmental Psychology*</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPED 2766 Intro to Special Education*</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEDT 2401 or 6401 Intro to Instructional Technology* ** 6401 will meet the state InTech requirement</td>
<td>0-3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Students cannot enroll in professional program courses below until all prerequisite courses have been completed.**
| **May be exempted by departmental exam.**
| **Requires placement in a field experience in the public schools.**

Total: 8-11

B. Professional Education Courses*

a. SEED 4271 Understanding the Secondary School Curriculum through Instructional Technology** spring only
   3

b. SEED 4242 Instructional Strategies for Secondary Science Education** fall only
   4

c. CEPD 4101 Educational Psychology
   3

Areas B and C must be taken at UWG

Total: 10

**Requires 2.7 GPA and admission to the Teacher Education Program.

**Requires placement in a field experience in the public schools. Field placement applications must be filed by the posted deadlines.

C. Internship*

a. SEED 4286 Teaching Internship** or SEED 4287 and 4288 Teaching Internships I and II (for provisionally certified students)**InTech required
   6-9

b. SEED 4289 Teaching Internship Seminar
   3

Praxis II assessments

Total: 9-12

**Requires 2.7 GPA and admission to the Teacher Education Program.

**Requires placement in a full semester or year-long internship. Field placement applications must be filed by the posted deadlines.

D. Chemistry Requirements: 6 chemistry courses, 2 physics courses, and 2 earth science or 2 chemistry courses

<table>
<thead>
<tr>
<th>Chemistry Course/Hrs/Grade</th>
<th>Physics Course/Hrs/Grade</th>
<th>Earth Science or Biology Courses/Hrs/Grade</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>4.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>5.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>6.</td>
<td></td>
</tr>
</tbody>
</table>

Note: 1. Students must earn grades of C or better on all undergraduate courses and a B or better on all graduate courses indicated above.

2. This agreement reflects analysis of unofficial transcripts and may be rendered invalid should discrepancies be found in official transcripts submitted to the university.

Student Signature & Date:  
Evaluator/Adviser Signature & Date:  
Revised 10-24-03  
Expiration Date: 
### A. Prerequisites to Admission to Teacher Program (TE):

1. Overall cumulative GPA of 2.7  **yes**  **no**  GPA:

2. Passing scores on the GACE Basic Skills Assessment (or SAT/ACT exemption)  R  **W**  M

### B. Professional Education Courses*

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. SEED 4271 Understanding the Secondary School Curriculum through Integrative Technology** (spring only)</td>
<td>3</td>
</tr>
<tr>
<td>b. SEED 4242 Instructional Strategies for Secondary Science Education** (full only)</td>
<td>4</td>
</tr>
<tr>
<td>c. CEPD 4101 Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>d. SPED 3715 Inclusive Classrooms or 6706 Special Education</td>
<td>3</td>
</tr>
<tr>
<td>e. MEDT 3401 Integrating Technology or 6401 Instructional Technology^</td>
<td>0-3</td>
</tr>
</tbody>
</table>

*Requires 2.7 GPA and admission to Teacher Education.** Requires placement in a field experience in the public schools. Field placement applications must be filed by the posted deadlines.

### C. Internship^  

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. SEED 4286 Teaching Internship** or SEED 4287 and 4288 Teaching Internships I and II (for provisionally certified students)**</td>
<td>6-9</td>
</tr>
<tr>
<td>b. SEED 4289 Teaching Internship Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

**Requires 2.7 GPA and admission to Teacher Education.  
**Requires placement in a full semester or year-long internship. Field placement applications must be filed by the posted deadlines. See advisor.

### D. Chemistry Requirements: BA in Chemistry or the equivalent (35 hours)^  

<table>
<thead>
<tr>
<th>Course/Hours/Grade</th>
<th>Hrs/Grade</th>
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<tbody>
<tr>
<td>BA in Chemistry</td>
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</tr>
<tr>
<td>53 hours in Chemistry</td>
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</tbody>
</table>

^Requires 2.7 GPA and admission to Teacher Education.  
**Requires placement in a full semester or year-long internship. Field placement applications must be filed by the posted deadlines. See advisor.

1. Candidates must earn grades of "C" or better on all undergraduate courses. Candidates must earn grades of "B" or better, or an overall average of 3.0 on all graduate level course work attempted applicable to the field of certification.
2. This agreement reflects analysis of unofficial transcripts and may be rendered invalid should discrepancies be found in official transcripts submitted to the university.
3. Candidates must meet the Special Georgia Technology Requirement before they can be recommended for clear renewable certification. This may be completed at UWG by taking MEDT 3401 or 6401 or through any PSC-approved option found at http://www.gapse.com/ApprovedPrograms/EducationProgram.asp. Must provide documentation. AssessOnline is not acceptable.
4. Must be taken at UWG.

*Note: 'GACE Content Assessment must be taken and passed.'

---

Student Signature & Date: ___________________________  Evaluator/Advisor Signature & Date: ___________________________

Revised: 8-16-07  Effective Summer 2008

Expiration Date:
Course or Program Addition, Deletion or Modification Request

Department: Media & Instructional Technology College: College of Education

Current course catalog listing: (for modifications or deletions)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>M.Ed. in Media (IT Track)</th>
<th>Hours: Lecture/Lab/Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>Action</th>
<th>Credit</th>
<th>Frequency</th>
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<tr>
<td>□ Course  ✔ Program</td>
<td>□ Undergraduate</td>
<td>✔ Every Term</td>
</tr>
<tr>
<td>✔ Modify</td>
<td>✔ Graduate</td>
<td>□ Yearly</td>
</tr>
<tr>
<td>□ Add</td>
<td>□ Other*</td>
<td>□ Other</td>
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<td>□ Delete</td>
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<td>□ Description</td>
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</tr>
<tr>
<td>✔ Other</td>
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*Variable credit must be explained

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

✔ Library resources are adequate □ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s)

Present or Projected Enrollment: 30 (Students per year)

*For a new course, one full term must pass between approval and effective date.

Grading System: □ Letter Grade □ Pass/Fail □ Other

Effective Date*: Spring / 2008

Approval:

B. McKenzie 4/23/07

Department Chair Date

Dean of College 4/26/07

Date

Chair of TEAC (if teacher prep. program) 9/17/2007

Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signatures for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credits).

Chair, Undergraduate Academic Programs Committee 7/25/07

Date

Chair, Committees on Graduate Studies Date

Vice President for Academic Affairs Date

Revised 1/09/02
Rationale

MEDT 7472 is proposed as an elective to students in the MEd (IT track) program, and EdS (IT and Media track) programs. It has not been included in the MEd (Media track) program because that program does not include electives. The emergence of K-12 Virtual Schools in Georgia and other states, as well as the growth of online professional development opportunities available to educators, means many of our students recognize that they may be asked to develop online courses for their students or online professional development sessions for their colleagues. As a result, there is a demand for this course among many of our students.
### University of West Georgia - M.Ed. in IT Program - Plan B

**Entry Degree:** Bachelors  
**Exit Degree:** M. Ed. (36 hrs. required)  
**This degree does not provide media certification.**

