UNIV 2113 – Developing Literacies in the STEM Fields  
Spring 2019 – CRN 48688

Course Instructor Information  
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UNIV Courses are offered by the Division of Academic Enhancement, a unit of the Office of Instruction at the University of Georgia.

The Division empowers all students to achieve success with innovative courses, programs, services, and student-centered initiatives. The DAE supports students as they transition into higher education and sustains their progress through the University's unique academic environment. We are committed to students, committed to success.

Course Description

This course is an introduction to the fields of Science, Technology, Engineering, and Mathematics (STEM) and the skills students need to be successful within these domains. The course presents fundamental principles, applications, and processes of becoming literate within STEM fields as students explore some of the world's problems from the perspectives of STEM inquiry, learn to use various problem-solving strategies, and practice effective communication (both oral and written).

Our goal is to make you a more informed and literate student in STEM – Science, Technology, Engineering, and Mathematics. This will involve engagement with the course curriculum, with other students in the course, and with your instructor in a seminar style course design. See Assignments and Projects and Course Outline for further explanation.
Learning Objectives

Upon successful completion this course, students will be able to:

- Identify the fundamental concepts and skills necessary to be successful as STEM majors.
- Interpret and critically analyze different forms of data and results (i.e. STEM texts and introductory research articles) in accordance with STEM conventions.
- Summarize and synthesize research relevant to the various STEM disciplines.
- Produce well-researched reports and writing appropriate to the various STEM fields.

Assignments and Projects

All course information including a copy of the syllabus, assignment due dates, and policy information can be found in eLC. Announcements about the class will be posted here as well as changes to the syllabus. You are responsible for checking eLC for announcements on a regular basis.

Your grade will be based on **1000 total possible points**, calculated from the following:

- Participation 150 points
- Course Assignments 400 points
- Student Research Project 250 points
  - Project Planning Worksheet (50 points)
  - Research Report – Draft (points for Peer Review)
  - Research Report – Final (200 points)
- Final Project Presentation 200 points

Grading/Evaluation

You should keep a record of all your assignment grades and save your returned graded assignments until the end of the term. Any complaint about a grade must be brought to your instructor’s attention, in written form with a thorough explanation as to why you disagree with the grade, within one week of the grade being posted.

**Grading Scale**

- A 93.0-100%
- A- 90.0-92.9%
- B+ 87.0-89.9%
- B 83.0-86.9%
- B- 80.0-82.9%
- C+ 77.0-79.9%
- C 73.0-76.9%
- C- 70.0-72.9%
- D 60.0-69.9%
- F 59.9% and below

Course Materials

All required course content will be provided free of charge on eLC. You are welcome to print off materials for completing the assignments.

Course Policies

Class is scheduled to run for approximately 1 hour and 15 minutes. You will need this time to adequately complete the in-class exercises, collect data, analyze the results, and clarify any points with your instructor. You are expected to participate in all course exercises, making certain you fully understand the material covered. Remember, your instructor is there to help you with the exercises and to evaluate your performance and participation.
It is imperative that you prepare thoroughly for each and every class meeting. Preparation, or lack thereof, not only affects your grade in the course, but also impacts your team members. You cannot be an effective team member if you only have a vague idea of what’s going on. Preparation means reading and understanding the course material, thinking about challenges, developing ideas to share with your fellow students, and communicating as necessary before class with your team members.

Make-up assignments

These assignments are for excused absences and are due within a time limit agreed to between you and the instructor and may include any or all of the following: evidence that you have consulted with your team members regarding missed work and data, submitting assignments associated with the missed class period, making up a class assessment, and/or by completing an alternate assignment designated by the instructor. Students who fail to complete the make-up work within the allocated time will not receive credit for the missed work. You are responsible for all material and data presented and gathered in the class period.

Late policy

10% is lost per day beyond the assignment's due date. Any assignment late beyond 1 week will not be accepted.

Excused Absence

A “valid” excuse is one that is written, verifiable, and covers the date and time of your scheduled class. Oversleeping and job conflicts do not constitute acceptable excuses. Missing a class with a valid excuse allows you to make-up the class provided that you contact the instructor within 24 hours of your absence. If you know in advance that you will miss a class with a valid excuse, contact your instructor before the class.

Unexcused Absence

Unexcused absences will be reflected in your attendance. Please look at the Attendance Policy (Section K) for the course to understand how missing class will impact your grade.

Communication

To comply with the Family Educational Rights and Privacy Act (FERPA), all communication that refers to individual students must be through a secure medium (UGAMail or eLC) or in person. Instructors are not allowed to respond to messages that refer to individual students or student progress in the course through non-UGA accounts, phone calls, or other types of electronic media.

Group work

Many of your experiences in UNIV 2113 will be based upon work completed in small groups. You are encouraged to interact with your instructor and your classmates when completing your in-class work and your homework. However, you are expected to complete all written assignments by yourself (i.e., showing independent thought) unless otherwise directed by your instructor. If you are experiencing problems with one or more group members, please
inform your instructor immediately so that they may take this into consideration when they evaluate each student at the end of the semester.

