

Course Change Request

New Course Proposal

Date Submitted: 02/08/24 12:32 pm

Viewing: **COS 302 : College of Science Transfer Transition**

Last edit: 02/08/24 12:32 pm

Changes proposed by: gcraft

Are you completing this form on someone else's behalf?

No

Effective Term: Fall 2024

Subject Code: COS - College of Science

Course Number: 302

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: College of Science Transfer Transition

Banner Title: College of Science Transfer Tr

Will section titles vary by semester? No

Credits: 1

Schedule Type: Seminar

Hours of Lecture or Seminar per week: 1

Repeatable: May be only taken once for credit, limited to 3 attempts (N3)

Max Allowable Credits: 3

Default Grade Mode: Undergraduate Regular

Recommended Prerequisite(s):

In Workflow

1. SC Curriculum Committee
2. SC Curriculum Committee
3. SC Assistant Dean
4. Assoc Provost-Undergraduate
5. Registrar-Courses
6. Banner

**Recommended
Corequisite(s):****Required
Prerequisite(s) /
Corequisite(s)
(Updates only):****Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):**

And/Or	(Course/Test Code	Min Grade/Score	Academic Level)	Concurrency?

**Registration
Restrictions
(Updates only):****Registrar's Office Use Only - Registration Restrictions:****Field(s) of Study:****Class(es):****Level(s):****Degree(s):****School(s):****Catalog
Description:**

This seminar provides guidance and support for College of Science students who transferred from other post-secondary institutions, connecting students to supportive Mason resources. COS 302 explores the implicit, essential interdisciplinary professional skills for success in STEM while orienting students to essential resources and experiences to support success in today's STEM disciplines and tomorrow's career pathways. Students will gain understanding of STEM curricular and student engagement opportunities, explore hands-on learning opportunities (including undergraduate research, internships, and microcredentials), and more. COS 302 provides a transfer student-focused introduction to 21st century STEM skills and occupations, including global problem-solving, project management, and the fundamental principles of research, writing and communication across scientific research and practice.

Justification:

what: creating a new course.

why: to create a course for students in the RISE program.

Does this course cover material which crosses into another department?

No

Learning Outcomes:

Upon completion of the course, students will enhance their knowledge of 21st Century STEM professions and competencies by:

1. Investigating academic and career pathways in STEM through a transfer student lens, including exploration and in-depth research of academic and STEM-sector career readiness resources and experiences that support success in 21st Century science professions.
2. Understanding historical and modern approaches to scientific knowledge creation and dissemination, including an overview of ethics and bias in STEM.
3. Exploring emerging models of scientific inquiry and global and intercultural problem solving, including AI integration, and ethical engagement in research and practice within their selected scientific career pathway.
4. Communicating scientific content effectively, within and across academic and professional environments.
5. Analyzing scientific products (written, verbal, and digital) through individual and group review and the application of analysis tools, practices, and results.
6. Ideating and presenting solutions to complex challenges, including system and stakeholder assessment, concept mapping, and presentation skills.
7. Engaging in the project design and project management processes, to include applying scope documentation and project management methodologies, SMART goal-setting, SWOT analysis, project review and utilizing data to update project management plans.

Will this course be scheduled as a cross-level cross listed section?

Attach Syllabus

[Syllabus Fall 2024 COS 302_review.pdf](#)

Additional Attachments

Staffing:

Kerin Hilker-Balkissoon

Relationship to Existing Programs:

none

Relationship to Existing Courses:

replacing UNIV 302

Additional Comments:

replacing UNIV 302

Reviewer Comments

Key: 18613



Course Syllabus: Fall 2024

Course Information	<p>College of Science (COS) 302: College of Science Transfer Transition (1 credit) Location: Asynchronous Online</p>
Instructor	<p>Kerin Hilker-Balkissoon Office Hours: Mondays from 4-5 pm at https://gmu.zoom.us/j/3191485570 or by appointment</p>
Course Description	<p>This seminar provides guidance and support for College of Science students who transferred from other post-secondary institutions, connecting students to supportive Mason resources. COS 302 explores the implicit, essential interdisciplinary professional skills for success in STEM while orienting students to essential resources and experiences to support success in today's STEM disciplines and tomorrow's career pathways. Students will gain understanding of STEM curricular and student engagement opportunities, explore hands-on learning opportunities (including undergraduate research, internships, and microcredentials), and more. COS 302 provides a transfer student-focused introduction to 21st century STEM skills and occupations, including global problem-solving, project management, and the fundamental principles of research, writing and communication across scientific research and practice.</p>
Course Objectives	<p>Upon completion of the course, students will enhance their knowledge of 21st Century STEM professions and competencies by:</p> <ol style="list-style-type: none"> 1. Investigating academic and career pathways in STEM through a transfer student lens, including exploration and in-depth research of academic and STEM-sector career readiness resources and experiences that support success in 21st Century science professions. 2. Understanding historical and modern approaches to scientific knowledge creation and dissemination, including an overview of ethics and bias in STEM. 3. Exploring emerging models of scientific inquiry and global and intercultural problem solving, including AI integration, and ethical engagement in research and practice within their selected scientific career pathway. 4. Communicating scientific content effectively, within and across academic and professional environments. 5. Analyzing scientific products (written, verbal, and digital) through individual and group review and the application of analysis tools, practices, and results. 6. Ideating and presenting solutions to complex challenges, including system and stakeholder assessment, concept mapping, and presentation skills. 7. Engaging in the project design and project management processes, to include applying scope documentation and project management methodologies, SMART goal-setting, SWOT analysis, project review and utilizing data to update project management plans.