<table>
<thead>
<tr>
<th>Area I - 3 hrs.</th>
<th>Educational Psychology</th>
<th>Sem. Hrs.</th>
<th>Semester</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEPD 6101</td>
<td>Psychology for Classroom Learning (1, 2, or 3)</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td>Area II - 3 hrs.</td>
<td>Foundations</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>PTED 7271</td>
<td>Issues in School Curriculum (P-12) or an alternate curriculum course approved by advisor (1, 2, or 3)</td>
<td>3</td>
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<tr>
<td>Area III - 27 hrs.</td>
<td>Media &amp; Technology</td>
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<tr>
<td>MEDT 6401</td>
<td>Instructional Technology (if InTech certified, an elective in Media must be substituted) (1)</td>
<td>3</td>
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<tr>
<td>MEDT 6482</td>
<td>Administration of Instructional Technology (1)</td>
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<tr>
<td>MEDT 6491</td>
<td>Internship (an elective may be substituted for practicing instructional technologists) (3)</td>
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<tr>
<td>MEDT 7461</td>
<td>Instructional Design (2)</td>
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<tr>
<td>MEDT7464</td>
<td>Integrating Technology into the Curriculum (2)</td>
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<tr>
<td>MEDT7467</td>
<td>Web Design for Instruction (2)</td>
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<tr>
<td>MEDT7468</td>
<td>Introduction to Multimedia (2)</td>
<td>3</td>
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<td>MEDT7470</td>
<td>Videotape Production &amp; Utilization (2)</td>
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<tr>
<td>One elective approved by advisor</td>
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<tr>
<td>Area IV - 3 hrs.</td>
<td>Research</td>
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<tr>
<td>EDRS 6302</td>
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<td>3</td>
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</tr>
<tr>
<td>EDRS 6301</td>
<td>(OR Research in Education (on permission of advisor) (1, 2, or 3)</td>
<td>3</td>
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</tbody>
</table>

The following course is required as a prerequisite if the student has not acquired basic computer skills:

| MEDT 2401 | Introduction to Instructional Technology (1) | 3 |

**Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Sem. Hrs.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EDILE 8320</td>
<td>Designing and Conducting Staff Development Programs (2)</td>
<td>3</td>
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</tr>
<tr>
<td>MEDT 7462</td>
<td>Internet Tools, Resources &amp; Issues in Education (2)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MEDT 7465</td>
<td>Materials for Children &amp; Young Adults (2)</td>
<td>3</td>
<td></td>
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<tr>
<td>MEDT 7466</td>
<td>Digital and 35mm Photography (2)</td>
<td>3</td>
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<tr>
<td>MEDT 7471</td>
<td>Data Networks for Instruction (2)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

(Key: 1 = must be taken at beginning of program; 2 = taken in middle of program; 3 = taken at end of program.)

Masters students must satisfactorily complete a departmental comprehensive exam and must submit an electronic portfolio.

**Student Mailing Address:**

**E-Mail Address:**

**Phone (H) (W):**

**APPROVED:**

(Advisor Signature) (Date)

(Department Chair Signature) (Date)

**Revised:** 10/06
University of West Georgia - M.Ed. In IT Program - Plan B

Entry Degree: Bachelors  
Exit Degree: M. Ed. (36 hrs. required)  
This degree does not provide media certification.

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<thead>
<tr>
<th>Area II - 3 hrs.</th>
<th>Foundations</th>
<th>Sem. Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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<tbody>
<tr>
<td>PTED 7271</td>
<td>Issues in School Curriculum (P-12) (or an alternate curriculum course approved by advisor) (1, 2, or 3)</td>
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<table>
<thead>
<tr>
<th>Area III - 27 hrs.</th>
<th>Media &amp; Technology</th>
<th>Sem. Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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<tbody>
<tr>
<td>MEDIT 6401</td>
<td>Instructional Technology (if InTech certified, an elective in Media must be substituted) (1)</td>
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<td>MEDIT 6462</td>
<td>Administration of Instructional Technology (1)</td>
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<td>MEDIT 6491</td>
<td>Internship (an elective may be substituted for practicing instructional technologists) (3)</td>
<td>3</td>
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<td>MEDIT 7451</td>
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<td>MEDIT 7468</td>
<td>Introduction to Multimedia (2)</td>
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<td>MEDIT 7470</td>
<td>Videotape Production &amp; Utilization (2)</td>
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One elective approved by advisor

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<th>Area IV - 3 hrs.</th>
<th>Research</th>
<th>Sem. Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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<tr>
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<td>Research Methods in Educational Studies (1, 2, or 3)</td>
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<tr>
<td>EDRS 6301</td>
<td>(OR) Research in Education (on permission of advisor) (1, 2, or 3)</td>
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</tbody>
</table>

The following course is required as a prerequisite if the student has not acquired basic computer skills

<table>
<thead>
<tr>
<th>Course</th>
<th>Introduction to Instructional Technology (1)</th>
<th>Sem. Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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<tbody>
<tr>
<td>MEDIT 2401</td>
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Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Designing and Conducting Staff Development Programs (2)</th>
<th>Sem. Hrs.</th>
<th>Semester</th>
<th>Grade</th>
</tr>
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<tbody>
<tr>
<td>EDELE 8320</td>
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<tr>
<td>MEDIT 7462</td>
<td>Internet Tools, Resources &amp; Issues in Education (2)</td>
<td>3</td>
<td></td>
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<tr>
<td>MEDIT 7465</td>
<td>Materials for Children &amp; Young Adults (2)</td>
<td>3</td>
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<tr>
<td>MEDIT 7466</td>
<td>Digital and 35mm Photography (2)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEDIT 7471</td>
<td>Data Networks for Instruction (2)</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td>MEDIT 7472</td>
<td>Introduction to Distance Education</td>
<td>3</td>
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</tr>
</tbody>
</table>

(Key: 1 = must be taken at beginning of program; 2 = taken in middle of program; 3 = taken at end of program.)
Masters students must satisfactorily complete a departmental comprehensive exam and must submit an electronic portfolio.

Student Mailing Address: ____________________________________________________________

E-Mail Address: ____________________________________________________________

Phone (H) __________________ (W) __________________

APPROVED: ____________________________________________________________
(Advisor Signature) (Date)

(Department Chair Signature) (Date)

Revised: 4/07
Course or Program Addition, Deletion or Modification Request

Department: Media & Instructional Technology  College: College of Education

Current course catalog listing: (for modifications or deletions)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Ed.S. in Media (IT Track)</th>
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<td>□ Other*</td>
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</tbody>
</table>

*Variable credit must be explained

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate  ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Hours:</th>
<th>/</th>
<th>/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
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</tbody>
</table>

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s)

Present or Projected Enrollment: 75  (Students per year)  Effective Date*: Spring  / 2008

☐ Letter Grade  ☐ Pass/Fail  ☐ Other

Grading System:

Approval:

B. McKenney  4/23/07

Department Chair  Date

Dean of College  4/24/07

Dean of College (if cross listed)  Date

Chair of TEAC (if Teacher prep. program)  9/17/00

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee  Date

Chair, Committee on Graduate Studies  Date

Vice President for Academic Affairs  Date

Revised 1/09/02
Rationale

MEDT 7472 is proposed as an elective for students in the MEd (IT track) program, and EdS (IT and Media track) programs. It has not been included in the MEd (Media track) program because that program does not include electives. The emergence of K-12 Virtual Schools in Georgia and other states, as well as the growth of online professional development opportunities available to educators, means many of our students recognize that they may be asked to develop online courses for their students or online professional development sessions for their colleagues. As a result, there is a demand for this course among many of our students.
### University of West Georgia – Online Ed.S. in Media (IT Track) - Plan E

**Entry Degree:** Masters  
**Entry Certification:** None required  
**Exit Degree:** Ed.S. (27 hrs. required)  
**Exit Certification:** No initial or additional certification area. Those entering with T-5 or S-5 will be eligible for a T-5 or S-6

<table>
<thead>
<tr>
<th>Area I – 3 hrs.</th>
<th>Psychology for Classroom Learning</th>
<th>Semester Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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<tbody>
<tr>
<td>CEPD 8102</td>
<td>Life Span Human Development (1, 2, or 3)</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Area II – 18 hrs.</th>
<th>Media &amp; Technology (6 required &amp; 12 elective hrs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>6 required hours in Media &amp; IT. Both courses are required.</td>
</tr>
</tbody>
</table>

| Electives | 12 hours are elected in Media & IT. Select 3 of the following electives. Other electives may be substituted at the discretion of the advisor. |

