Neuroscience of Active Learning Graduate Independent Study
BIOL 6981 – Fall 2019
SYLLABUS - Dr. Melissa Cavallin Johnson
mcavalli@westga.edu
678-839-4043

Office Hours: Face-to-Face Meetings: M & T 11 am-12:30 pm; F & other times by appointment Biology Building Room #215 (located in Office Suite Room #210)

Online Office Hours: M-F available by appointment via Blackboard Collaborate Ultra online chatroom (link provided in all modules on CourseDen).

At other times, I am available through CourseDen email and general discussion board, see response times below under contact information.

Prerequisites: enrollment in a graduate program (M.S. in Biology preferred)

Contact Information:
To maintain consistent communication, please use the email system located within CourseDen for all course related questions. I will check CourseDen at least once in the morning and once in the evening Monday-Friday. In case of emergency, you may email my westga.edu account located at the top of the syllabus. I will respond to your emails within 48 hours (or less) Monday-Friday. Emails received on weekends and holidays will be answered starting at 8 am on the following business day, e.g. Monday morning following a weekend. You may also ask questions to me and your classmates via the General Discussion Board on CourseDen, and I will answer discussion board posts following the timeline provided for email communication.

Communication Etiquette:
Communication in an online environment takes special considerations. Do not use acronyms or text message abbreviations. Be careful what you say to someone on the discussion tool because everyone in the class will see it, and it cannot be retracted! Please abide by the following netiquette rules:

- Be sensitive and reflective to what others are saying.
- Do not use all caps. It is equivalent to screaming.
- Do not post outbursts of extreme emotion or opinion. Be respectful of the opinions of others.
- Think before you hit the post (enter/reply) button. You cannot take it back!
- Do not use offensive language.
- Use clear subject lines.
• Be forgiving. Anyone can make a mistake.
• Keep the dialog collegial and professional.

General communication etiquette with Dr. Johnson or any of your professors:

• When in doubt about how you should speak, write, or act, always err on the side of formality. You will never offend or annoy someone by being overly formal and polite.
• While you are in college, your coursework is your job. You should behave as you would in a professional work environment.
• When addressing your professors in person:
  o Always address them as "Professor Smith" or "Dr. Smith."
  o Do not call them by their first names or anything else unless they explicitly ask you to do so.
• When writing an email to your professor:
  o Begin the email with "Dear Professor Smith," "Dear Prof. Smith," or "Dear Dr. Smith." Do not begin the email "Hi" without addressing your professor by their title and surname.
  o Write in complete sentences with correct spelling, grammar, and punctuation.
  o Proofread your email before sending it.
  o Be alert to the tone of your message. Any email to a professor or teaching assistant should sound like a formal letter, not a text message or a demand to a customer service representative.
    o For example, you should write:

    Dear Professor Smith,

    I cannot come to your office hours this week. Are you available at any time on Monday instead?

    Sincerely,
    Jane

    o Do NOT write:

    Hi,
    I need to talk to you about the test. Can I come by Mon? Thx Jane

    o Do NOT write:

    Hello,
    I'm a senior and I need your class to graduate. BanWeb says I need permission. I need you to enroll me immediately.
    Jane
Required Course Materials:

Textbook: Neuroscience Online (free online interactive textbook) provided by The University of Texas Health Sciences Center at Houston at the following link: https://nba.uth.tmc.edu/neuroscience/toc.htm

Journal Articles: you will find 3+ primary research journal article(s) to use in your research paper

Online Course Resource Access: CourseDen

Computer Software:
- MS Word (available in all campus computer labs; free to all UWG students through the ITS Student Helpdesk for personal computers)
- Adobe Reader for pdf files (available as free download from https://get.adobe.com/reader/)

Description of Course:

This course is designed to improve students’ skills for reading scientific literature (primary research articles), independent research skills of finding relevant scientific sources, and written discussion of the material covered in the independently researched sources. Material to be discussed in this course is related to the normal function of the nervous system and behavior to assess the validity of active learning practices.

Course Objectives:

1. Describe the normal processes of learning and memory from a nervous system standpoint.
2. Describe how traditional lecture learning and active learning practices promote and/or prohibit learning and memory.
3. Critically read and analyze primary scientific literature, i.e. journal articles and other independently researched supplemental sources.
4. Develop written research paper based on textbook readings and primary scientific literature to strengthen written communication of scientific concepts.