Course Methodology	<p>The class is offered in a synchronous, virtual format. Sessions will be seminar-focused, and mini-lectures, group activities, and other virtual learning tools will be utilized. This class simulates the collaboration and communication expectations of a STEM workplace. The class will be interactive and will include group work during virtual class sessions. Students will need to remain engaged and fully participate in individual and group activities/projects.</p>
Required materials	<p>There is no required textbook for this class. All required course readings and materials are free and openly available via Canvas or through Mason’s Library Services.</p>
Computer Requirements	<p>Please note the technology requirements for the College of Science in your Canvas course menu—it contains details of minimum technology requirements.</p>
Course Website	<p>Canvas will be used for this course. You can access the site at http://mymasonportal.gmu.edu. Login and click on the “Courses” tab. You will see our COS 302 course. NOTE: Username and passwords are the same as your Mason email account. You must have consistent access to an internet connection in order to complete the assignments in this course through Canvas. (http://mymason.gmu.edu).</p>
Course Ideology & Engagement Expectations	<p>Learning can only happen when you are playing an active role. It is important to place more emphasis on developing your insights and skills, rather than transmitting information. Knowledge is more important than facts and definitions. It is a way of looking at the world, an ability to interpret and organize future information. An active learning approach will more likely result in long term retention and better understanding because you make the content of what you are learning concrete and real in your mind. Additional information related to participation is included below, under the Course Evaluation and Grading section.</p>
Rules and Expectations	<p>In correspondence/communication/group activities students will be expected to:</p> <ol style="list-style-type: none"> a. Be professional and respectful b. Make reasonable requests of the instructor. We will be happy to clarify course material and answer legitimate questions; however, please check information sources (e.g., syllabus, Canvas) where information is posted. <p>In regard to honesty in work students will be expected to:</p> <ol style="list-style-type: none"> a. Review the University integrity and honesty policies in the student handbook for guidelines regarding plagiarism and cheating (summarized below). I will gladly clarify my stance on any questionable or “grey area” issues you may have. It is explicitly not permitted to share your attendance verification photos or in-class activity solutions with non-attending students. b. Refrain from dishonest work as it will receive a minimum penalty of zero on the assignment and a maximum penalty of a zero for the course with a report to the Honor committee. The GMU Honor Code requires that faculty submit any suspected Honor Code violations to the Honor Committee. Therefore, suspected offenses will be submitted for adjudication.



Mason Honor Code	<p>The complete Honor Code is as follows:</p> <p>To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work. (From the Catalog – catalog.gmu.edu)</p>
Use of AI Policy	<p>AI tools (Chat GPT, etc.) are powerful technologies that, when used appropriately, can enhance student learning and professional work. However, studies show that the newest AI tools currently demonstrate only 53% content accuracy, while university professors (who are experts in their fields), are able to identify AI-generated work with 94% accuracy. Mason utilizes technology to scan assignments for cheating, including AI generation. In this course AI tools may be used to support your learning and to refine your work, similar to tutoring or writing center support. Use of AI tools on academic assignments outside of those areas specifically approved constitute cheating. Any form of cheating on an activity, project, or exam will result in zero points earned.</p>
Plagiarism and the Internet	<p>Copyright rules apply to users of the Internet who cite from Internet sources. Information and graphics accessed electronically must also be cited, giving credit to the sources. This material includes but is not limited to e-mail, newsgroup material, information from web sources (including AI-generated content), personal communications, and graphics. Even if you give credit, you must get permission from the original, copyrighted source to put any graphic that you did not create unless it is specifically designated as free or open source. If the material does not say "free," assume it is not. Utilizing someone's material in your work is stealing intellectual property. Making links to a site is, at this time, okay, but getting permission is strongly advised.</p>
Student Privacy Policy	<p>George Mason University strives to fully comply with FERPA by protecting the privacy of student records and judiciously evaluating requests for release of information from those records. It is not permitted for faculty to share class progress or grade information with parents/guardians under any circumstances. See the student privacy policy: https://registrar.gmu.edu/students/privacy/</p>
Academic Integrity and Inclusivity	<p>This course embodies the value that we all have differing perspectives and ideas, and we each deserve the opportunity to share our thoughts. Therefore, we will conduct our discussions with respect for those differences. That means, we each have the freedom to express our ideas, but we should also do so keeping in mind that our colleagues deserve to hear differing thoughts in a respectful manner, i.e. we may disagree without being disagreeable. http://oai.gmu.edu/</p>
Students with Disabilities, Access Needs & Neurodivergence	<p>Students with disabilities should contact the Office of Disability Services (703) 993-2474) to explore accommodations and resources available to them. Students do not receive accommodations until they provide the course instructor with an ODS memorandum. Note: The transfer transition can be difficult for many students. Accommodations may be appropriate for students who experience new or worsening challenges that directly affect their academic performance. <u>You do not need to have received special education services to qualify for accommodations in college</u>, but appropriate medical documentation of a physical, mental health, attention, or other health issue is required.</p>