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
<th>Grade</th>
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<tbody>
<tr>
<td>MEDT 8401</td>
<td>Instructional Technology (2)</td>
<td>3</td>
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<tr>
<td>MEDT 8462</td>
<td>Administration of Instructional Technology Programs (2)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MEDT 7461</td>
<td>Instructional Design (2)</td>
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</tr>
<tr>
<td>MEDT 7462</td>
<td>Internet Tools, Resources and Issues in Education (2)</td>
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<tr>
<td>MEDT 7464</td>
<td>Integrating Technology into the Curriculum (2)</td>
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<tr>
<td>MEDT 7465</td>
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<tr>
<td>MEDT 7466</td>
<td>Digital and 35 mm Photography (2)</td>
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<tr>
<td>MEDT 7467</td>
<td>Web Design for Instruction (MEDT 8401 prerequisite) (2)</td>
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</tr>
<tr>
<td>MEDT 7468</td>
<td>Introduction to Multimedia (MEDT 8401 prerequisite) (2)</td>
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<tr>
<td>MEDT 7469</td>
<td>Supervision of School Library Media Programs (2)</td>
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<td>MEDT 7470</td>
<td>Videotape Production &amp; Utilization (2)</td>
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<tr>
<td>MEDT 7471</td>
<td>Data Networks for Instruction (2)</td>
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<tr>
<td>MEDT 8464</td>
<td>Issues in School Library Media (2)</td>
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</table>

| Area III – 6 hrs. | 6 hours in Research. Both courses are required. |

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
<th>Grade</th>
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<tr>
<td>MEDT 8480</td>
<td>Program Evaluation (3)</td>
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<tr>
<td>MEDT 8484</td>
<td>Research Seminar (3)</td>
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</tbody>
</table>

(Key: 1 = must be taken at beginning of program; 2 = taken in middle of program; 3 = taken at end of program.)

*Ed.S. Students must satisfactorily complete a departmental comprehensive exam and submit an electronic portfolio.*

---

**Student Mailing Address:**

**E-mail Address:**

**Phone (H):**

**Phone (W):**

**APPROVED**

(Advisor Signature)

(Date)

Revised

10/06

(Department Chair Signature)

(Date)
# University of West Georgia – Online Ed.S. in Media (IT Track) - Plan E

**Entry Degree:** Masters  
**Entry Certification:** None required  
**Exit Degree:** Ed.S. (27 hrs. required)  
**Exit Certification:** No initial or additional certification area. Those entering with T-5 or S-5 will be eligible for a T-6 or S-6

<table>
<thead>
<tr>
<th>Area I – 3 hrs.</th>
<th>Psychology for Classroom Learning</th>
<th>Semester Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>CEPD 8102</td>
<td>Life Span Human Development (1, 2, or 3)</td>
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<tr>
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<th>Media &amp; Technology (6 required &amp; 12 elective hrs.)</th>
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<th>Semester</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>6 required hours in Media &amp; IT. Both courses are required.</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Electives</th>
<th>12 hours are elected in Media &amp; IT. Select 4 of the following electives. Other electives may be substituted at the discretion of the advisor.</th>
<th>Semester Hrs.</th>
<th>Semester</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDIT 8401</td>
<td>Instructional Technology (2)</td>
<td>3</td>
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<td>MEDIT 8462</td>
<td>Administration of Instructional Technology Programs (2)</td>
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<tr>
<td>MEDIT 7461</td>
<td>Instructional Design (2)</td>
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</tr>
<tr>
<td>MEDIT 7462</td>
<td>Internet Tools, Resources and Issues in Education (2)</td>
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<td>MEDIT 7464</td>
<td>Integrating Technology into the Curriculum (2)</td>
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<td>MEDIT 7465</td>
<td>Materials for Children &amp; Young Adults (2)</td>
<td>3</td>
<td></td>
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<td>MEDIT 7466</td>
<td>Digital and 35 mm Photography (2)</td>
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<td></td>
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<tr>
<td>MEDIT 7467</td>
<td>Web Design for Instruction (MEDIT 6401 prerequisite) (2)</td>
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<td>MEDIT 7468</td>
<td>Introduction to Multimedia (MEDIT 6401 prerequisite) (2)</td>
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<td>MEDIT 7469</td>
<td>Supervision of School Library Media Programs (2)</td>
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<td>Data Networks for Instruction (2)</td>
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*Key: 1 = must be taken at beginning of program; 2 = taken in middle of program; 3 = taken at end of program.*  
**Ed.S. Students must satisfactorily complete a departmental comprehensive exam and submit an electronic portfolio.**

Student Mailing Address: ________________________________
E-mail Address: ________________________________
Phone (H) ________________________________ (W) ________________________________

**APPROVED**

(Advisor Signature) (Date)

(Department Chair Signature) (Date)

Revised 04/07
Course or Program Addition, Deletion or Modification Request

**Department:** Media & Instructional Technology  
**College:** College of Education

**Current course catalog listing:** (for modifications or deletions)

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</tbody>
</table>
Rationale

MEDT 7472 is proposed as an elective for students in the MEd (IT track) program, and EdS (IT and Media track) programs. It has not been included in the MEd (Media track) program because that program does not include electives. The emergence of K-12 Virtual Schools in Georgia and other states, as well as the growth of online professional development opportunities available to educators, means many of our students recognize that they may be asked to develop online courses for their students or online professional development sessions for their colleagues. As a result, there is a demand for this course among many of our students.
# University of West Georgia – Online Ed.S. in Media
## (School Library Media Track) - Plan F

**Entry Degree:** Masters  
**Entry Certification:** S-5, Media Specialist  
**Exit Degree:** Ed.S. (27 hrs. required)  
**Exit Certification:** S-6

<table>
<thead>
<tr>
<th>Area I – 3 hrs.</th>
<th>Psychology for Classroom Learning</th>
<th>Semester Hrs.</th>
<th>Semester</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEPD 8102</td>
<td>Life Span Human Development (1, 2, or 3)</td>
<td>3</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area II – 18 hrs.</th>
<th>Media &amp; Technology (12 required &amp; 6 elective hrs.)</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>12 required hours in Media &amp; IT: All 4 courses are required.</td>
<td>3</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Electives</th>
<th>6 hours are elected in Media &amp; IT: Select 2 of the following electives. Other electives may be substituted at the discretion of the advisor.</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>MEDT 6401</td>
<td>Instructional Technology (2)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEDT 6462</td>
<td>Administration of Instructional Technology Programs (2)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEDT 7481</td>
<td>Instructional Design (2)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEDT 7452</td>
<td>Internet Tools, Resources and Issues in Education (2)</td>
<td>3</td>
<td></td>
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<tr>
<td>MEDT 7454</td>
<td>Integrating Technology into the Curriculum (2)</td>
<td>3</td>
<td></td>
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<tr>
<td>MEDT 7455</td>
<td>Materials for Children &amp; Young Adults (2)</td>
<td>3</td>
<td></td>
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<tr>
<td>MEDT 7466</td>
<td>Digital and 35 mm Photography (2)</td>
<td>3</td>
<td></td>
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<tr>
<td>MEDT 7457</td>
<td>Web Design for Instruction (MEDT 6401 prerequisite) (2)</td>
<td>3</td>
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<tr>
<td>MEDT 7458</td>
<td>Introduction to Multimedia (MEDT 6401 prerequisite) (2)</td>
<td>3</td>
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<tr>
<td>MEDT 7470</td>
<td>Videotape Production &amp; Utilization (2)</td>
<td>3</td>
<td></td>
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<tr>
<td>MEDT 7471</td>
<td>Data Networks for Instruction (2)</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Area III – 6 hrs.</th>
<th>6 hours in Research: Both courses are required.</th>
<th></th>
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<tbody>
<tr>
<td>MEDT 8480</td>
<td>Program Evaluation (3)</td>
<td>3</td>
<td></td>
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<tr>
<td>MEDT 8484</td>
<td>Research Seminar (3)</td>
<td>3</td>
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</table>

(Key: 1 = must be taken at beginning of program; 2 = taken in middle of program; 3 = taken at end of program.)