Expectations: This course is conducted as an online course via CourseDen, with weekly meetings with Dr. Johnson as needed to discuss material and answer questions. You are responsible for logging into the course on CourseDen on a regular basis--logging in daily is strongly encouraged. Watch the announcements, calendar, and presentation schedules closely for specific information and deadlines for assignments.

The research paper assignment will be due by 11:59 pm on November 20, 2019. The General Discussion board is your tool to interact with Dr. Johnson to receive help with the material that is unclear to you while you are working through the tasks in the course.
It is the student’s responsibility to research, read, and review assigned readings and other independently researched supplemental sources in order to write a cohesive literature review research paper.

**UWG Policies:**

All Students Please Note!

For important policy information, i.e., the UWG Honor Code, Email, and Credit Hour policies, as well as information on Academic Support and Online Courses, please review the information found in the Common Language for Course Syllabi documentation at https://www.westga.edu/administration/vpaa/common-language-course-syllabi.php

Additions and updates are made as institution, state, and federal standards change, so please review it each semester. A few of the policies are outlined briefly below.

**Accessibility Services and ADA:** In terms of the Americans with Disabilities Act, Accessibility Services in the Counseling Center will help you understand your rights and responsibilities and assist you with requesting and arranging accommodations. If you need adaptations or accommodations because of a disability or chronic illness, please email me a copy of your eSAR from Accessibility Services in the Counseling Center by the end of the first full week of class. **NO** accommodations will be given to a student who has not provided me an eSAR.

**Fair Use:** The materials in this course and on the online course resources (CourseDen) are only for the use of members enrolled in this course for the purposes associated with this course and may not be retained or further disseminated.

**University of West Georgia Honor Code and Academic Integrity:** All students are expected to uphold the standards of academic integrity as outlined in the University’s Honor Code located in the UWG Student Handbook (https://www.westga.edu/administration/vpsa/handbook-code-of-conduct.php). Be sure to properly cite and paraphrase sources in your assignments and exams to avoid plagiarism. The professor has the discretion of deciding the proper course of action based on the severity of the offense. **All** offenses will result in the student receiving a grade of zero for the assignment in question. Further penalties, such as failing the entire course, will be issued as warranted on a case-by-case basis. **All** offenses and penalties will be reported to the Department Chair and the Office of Academic Affairs.

**Campus Carry:** The link for the campus policy on Campus Carry may be found at: https://www.westga.edu/police/campus-carry.php
Extra Credit: There will be no extra credit offered in this course.

Grading Policy & Rubrics:

Assignments & Point Values:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Paper</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>90</td>
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</tbody>
</table>

Course Grade Calculation:

To determine your grade in the class, you will divide the number of points that you earned for all of the assignments by the total number of points possible (90). The following tables give you the range of points that you will need to earn for each letter grade.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>89.5-100%</td>
<td>80.6-90</td>
</tr>
<tr>
<td>B</td>
<td>79.5-89.4%</td>
<td>71.6-80.5</td>
</tr>
<tr>
<td>C</td>
<td>69.5-79.4%</td>
<td>62.6-71.5</td>
</tr>
<tr>
<td>F</td>
<td>0-69.4%</td>
<td>0-62.5</td>
</tr>
</tbody>
</table>

Assignment Grading & Rubrics:

Late Assignments:
Late assignments will receive a 5 point deduction per day after the deadline for the assignment. This means that an assignment with is 24 hours or less late will lose 5 points, 24-48 hours late will lose 10 points, etc.

Research Paper:
You will be responsible for a cohesive research paper based on textbook reading material and independently researched supplemental sources. The assignment

- **Research Paper Format:**
  - 2000-2500 words (not including reference list)
  - 12 point font (Arial or Times New Roman preferred)
  - Double-spaced with 1 inch margins
  - No abstract
  - No title page
  - Proper paraphrasing and original source citations are required. **No direct quotations longer than 5 words** from original sources are allowed. Citations in AMA style (see resources in Course Overview, Policies, and Resources module on CourseDen for tools to aid you with AMA style)