In STEM, all co-authors on group projects are held accountable for the accuracy and originality of the published work. Similarly, on course assignments, when a student's name is on a group project, this implies that they take responsibility for the accuracy and originality of the entire assignment (and also for any academic dishonesty that may have been involved). Students often have difficulties determining how to demonstrate independent effort when they work in groups to complete assignments (e.g., “we all did the same thing so shouldn't the work that we turn in be the same?”). Please carefully review the information “Expectations about Group Work & Plagiarism”, located in eLC, under the link “Plagiarism.” You are responsible for being familiar with this document. If you ever have a question about whether or not you have crossed the fine line between group work and independent work, ask your instructor for assistance before you hand in an assignment.

Inquiry-Based Learning

This class will be designed so that you are prompted to ask questions, investigate the literature, and probe deeper into particular discussion topics for clarity on a subject. In some instances, you can expect to do this in teams and other times you will do this independently. This learning strategy provides a more realistic experience of conducting research than you would be able to get with a traditional class format.

Participation Policy

Attendance and Participation is required for this class. Missing even one class means that you have missed a significant portion of the course. DO NOT schedule any other appointments or activities during your scheduled class sessions.

Due to the limited number of meeting times for this semester, students who miss THREE or more class periods at any point during the semester, even with valid excuses, is subject to earn a non-passing grade in UNIV2113. If a student has missed two or more class meetings due to extenuating circumstances and wishes to avoid a failing grade, they should request an Incomplete or Hardship Withdrawal. Please contact your instructor if this is the circumstance.

Grade appeal options can be found at https://ovpi.uga.edu/student-opportunities-resources/student-resources/student-academic-appeals/appeal-process/grade

Class Participation accounts for 10% of your overall grade - be sure to be on time and prepared to learn. Tardiness and leaving class early without permission are not tolerated. If you arrive to class more than 15 minutes late you will be marked as absent with a valid excuse but will be allowed to hand in work for that class as well as stay and complete the class exercises. If you leave class early without permission, you will be marked as absent without a valid excuse - even if you have completed all work for that day - and will automatically receive a 5-point deduction from class assignments for that day as well as reduced participation points. If you are not fully participating and/or are distracting from the learning environment, these are grounds for reduced participation points.

In the event that the university cancels classes, such as for severe weather, students are expected to continue with readings as originally scheduled. Any assignments scheduled during those missed classes, such as a project or paper, are due at the next class
meeting unless other instructions are posted at the course website or communicated via email.

Disability Statement
If you anticipate issues related to the format or requirements of this course, please meet with me. I would like us to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with the Disability Resource Center (Voice: 706-542-8719 or TTY: 706-542-8778) and notify me of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations.

Academic Honesty Policy
As a University of Georgia student, you have agreed to abide by the University’s academic honesty policy, “A Culture of Honesty,” and the Student Honor Code. All academic work must meet the standards described in “A Culture of Honesty” found at: https://ovpi.uga.edu/academic-honesty/academic-honesty-policy. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

Other Division Resources
From peer tutoring through the Academic Resource Center to Academic Coaching to Student Success Workshops and more, the Division is committed to the success of all students at the University of Georgia. For more on these and other resources, visit https://dae.uga.edu.
**Course Outline**

The schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better student learning. All readings are required unless otherwise noted. Students should read/know required material by the date listed, at which time we will discuss or use the scheduled readings in class.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic of Discussion</th>
<th>Course Assignments (due by start of class)</th>
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<tbody>
<tr>
<td>1: January 15, 2019</td>
<td>Introduction to STEM Literacies – Scientific Method and Study Strategies</td>
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<tr>
<td>2: January 22, 2019</td>
<td>PARR Test – Purpose, Authority, Reliability, Relevance</td>
<td>Questionnaire on eLC Scientific Method Assignment</td>
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<td>3: January 29, 2019</td>
<td>*Library Visit – Navigating the Science Library Resources</td>
<td>PARR Test Assignment</td>
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<td>4: February 5, 2019</td>
<td>Writing in STEM – Paraphrasing &amp; Plagiarism</td>
<td>Science Library Reflective Essay</td>
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<td>5: February 12, 2019</td>
<td>Writing in STEM – Organization in writing and citing</td>
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<tr>
<td>6: February 19, 2019</td>
<td>Study Skills &amp; Strategies</td>
<td>Writing in STEM Assignment</td>
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<td>7: February 26, 2019</td>
<td>Data Generators – Getting comfortable with data</td>
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<tr>
<td>8: March 5, 2019</td>
<td>Correlation and Causation – Evaluating data and their relationships</td>
<td>Data Generators Assignment</td>
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<tr>
<td>9: March 12, 2019</td>
<td>*No class – Spring Break</td>
<td>Correlation and Causation Assignment</td>
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<tr>
<td>10: March 19, 2019</td>
<td>Dissecting the Literature – Learning how to read critically</td>
<td>Dissecting the Literature Assignment</td>
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<td>11: March 26, 2019</td>
<td>Peer Review – What is it and why is it important?</td>
<td>Dissecting the Literature Assignment Draft</td>
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<td>12: April 2, 2019</td>
<td>Data Visualization – Reporting Data</td>
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<td>13: April 9, 2019</td>
<td>Data Visualization – Editing Graphs</td>
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<tr>
<td>14: April 16, 2019</td>
<td>Student Presentations</td>
<td>Data Visualization Assignment Final Project Presentation</td>
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<tr>
<td>15: April 23, 2019</td>
<td>Student Presentations</td>
<td>Research Report - Final Reviewer Response Author Contribution Statement</td>
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<tr>
<td>16: April 30, 2019</td>
<td>*No class – Good luck on Finals!</td>
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*Denotes a field trip

Note: The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.