Ed.S. Students must satisfactorily complete a departmental comprehensive exam and submit an electronic portfolio.

Student Mailing Address:  
E-mail Address:  
Phone (H) __________________ (W) __________________

**APPROVED**  
(Advisor Signature) _______________ (Date) _______________

(Department Chair Signature) _______________ (Date) _______________

Revised 10/05
**University of West Georgia – Online Ed.S. in Media**  
**(School Library Media Track) - Plan F**

**Entry Degree:** Masters  
**Entry Certification:** S-5, Media Specialist  
**Exit Degree:** Ed.S.  
**Exit Certification:** S-6  
**Required:** 12 required courses are required.

<table>
<thead>
<tr>
<th>Area I (Psychology for Classroom Learning)</th>
<th>Semester Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>CEPD 8102: Life Span Human Development (1, 2, or 3)</td>
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</table>

<table>
<thead>
<tr>
<th>Area II (Media &amp; Technology: 12 required &amp; 6 elective hrs.)</th>
<th>Semester Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>Required</td>
<td>12 required hours in Media &amp; IT. All 4 courses are required.</td>
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<thead>
<tr>
<th>Course</th>
<th>Semester Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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<tbody>
<tr>
<td>MEDT 7469: Supervision of School Library Media Programs (2)</td>
<td>3</td>
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<tr>
<td>MEDT 8461: Diffusion of Innovations (1)</td>
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<tr>
<td>MEDT 8463: Issues in Instructional Technology (1)</td>
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<tr>
<td>MEDT 8464: Issues in School Library Media (2)</td>
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<table>
<thead>
<tr>
<th>Electives</th>
<th>Semester Hrs.</th>
<th>Semester</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 hours are elected in Media &amp; IT. Select 2 of the following electives. Other electives may be substituted at the discretion of the advisor.</td>
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<tr>
<th>Course</th>
<th>Semester Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>MEDT 6401: Instructional Technology (2)</td>
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<tr>
<td>MEDT 6462: Administration of Instructional Technology Programs (2)</td>
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<tr>
<td>MEDT 7451: Instructional Design (2)</td>
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<td>MEDT 7452: Internet Tools, Resources and Issues in Education (2)</td>
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<td>MEDT 7464: Integrating Technology into the Curriculum (2)</td>
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<td>MEDT 7465: Materials for Children &amp; Young Adults (2)</td>
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<td>MEDT 7466: Digital and 35 mm Photography (2)</td>
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<td>MEDT 7467: Web Design for Instruction (MEDT 6401 prerequisite) (2)</td>
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<td>MEDT 7468: Introduction to Multimedia (MEDT 6401 prerequisite) (2)</td>
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<td>MEDT 7470: Videoclase Production &amp; Utilization (2)</td>
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<td>MEDT 7471: Data Networks for Instruction (2)</td>
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<td>MEDT 7472: Introduction to Distance Education (2)</td>
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<thead>
<tr>
<th>Area III (6 hrs.)</th>
<th>Semester Hrs.</th>
<th>Semester</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Required</td>
<td>6 hours in Research. Both courses are required.</td>
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<tr>
<th>Course</th>
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<th>Grade</th>
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<tr>
<td>MEDT 8484: Research Seminar (3)</td>
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*(Key: 1 = must be taken at beginning of program; 2 = taken in middle of program; 3 = taken at end of program.)*

*Ed.S. Students must satisfactorily complete a departmental comprehensive exam and submit an electronic portfolio.*

**Student Mailing Address:**

**E-mail Address:**

**Phone (H) (W) (Advisor Signature) (Date)**

**APPROVED**

**(Department Chair Signature) (Date)**

**Revised**

04/07
### Course or Program Addition, Deletion or Modification Request

**Department:** Media & Instructional Technology  
**College:** College of Education

**Current course catalog listing:** (for modifications or deletions)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
<th>Frequency</th>
<th>Hours: Lecture/Lab/Total</th>
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</thead>
<tbody>
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</table>

**Action**
- [X] Course
- [ ] Program
- [ ] Modify
- [ ] Add
- [ ] Delete

**Credit**
- [X] Undergraduate
- [X] Graduate
- [ ] Other*

**Frequency**
- [X] Every Term
- [X] Yearly
- [ ] Other

*Variable credit must be explained

**Rationale:** To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- [X] Library resources are adequate
- [ ] Library resources need enhancement

---

**Proposed Course Catalog Listing:** (For new courses or for modification)

MEDT 7472 Introduction to Distance Education

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Hours: Lecture/Lab/Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 / 0 / 3</td>
</tr>
</tbody>
</table>

**Catalog Description**

New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies:

This course is a general introduction to conceptual, theoretical, and practical ideas concerning distance education, including the current status of distance learning and its impact on education. Students will become conversant in the terminology of the field of distance education, review its history, conduct research on specific areas of practice, investigate instructional and learning design strategies, explore the technologies commonly used, and understand the unique roles and responsibilities of the distance learner and the distance instructor.

**Prerequisite(s)** None.

**Present or Projected Enrollment:** 25 (Students per year)

**Effective Date**: Spring 2008 Term/Year

**Grading System**:
- [X] Letter Grade
- [ ] Pass/Fail
- [ ] Other

---

**Approval:**

- **Department Chair**: [Signature] 4/23/07
- **Date**: 4/23/07
- **Department Chair (if cross listed)**: Date
- **Dean of College**: [Signature] 6/24/07
- **Date**: 6/24/07
- **Dean of College (if cross listed)**: Date
- **Chair of TEAC (if teacher prep. program)**: [Signature] 9/17/07
- **Date**: 9/17/07

**Final Approval**: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

- **Chair, Undergraduate Academic Programs Committee**: [Signature] 7/25/07
- **Date**: 7/25/07

- **Chair, Committee on Graduate Studies**: [Signature] 7/25/07
- **Date**: 7/25/07

**Vice President for Academic Affairs**: [Signature] 7/25/07

**Date**: 7/25/07

**Revised**: 1/09/02
Rationale

MEDT 7472 (Introduction to Distance Education) will be a new course offering in our program. Technology is fundamentally reshaping the way we deliver education and much more quickly than many people realize. With the number of students enrolled in distance education initiatives across the globe expected to increase by more than 300% in the next five years, it is incumbent upon modern educators to examine aspects of the distance learning environment to determine what approaches, methods, and technologies are most appropriate and effective. This rapid growth is producing a widening impact on all levels of instruction from k-12 to higher education. Such growth is also generating questions about distance education's appropriate application in educational settings as well as its limitations. This course is part of an evolving effort to introduce our students to distance education learning experiences that are soundly rooted in instructional design theory and that are specifically catered to prepare students to teach and to learn in the digital classroom of the 21st century.
MEDT 7472

INTRODUCTION TO DISTANCE EDUCATION

Semester Hours: 3

Semester/Year:

Instructor:

Email:

Fax:

Office Telephone:

Home Telephone:

Office Hours:

Distance Support: http://www.westga.edu/~7Edistance/webct2/help/

Distance Learning Library Services: http://www.westga.edu/~library/depts/offcampus/

Ingram Library Distance Learning Services: http://westga.edu/~library/depts/offcampus/

Ingram Sullivan Ingram Library: http://www.westga.edu/~library/info/library.shtml

COURSE DESCRIPTION

This course is a general introduction to conceptual, theoretical, and practical ideas concerning distance education, including the current status of distance learning and its impact on education. Students will become conversant in the terminology of the field of distance education, review its history, conduct research on specific areas of practice, investigate instructional and learning design strategies, explore the technologies commonly used, and understand the unique roles and responsibilities of the distance learner and the distance instructor.