- **Research Paper Assignment Criteria:**
  - Write a research paper with a logical organization of ideas addressing neuroscience of active learning following the specific topic criteria below. Simply writing the answers to the bullets below without organizing them into appropriately ordered paragraphs with meaningful transitions from one idea to the next is not sufficient and will result in a poor score for the Theme section of the assignment rubric located at the end of the assignment instructions.
  - Describe the normal processes of learning and memory as functions of the nervous system.
  - Describe the components of traditional (lecture-based) learning practices.
  - Describe the components of active (hands-on) learning practices.
  - Describe how the two learning styles promote and/or prohibit learning and memory based on neuroscience and education research data.
  - Incorporate at least 3 additional sources (primary research journal articles preferred) that discuss learning and memory processes, the learning practices, and/or case studies assessing the validity of the learning practices.
  - An introduction and conclusion paragraph should be included in your research paper. You may use headings within your essay, but make sure that you use appropriate transitions to maintain flow of the paper.
  - Finally, you should describe your conclusions about the benefits of active learning practices based on your research and the textbook readings. This may include where you think more research is needed to fully understand the how active learning practices relate to learning and memory processes in the nervous system.
### Research Paper Rubric:

<table>
<thead>
<tr>
<th>Points Rating Scale</th>
<th>Score</th>
</tr>
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<tbody>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
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<tr>
<td>5</td>
<td></td>
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<tr>
<td>0</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme</th>
<th>Well organized, demonstrates logical sequencing and structure (11-15 points possible).</th>
<th>Well organized, but demonstrates illogical sequencing or structure (6-10 points possible).</th>
<th>Weakly organized with no logical sequencing or structure (1-5 points possible).</th>
<th>No organization, sequencing, or structure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background/Foundation</td>
<td>All parts of the assignment are addressed and detailed conclusions are reached from the evidence offered (11-15 points possible).</td>
<td>All parts of the assignment are not addressed or minimal conclusions are reached from the evidence offered (6-10 points possible).</td>
<td>All parts of the assignment are not addressed and minimal conclusions are reached from the evidence offered (1-5 points possible).</td>
<td>All parts of the assignment are not addressed and no conclusions are reached from the evidence offered.</td>
</tr>
<tr>
<td>Inclusion of 3+ additional source(s) found through independent research &amp; citations as appropriate</td>
<td>3 or more current research articles are included in the discussion and all information in the summary is cited within the text appropriately (if necessary) in AMA format (11-15 points possible).</td>
<td>Missing 1 additional source included in the discussion or all information in the summary is cited within the text appropriately, but may not be in AMA format (6-10 points possible).</td>
<td>Missing 2 additional sources included in the discussion and all information in the summary is cited within the text appropriately, but not in AMA format (1-5 points possible).</td>
<td>No additional source are included and information is not cited when necessary.</td>
</tr>
<tr>
<td>Length</td>
<td>Adheres to 2000 word minimum criteria and is not over 2500 words.</td>
<td>Does not meet 2000 word criteria by 25 words or less and/or is over the 2500 word maximum by 25 words or less.</td>
<td>Does not meet 2000 word criteria by 26-50 words and/or is over the 2500 word maximum by 26-50 words.</td>
<td>Does not meet 2000 word criteria by 51 or more words and/or is over the 2500 word limit by 51 or more words.</td>
</tr>
<tr>
<td>Format</td>
<td>12 point or less font, double spacing, and AMA style are correct.</td>
<td>Font and spacing, font and AMA style, or spacing and AMA style are correct. 1 example of weak paraphrasing or using direct quotations of original sources with or without citation (6-10 points possible).</td>
<td>Font, spacing, or AMA style is correct. 2 examples of weak paraphrasing or using direct quotations of original sources with or without citation (1-5 points possible).</td>
<td>Font, spacing, and AMA style are incorrect. 3 or more examples of weak paraphrasing or using direct quotations of original sources with or without citation.</td>
</tr>
<tr>
<td>Grammar</td>
<td>There are 2 or less grammatical errors (11-15 points possible).</td>
<td>There are 3-4 grammatical errors (6-10 points possible).</td>
<td>There are 4-5 grammatical errors (1-5 points possible).</td>
<td>There are 6 or more grammatical errors.</td>
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</tbody>
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Total Points (90 points possible)
Important Dates:

Fall Semester Dates:
Classes Start = Wednesday, August 14, 2019
Drop/Add Period = August 14-20, 2019 (ends 11:59 pm on Aug. 20)
Withdraw with W Period = August 21, 2019 – October 9, 2019
Labor Day Holiday = Monday, September 2, 2019
Fall Break = Thursday, October 3, 2019-Friday, October 4, 2019
Thanksgiving Holiday Break = Monday, November 25, 2019-Friday, November 29, 2019
Last Day of Class = Friday, December 6, 2019
Final Exam Week = December 7-13, 2019