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. By incorporating the theme “Developing Educators for School Improvement”, the College assumes responsibility for preparing educators who can positively influence school improvement through altering classrooms, schools, and school systems (transformational systemic change). Ten descriptors (decision makers, leaders, lifelong learners, adaptive, collaborative, culturally
sensitive, empathetic, knowledgeable, proactive, and reflective) are integral components of the conceptual framework and provide the basis for developing educators who are prepared to improve schools through strategic change. National principles (INTASC), propositions (NBPTS), and standards (Learned Societies) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to develop educators who are prepared to function effectively in diverse educational settings with competencies that are instrumental to planning, implementing, assessing, and re-evaluating existing or proposed practices. This course’s objectives are related directly to the conceptual framework and appropriate descriptors, principles or propositions, and Learned Society standards are identified for each objective. Class activities and assessments that align with course objectives, course content, and the conceptual framework are identified in a separate section of the course syllabus.

COURSE OBJECTIVES

Students will:

1. demonstrate knowledge, skills, and understanding of concepts related to distance education as they apply to instruction (Ashby, 2002; Huet, Moller, & Young, 2005; Keegan, 1986; Moore, 1989; Palloff & Pratt, 1999, 2003; Porter, 1997; Roblyer, 2001; White & Weight, 2000; Williams, Paprock, & Covington, 2004). (Lifelong Learners; Adaptive; Knowledgeable; Proactive; and Reflective; NBPTS Propositions 1, 2, 3, 4, 5; ISTE/NETS-T F-I.A.)

2. demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging distance education technologies (Downs & Moller, 1999; Driscoll, 1998; Hanna, Glowacki-Dudka, & Conceicao-Runlee, 2000; Keegan, 1986; Palloff & Pratt, 1999, 2003; Porter, 1997; Weiss, Knowlton, & Speck, 2000; White & Weight, 2000; Williams, Paprock, & Covington, 2004). (Leaders; Lifelong Learners; Adaptive; Collaborative; Culturally Sensitive; Knowledgeable; Proactive; and Reflective; NBPTS Propositions 1, 2, 3, 4, 5; ISTE/NETS-T F-I.B.)

3. apply current research on teaching and learning with technology when planning instructional systems as they relate to distance education (Huet, Moller, & Young, 2005; Huet, Moller, & Mortensen, 2005; Keller & Suzuki, 2004; Palloff, & Pratt, 1999, 2003; Sharp & Huet, 2006; Williams, Paprock, & Covington, 2004). (Decision Makers; Leaders; Lifelong Learners; Adaptive; Collaborative; Culturally Sensitive; Empathetic; Knowledgeable; Proactive; and Reflective; NBPTS Propositions 1, 2, 3, 4, 5; ISTE/NETS-T F-II.B.)

4. identify and apply instructional design principles associated with the development of distance education systems (Ashby, 2002; Huet, Moller, & Young, 2005; Keegan, 1986; Moore, 1989; Palloff & Pratt, 1999, 2003; Porter, 1997; Roblyer, 2001; White & Weight, 2000; Williams, Paprock, & Covington, 2004). (Decision Makers; Leaders; Lifelong
design distance education environments that meet the diverse needs of learners and instructors (Ashby, 2002; Downs & Moller, 1999; Huett, Moller, & Young, 2005; Huett, Moller, & Mortensen, 2005; Moore & Anderson, 2003; Moore & Kearsley, 2005; Keegan, 1986; Keller & Suzuki, 2004; Moore, 1989; Schweizer, 1999; Sharp & Huett, 2006; Song, 2000; Weiss, Knowlton, & Speck, 2000; White & Weight, 2000; Williams, Paprock, & Covington, 2004). (Decision Makers; Leaders; Adaptive; Collaborative; Culturally Sensitive; Empathetic; Knowledgeable; Proactive; and Reflective; NBPTS Propositions 1, 2, 3, 4, 5; ISTE/NETS-T F-II.A)

identify and locate technology-based resources and evaluate them for accuracy and suitability for a distance education environment (Hanna, Glowacki-Dudka, & Conceicao-Runlee, 2000; Moore & Anderson, 2003; Moore & Kearsley, 2005; Roblyer, 2001; Schweizer, 1999; Weiss, Knowlton, & Speck, 2000; White & Weight, 2000; Williams, Paprock, & Covington, 2004). (Decision Makers; Leaders; Lifelong Learners; Adaptive; Collaborative; Culturally Sensitive; Empathetic; Knowledgeable; Proactive; and Reflective; NBPTS Propositions 1, 2, 3, 4, 5; ISTE/NETS-T F-II.C.)

plan for the management of distance education instructional resources within the context of learning activities (Ashby, 2002; Huett, Moller, & Young, 2005; Keegan, 1986; Moore, 1989; Palloff & Pratt, 1999, 2003; Porter, 1997; Roblyer, 2001; White & Weight, 2000; Williams, Paprock, & Covington, 2004). (Decision Makers; Leaders; Lifelong Learners; Adaptive; Collaborative; Culturally Sensitive; Empathetic; Knowledgeable; Proactive; and Reflective; NBPTS Propositions 1, 2, 3, 4, 5; ISTE/NETS-T F-II.D.)

plan strategies to manage student learning in a distance education environment (Ashby, 2002; Downs & Moller, 1999; Huett, Moller, & Young, 2005; Huett, Moller, & Mortensen, 2005; Moore & Anderson, 2003; Moore & Kearsley, 2005; Keegan, 1986; Keller & Suzuki, 2004; Moore, 1989; Schweizer, 1999; Sharp & Huett, 2006; Song, 2000; Weiss, Knowlton, & Speck, 2000; White & Weight, 2000; Williams, Paprock, & Covington, 2004). (Decision Makers; Leaders; Lifelong Learners; Adaptive; Collaborative; Culturally Sensitive; Empathetic; Knowledgeable; Proactive; and Reflective; NBPTS Propositions 1, 2, 3, 4, 5; ISTE/NETS-T F-II.E.)

apply multiple methods of evaluation to determine appropriate use of distance education systems (Hanna, Glowacki-Dudka, & Conceicao-Runlee, 2000; Huett, Moller, & Mortensen, 2005; Moore & Anderson, 2003; Moore & Kearsley, 2005; Roblyer, 2001; Schweizer, 1999; Weiss, Knowlton, & Speck, 2000; White & Weight, 2000; Williams, Paprock, & Covington, 2004). (Decision Makers; Leaders; Lifelong Learners; Adaptive; Collaborative; Culturally Sensitive; Empathetic; Knowledgeable; Proactive; and Reflective; NBPTS Propositions 1, 2, 3, 4, 5; ISTE/NETS-T F-IV.C.)
TEXTS, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text:


COURSE PREREQUISITES AND SOFTWARE

This course will be delivered entirely at a distance with no face-to-face meetings (FTF). The following are the minimum requirements for completing this class successfully. You must meet these requirements to participate in the class.

- Access to a personal computer (PC or MAC) with speakers and a microphone to complete the course work (Wimba Live Classroom).
- High-speed internet service (DSL, Cable, etc.) is strongly recommended. If high-speed internet is not available in your area, contact your instructor immediately. Completion of course requirements will be very difficult and cumbersome without high-speed service.
- Software requirements: Microsoft Office 2003 (available for free at UWG), Adobe Reader, Yahoo Messenger, and other potentially required downloads listed in WebCT Vista.

References


**ACTIVITIES AND ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING POLICY**

**Link to Conceptual Framework**

The focus of this course is on a general introduction to many conceptual, theoretical, and practical concepts concerning distance education. In addition to distance education theory, students will create a distance education instructional design plan, use the plan to build a distance learning module, and conduct research on current distance education topics and/or design an interactive tutorial for the distant classroom. The overall evaluation for this course is structured on completing individual readings as well as the quizzes and assignments detailed below. Due to the broad nature of the course, each conceptual framework descriptor is covered in the various course assignments. As students complete their assignments, they will have demonstrated achievement in the areas of decision making: selecting topic areas in the student’s field of study to design and develop an online learning module and interactive tutorial (course activities 1.0, 2.1-2.2, 3.1-3.4b); leadership: enhancing his/her knowledge and skills in distance education in order to integrate technology more extensively on the job, at a distance, and to assist others as needed (course activities 1.0, 2.1-2.2, 3.1-3.4a-c); lifelong learning: studying how to integrate technology into the work place and distant environment (course course activities 1.0, 2.1-2.2, 3.1-3.4a-c); being adaptive: changing educational practices to meet the needs of distance learners (course activities 2.1-2.2, 3.1-3.4a-c); collaboration: working with colleagues and stakeholders to plan and carry out school improvements in technology (course activities 1.0, 2.1-2.2, 3.1-3.4a-c); cultural
sensitivity: adapting interventions and technology innovations to meet the needs of diverse distance learners (course activities 2.1-2.2, 3.1-3.4a-c); empathy: demonstrating sensitivity to the needs of individual, family, and community needs (course activities 1.0, 2.1-2.2, 3.1-3.4a-c); knowledge: drawing on pedagogical, content, and professional knowledge, including knowledge from others' postings in the online bulletin board when developing distance education systems (course activities 1.0, 2.1-2.2, 3.1-3.4a-c); being proactive: implementing new interventions and innovations in technology to better serve distance learners (course activities 1.0, 2.1-2.2, 3.1-3.4a-c) and reflection: engaging in ongoing, continuous reflection related to technology to determine the effectiveness of interventions/innovations and school changes that are needed to more effectively integrate technology into the curriculum both local and distant (course activities 1.0, 2.1-2.2, 3.1-3.4a-c).

Activities and Assessments:

1.0 Class Participation (20 points)

Students will participate in the Wimba Live Classroom session(s) scheduled in WebCT Vista and be prepared for the class. Absence from Wimba session(s) or noted absence of participation may lower a student’s cumulative point total by 10 points. Virtual conference sessions with outside experts in the field of distance education will be scheduled. When these conferences are scheduled, it is expected that students will prepare, attend, and ask questions. Scheduling and requirements will be posted in WebCT Vista. (Objectives 1, 2, 3, 4, 5, 6, 7; disposition; teacher observation)

2.0 Weekly Work

2.1 Discussions (6 weeks @ 5 points each = 30 points)

- Most weeks the student will respond to a discussion prompt provided by the instructor. With a few exceptions, the student is expected to make an initial posting on or before Wednesday of that week and follow up with remaining postings during the week. Students are expected to read and participate in all online discussions. Each discussion (except where noted elsewhere) is worth 5 points. You are required to post your initial thoughts (3pts) and respond to AT LEAST two other postings (2pts). A reflective response includes new information, personal perspectives, or other input that shows thought and consideration of the issue. It goes beyond simple agreement or endorsement of responses that have already been posted. (Course Objectives 1, 2, 3, 4; Teacher Observation, WebCT Vista DB postings, Online discussions)

2.2 Quizzes (40 points)

- There will be a short quiz of no more than ten questions made available though WebCT Vista on each week’s readings. Please consult the course schedule for reading assignments. (Course Objectives 1, 2, 3, 4, 5; WebCT Vista Quizzes)
3.0 Student Work

All student work submitted during the course is required to be original. All projects must be completed to be graded. It is strongly recommended that you begin work on ALL of the projects as soon as possible. Do not rely solely on the suggested schedule to tell you when to start and finish these projects. Please work early and often!

3.1 Project 1: Chapter Concept Map (15 points)

The student will create a concept map using the software tool of their choice (Inspiration, Word, Cmap Tools, etc.) to visually illustrate associations and relationships between the ideas presented in the assigned chapter from the text. Upon completion of the concept map, the student will write a brief 1-2 page scenario/plan that outlines how the information presented in the chapter could best be delivered through a web-based delivery system. The student must post the concept map and scenario to the appropriate discussion forum AND to the WebCT Vista Assignment Dropbox for grading. Additional guidelines for this assignment are posted in WebCT Vista (Course Objectives 1, 3, 4, 5, 6, 8; rubric).

3.2 Project 2: Distance Education Instructional Design Plan (15 points)

The student will create an instructional design plan for one module of online instruction concerning the topic of the student’s choosing. The module is to consist of at least one week of instruction, to be delivered entirely online, and to address five major components: module design, interactivity and collaboration, use of technology, assessment, and learner support. Additional guidelines for this assignment are posted in WebCT Vista (Course Objectives 1, 3, 4, 7, 8; rubric).

3.3 Project 3: Hands-on Creation of Learning Module in WebCT Vista (30 Points)

The student will create a learning module in WebCT Vista following the design plan developed for Project 2. Upon completion of the module, the student will also review at least one other student’s module, complete the work in the module (where appropriate), and offer suggestions for improving the content. The student will post a review in the appropriate forum in WebCT Vista (Course Objectives 1, 2, 3, 4, 5, 6, 7, 8; rubric).

***If you desire, you may work in teams of no more than 3 for the design and development components of Projects 3.2 & 3.3 (the review aspect of 3.3 must be completed individually). If you choose to do this, you must inform me beforehand, and you will be required to complete a confidential analysis of each group member’s level of participation.***

3.4 Project 4: Choose One of the Following

a. Distance Education Literature Review Paper (15 Points)
The student will develop and submit a 6-10 page, well-written literature review on an issue concerning distance education research found in Chapter 3 of the text or another distance education topic of the student’s choice (cleared with instructor). This paper will strictly adhere to APA guidelines. Additional guidelines for this assignment are posted in WebCT Vista (Objectives 1, 2, 4, 5; knowledge, skills, disposition; teacher observation).

b. Interactive Tutorial (15 points)

The student will create a video podcast (or otherwise interactive presentation) that will serve a training purpose (e.g. a tutorial) or a support function for an online lesson (e.g. a video lecture cast) for the distant classroom. For instance, if you were interested in having teachers use digital portfolios or digital storytelling as an alternative to objective tests you could create a training video, presentation or an interactive website that will instruct teachers how to use this innovation in a DISTANCE education setting. If you are creating a lesson on Shakespeare’s Globe Theater, you could deliver a lecture and/or interactive PowerPoint using a program like MovieMaker to highlight important concepts. You may not use any assignment from a previous class. This assignment is designed for those of you who are enthusiastic about demonstrating a piece of technology you think aids in instructional delivery in the distance class. Some examples of advanced distance technologies include but are certainly not limited to: podcasts, video-casts, programs like MovieMaker, Camtasia, Dreamweaver, Flash, Photoshop, Yahoo Messenger, Skype, learning management systems like WebCT, BlackBoard, Moodle, etc. You are encouraged to explore any advanced technology that you think could and should be used to enhance instruction in an online class. Additional guidelines for this assignment are posted in WebCT Vista (Objectives 1, 2, 3, 4, 5, 6, 8; knowledge, skills, disposition; teacher observation).

Extra Credit (5 points)

Read Thomas Friedman’s The World Is Flat (updated and expanded 2006 version). I have chosen this book because I think it does a very effective job of explaining how technology is radically changing our world, and the way we conduct business and education in an “easily digestible” manner. I consider it a great read for anyone interested in technology education. For this extra credit assignment, you will examine one or more of Friedman’s “flatteners” (or other salient observations) and give your opinion about its potential effect on education generally and distance education specifically. There is no minimum or maximum page limit requirement for this assignment. Just do a thorough analysis.

Evaluation Procedures
Students are evaluated in the following areas:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total Points</th>
<th>Type of Assessment</th>
<th>Due Dates/Location</th>
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<tbody>
<tr>
<td>1 Class Participation</td>
<td>20</td>
<td>Teacher Observations</td>
<td>On-going</td>
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<tr>
<td>2.1 Weekly Discussions</td>
<td>30</td>
<td>Teacher Observations</td>
<td>On-going</td>
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<td>2.2 Weekly Quizzes</td>
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<td>Observations</td>
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<td>3.3 WebCT Vista Learning Module</td>
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<td>3.4 Project 4 (Varies)</td>
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**GRADING SCALE:**

A = 165-148 Points  
B = 147-131 Points  
C = 130-115 Points  
P = Below 114 Points

**CLASS POLICIES**

1. **Submitting Assignments**
   
   Students are expected to submit assignments on time. All components must be completed to receive a grade. Valid reasons for submitting work late must be cleared by the professor in advance. It is the student’s responsibility to contact the professor when extenuating circumstances take place. Points will be deducted for each day an assignment is late. Late online assignments such as discussion board postings will also result in grade reduction. All assignments are due by midnight on the date due. Any assignments posted after midnight are considered late. Each assignment in WebCT Vista has a due date and a cut-off date. The cut-off date is one week after the due date. For instance, if an assignment is due January 22nd, the final cut-off date is January 29th. After January 22nd, the assignment is “late.” After January 29th, the assignment is GONE. No assignments more than 1 week late will be accepted.

2. **Professionalism**
   
   Students are expected to conduct themselves professionally. This is an essential quality for all professionals who will be working in the schools. All students are expected to display a positive attitude. Professionalism includes but is not limited to the following:

   - Participating in interactions and class activities in a positive manner.
   - Collaborating and working equitably with students in the class.
   - Actively participating in class each week.
   - Turning in assignments on time.
   - Arriving at and leaving scheduled *Wimba Live Classroom* and/or other virtual classes punctually.
   - Treating class members, professor, and colleagues with respect in and out of the classroom.
   - Eliminating interruptions in class.
Students who display a lack of professionalism will be contacted by the instructor immediately after class when violations take place and informed of the consequences. If there is a second violation the student will meet with a departmental committee and may be dismissed from the program for at least one year.

ACADEMIC HONESTY

Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest Connection and Student Handbook and the Graduate Catalog.

Disciplinary procedures described in the latest University of West Georgia Connection and Student Handbook will be followed when violations take place. Infractions may include cheating, plagiarism, disruptive behavior, and disorderly conduct.

DISABILITY STATEMENT

I pledge to do my best to work with the University to provide all students with equal access to my classes and materials, regardless of special needs, temporary or permanent disability, special needs related to pregnancy, etc.

If you have any special learning needs, particularly (but not limited to) needs defined under the American Disabilities Act, and require specific accommodations, please make these known to me, either directly, or through the Coordinator of Disability Services, Dr. Ann Richards.

Students with documented special needs may expect accommodation in relation to classroom accessibility, modification of testing, special test administration, etc. This is not only my personal commitment, it is your right, and it is the law!

COMMUNICATION STATEMENT

Official university communication to students is through campus e-mail (myUWG). Be sure to access this several times a week to keep up-to-date on important information.

EXTRA CREDIT STATEMENT

Extra credit activities (other than what is listed above) may be offered in this course. If so, details will be made available in WebCT Vista.

STATEMENT ON DUAL SUBMISSION
Coursework that has been completed or will be completed in another course that duplicates or dovetails with an assignment in this course may not be submitted unless prior approval is granted by the instructor. If you foresee this possibility, contact the instructor as soon as possible to request approval for dual submission.
CLASS OUTLINE

This class is delivered using WebCT Vista at https://u.view.usg.edu/webct/entryPage.dowebct.

There will be NO face-to-face meetings in which students are expected to be participants. Students are expected to use WebCT Vista for corresponding with each other and the instructor.

Assignments: Work will be submitted using the assignments feature, discussion board, or testing feature of WebCT Vista. Please follow the directions in WebCT Vista.

Tentative Class Schedule

**IF THERE IS ANY CONFLICT BETWEEN WHAT IS PRESENTED HERE AND WHAT IS SEEN IN WebCT VISTA, VISTA TAKES PRECEDENCE!**

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<th>Class</th>
<th>Activities</th>
<th>Assignment/Readings Due</th>
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<tr>
<td>Module 1</td>
<td>Online Introductions</td>
<td>Discussion Posting 1 (Introductions)</td>
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<td>Concept Map chapter assigned</td>
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<td>Quiz: Online Learning—Chapters 6 &amp; 7</td>
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<td>Module 6 Discussion</td>
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<td>(Weeks 11 &amp; 12)</td>
<td>Online Learning: Chapter 8 &amp; 9</td>
<td>Quiz: Online Learning—Chapters 8 &amp; 9 Project 3 DUE</td>
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<td>Module 7</td>
<td>Finish all outstanding work</td>
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<td>(Weeks 13-16)</td>
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<td>Project 4 DUE</td>
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Course or Program Addition, Deletion or Modification Request

Department: Physical Education & Recreation  College: College of Education

Current course catalog listing: (for modifications or deletions)

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<td>☑ Deactivate</td>
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Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate  ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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</table>

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s)

Present or Projected Enrollment:  (Students per year)

*For a new course, one full term must pass between approval and effective date.

Grading System: ☑ Letter Grade  ☑ Pass/Fail  ☐ Other

Effective Date*: Spring  2008

Approval:

Department Chair

Date

Dean of College

Date

Chair of TEAC (if teacher prep. program)

Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee

Date

Chair, Committee on Graduate Studies

Date

Vice President for Academic Affairs

Date

Revised 1/09/02
Department of Physical Education and Recreation
Rationale for the Deactivation of the Master of Education (M.Ed.) Program in Physical Education
June 29, 2007

Background
The Master of Education (M.Ed.) program intends to quality graduate students for the T-5 certificate to teach health and physical education at all grade levels. The program aims to develop the basic teaching skills of health and physical education teachers so that they become master teachers. Students who do not hold T-4 certification yet aspire to be health and physical education teachers are admitted to the program “provisionally”, and complete the requirements for initial certification while they complete the graduate coursework. Certification and the graduate degree are awarded concurrently. Of the 14 students currently active in the masters' program, eight are following the certification route. This route in increasing in popularity.

This graduate program has been characterized by low enrollment for the past several years. The curriculum is outdated and lacks focus. Increasingly, potential students are opting for alternative and on-line programs over this traditional, campus-based masters degree. The certification program requires a cumbersome schedule of daytime and evening classes plus traditional field experiences. Further, this 72-hour combination program is less attractive than the 60-hour programs at other campuses. Finally, teachers are increasingly becoming certified to teach health and physical education through the “test only” option, approved by the PSC in 2006. These teachers lack the philosophical and scientific background to be successful in the current graduate program.

Deactivation Request
The Department of Physical Education and Recreation is requesting permission to deactivate the Master of Education (M.Ed.) Program in Physical Education. The final “cohort” of students will enter the program in Fall 2007, with courses sequenced so that they will complete their graduate and certification requirements in Summer 2008. Department faculty are conducting a market analysis of professionals in the fields of physical education, recreation, and health in our service area in order to recommend a modified degree with, perhaps, a common core and multiple tracks. This degree will be market-sensitive, more accessible to students, more rigorous, and a better use of department resources. We expect to reactivate the revised M.Ed. degree in 2008-09.
Deactivation Defined
Educational programs, degrees, or majors may be deactivated (suspended) to allow for program review, to consider enrollment problems, to deal with faculty shortages, or for other similar reasons. Presidents can temporarily deactivate educational programs for a period not to exceed two academic years, without obtaining Board approval, and may subsequently reinstate the program within that period. A deactivated (suspended) program remains an authorized program at the institution, but new students are no longer permitted to enroll. Deactivated programs are not listed in the college bulletin (Board of Regent (BOR) Policy Manual 306.02 and Section 2.03.03: Deactivation and Termination of the BOR Academic Affairs Handbook).
Course or Program Addition, Deletion or Modification Request

Department: Physical Education & Recreation

College: College of Education

Current course catalog listing: (for modifications or deletions)

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<th>Prefix</th>
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☐ Course ☑ Program

☐ Modify ☐ Add ☐ Delete

☐ Credit
☐ Number
☐ Title
☐ Description
☐ Other
☐ Deactivate

☐ Undergraduate
☐ Graduate
☐ Other

*Variable credit must be explained

☐ Every Term
☐ Yearly
☐ Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate
☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

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Catalog Description (New courses must attach course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s)

Present or Projected Enrollment: (Students per year)

☐ Letter Grade ☐ Pass/Fail ☐ Other

*For a new course, one full term must pass between approval and effective date.

Effective Date*: Spring / 2008

Grading System: ☐ Letter Grade ☐ Pass/Fail ☐ Other

Approval:

[Signatures and dates]

Department Chair (if cross listed) Date

Dean of College (if cross listed) Date

Chair of TEAC (if teacher prep. program) Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and to Committee on Graduate Studies Chairman for copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit.

Chair, Undergraduate Academic Programs Committee Date

Chair, Committee on Graduate Studies Date

[Signatures and dates]

Vice President for Academic Affairs Date

Revised 1/09/02
Department of Physical Education and Recreation
Rationale for the Deactivation of the Education Specialist (Ed.S.) Program in Physical Education
June 29, 2007

Background
The Education Specialist (Ed.S.) program is an advanced program of study designed for experienced health and physical education educators. This graduate program, currently with four active students, has been characterized by low enrollment for the past several years. Department faculty agree that the current curriculum is outdated and lacks focus and substance. Too often, course substitutions have been necessary because of infrequent course offerings and rapid turnover of graduate faculty.

Deactivation Request
The Department of Physical Education and Recreation is requesting permission to deactivate the Education Specialist (Ed.S.) Program in Physical Education. The final “cohort” of students entered the program in Summer 2007, with courses sequenced so that they will complete their graduate and certification requirements in Summer 2008. Department faculty are conducting a market analysis of health and physical educators in our service area in order to determine the need and demand for a degree at this level. Increasingly, health and physical educators are pursuing specialist degrees in leadership, which they view as providing more professional options. Further, competition is increasing from on-line and alternative degree programs which students perceive as more convenient and less demanding. If the degree is revised and reactivated, it will be market-sensitive, more convenient and accessible to students, more focused and linked to professional leadership opportunities (including intern supervision), and a better use of department resources. Degree reactivation would occur within two years.

Deactivation Defined
Educational programs, degrees, or majors may be deactivated (suspended) to allow for program review, to consider enrollment problems, to deal with faculty shortages, or for other similar reasons. Presidents can temporarily deactivate educational programs for a period not to exceed two academic years, without obtaining Board approval, and may subsequently reinstate the program within that period. A deactivated (suspended) program remains an authorized program at the institution, but new students are no longer permitted to enroll. Deactivated programs are not listed in the college bulletin (Board of Regent (BOR) Policy Manual 306.02 and Section 2.03.03: Deactivation and Termination of the BOR Academic Affairs Handbook).
# Course or Program Addition, Deletion or Modification Request

**Department:** Physical Education & Recreation  
**College:** College of Education

**Current course catalog listing:** (for modifications or deletions)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Non-Degree Initial Certification Program in Physical Education</th>
<th>Hours: Lecture/Lab/Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Action**  
- □ Course  
- □ Program  
- □ Modify  
- □ Add  
- □ Delete  

**Credit**  
- □ Undergraduate  
- □ Graduate  
- □ Other*  

*Variable credit must be explained

**Frequency**  
- □ Every Term  
- □ Yearly  
- □ Other

**Rationale:** To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

- □ Library resources are adequate  
- □ Library resources need enhancement

**Proposed Course Catalog Listing:** (For new courses or for modification)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course</th>
<th>Title</th>
<th>Hours: Lecture/Lab/Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Catalog Description** (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

**Prerequisite(s)**

**Present or Projected Enrollment:** (Students per year)  
*For a new course, one full term must pass between approval and effective date.*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Effective Date*</th>
<th>Spring 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Term/Year</td>
<td></td>
</tr>
</tbody>
</table>

**Grading System:**  
- □ Letter Grade  
- □ Pass/Fail  
- □ Other

**Approval:**

- Department Chair:  
  - Signature: □  
  - Date: 7/12/07

- Department Chair (if cross listed):  
  - Signature: □  
  - Date:

- Dean of College:  
  - Signature: □  
  - Date: 8/13/007

- Dean of College (if cross listed):  
  - Signature: □  
  - Date:

- Chair of TEAC (if teacher prop. program):  
  - Signature: □  
  - Date: 9/17/007

**Final Approval:** Submitted by College Dean to Undergraduate Academic Programs Chair and to Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

- Chair, Undergraduate Academic Programs Committee:  
  - Signature: □  
  - Date:

- Chair, Committee on Graduate Studies:  
  - Signature: □  
  - Date:

**Vice President for Academic Affairs**  
- Signature: □  
- Date:

Revised 1/09/02
Department of Physical Education and Recreation  
Rationale for the Deactivation of the Non-Degree Initial Certification Program in Physical Education  
June 29, 2007

**Background**
While in the distant past this non-degree initial certification program may have been attractive to students, in the past five years, only one student has been admitted to this program. The program requires 66 hours of professional content in addition to appropriate prerequisites, such as Anatomy and Physiology I and II, and First Aid/CPR. Program length, coupled with the fact that courses are offered during the day and the length of the field experience, make the degree no longer desirable to students or to the department. Further, with the “test only” route to certification in physical education adopted in 2006 by the PSC, it is unlikely that demand for this cumbersome route to initial certification will reappear in the future. A better route to certification in health and physical education, with respect to time and quality, is department’s program that, in 72 hours, leads to a masters’ degree and initial certification. This program, which currently enrolls eight students, is increasing in demand.

**Deactivation Request**
The Department of Physical Education and Recreation is requesting permission to deactivate the Non-Degree Initial Certification Program in Physical Education. Students seeking initial certification can obtain certification through the masters’ degree with certification option. This combination program is currently under review to make it more accessible to students, to update the content, and to tighten the scope and sequence of coursework and field experiences.

Students who inquire about initial certification are apprised of the masters with certification option, and opt to pursue that course of study. Currently, no students are enrolled in the certification –only program option. We request that this program be deactivated at the campus and Board of Regents level, and removed as a program option at the University of West Georgia.
● April 23, 2003
● July 16, 2003
● October 15, 2003
● November 19, 2003
● January 28, 2004
● February 11, 2004
● March 31, 2004
● April 14, 2004
● July 21, 2004
● October 15, 2004
● November 17, 2004
● December 8, 2004
● February 16, 2005
● April 20, 2005
● July 13, 2005
● July 27, 2005
● September 14, 2005
● November 16, 2005
● January 18, 2006
● March 15, 2006
● April 12, 2006
● April 27, 2006
● July 20, 2006
● September 20, 2006
● October 18, 2006
● November 15, 2006
● January 17, 2007
● February 21, 2007
● March 14, 2007
● April 18, 2007
● July 25, 2007
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