E-Mail Policy Mason uses electronic mail to provide official information to students. Examples include notices from the library, notices about academic standing, financial aid information, class materials, assignments, questions, and instructor feedback. Web: masonlive.gmu.edu. Students are responsible for the content of university communication sent to their Mason e-mail account and are required to activate that account and check it regularly. Students are also expected to maintain an active and accurate mailing address in order to receive communications sent through the United States Postal Service.
(From the Catalog – catalog.gmu.edu)

Course Grading & Evaluation Grading of all assignments is based on students’ incorporation of the material covered in class materials. Assignments and discussions will generally be submitted through Canvas, unless otherwise noted by the course instructors. **There is one, individual midterm project and one group final project that together comprise 50% of the total grade for the course.**

Virtual Attendance & Engagement	25%
Discussion Posts	25%
Mandatory Event Attendance	15%
Summative Assignments (see below)	35%
Total	100%

Extra credit/absence make-up credit available for attending optional events.

Recognizing that life happens, this class does not deduct late penalties for work submitted **two weeks** after the deadline (this flexibility does not extend beyond the final day to submit assignments for the semester). However, keeping up with classwork on a weekly basis is essential to success in college. College students in upper-level classes are generally expected to work independently for additional 2-3 hours outside of class for every credit hour/hour in the standard (non-laboratory) classroom. **For this course, you should budget a total of 2-3 hours per week.**

Unless otherwise stated, all assignments are due by the end of the week in which they are assigned. For the purposes of this course, a week is defined as **beginning at 12:01 am on Monday EST, and ending at 11:59 pm on the following Monday EST.**

To help you manage your schedule and time to complete the assignments in this course, follow the recommended timeline. If you have a question or concern or encounter any issue with an assignment, please contact me immediately so we can discuss and work out a resolution.

Grades will be assigned as follows:

A	93.00-100%
A-	89.50-92.99%
B+	87.00-89.49%
B	83.00-86.99%



B-	80.00-82.99%
C+	77.00-79.99%
C	73.00-76.99%
C-	70.00-72.99%
D	60.00-69.99%
F	0-59.99%

<p>Course Attendance & Virtual Participation (Zoom Sessions) 25%</p>	<p>ATTENDANCE: Attendance is a critical component of COS 302. Students are expected to attend virtual class sessions and group meetings with your COS 302 group. Class attendance is weighted - each week's attendance is worth more than the prior week's toward your final grade. Students must respond to several virtual prompts during class for virtual attendance credit.</p> <p>PROFESSIONAL COMMUNICATION: As college students preparing for professional careers, it is expected that you utilize appropriate communication, both in person and digitally (email, Zoom chats, etc.). Maintain a safe and respectful environment both in person and virtually, even if you disagree.</p>
<p>Class Discussions & Journals: 25%</p>	<p>DISCUSSIONS: Your challenge is to immerse yourself in the topics and perspectives presented in the course. You will want to be able to comment on the discussion topics with authority. Please provide responses (in class and via Canvas) with a clear, well-formulated thesis. In college sentence structure, grammar, punctuation, and spelling always count. Any responses to others should consider points of agreement, disagreement, assumptions, and value judgments.</p> <p>JOURNALS: You will periodically be asked to respond to short reflective writing prompts. These will be viewed only by the instructor. Please use complete sentences, and professional grammar, punctuation, and spelling. Be sure to fully respond to all areas of the prompt.</p>
<p>Mandatory Event Attendance: 15%</p>	<p>Students are expected to attend the following events as a part of the course experience:</p> <ul style="list-style-type: none"> • ScienceConnect: Tuesday, September XX (Drop in event - check in between 12:30-4:00) • Student Choice Event: Select one STEM or transfer student engagement event from the wide range of offerings at Mason. Day/Time TBD – See Mason360 or science.gmu.edu/events.
<p>Summative Projects: 35%</p>	<ul style="list-style-type: none"> • STEM Career Readiness Infographic – explore a specific STEM career development opportunity of your choice through visual media, sharing key information about your career (tasks, statistics, equity metrics). • STEM Challenge Concept Map – exploring the systems and stakeholders affected by your group's STEM challenge topic. • STEM Challenge – video essay project exploring a large-scale, complex interdisciplinary issue requiring systemic change to address.



Attendance Policies:

1. As a seminar-focused course, attendance is a significant portion of the course grade. **As the semester progresses, each week's attendance is weighted more heavily than the prior week's attendance score.**
2. Attendance will be taken for all sessions. While cameras do not need to be on, you will receive and must promptly answer all instructor prompts to get full attendance credit.

Students may miss one class with no grade penalty. If you have extenuating circumstances (documentation generally required), up to two additional classes may be excused upon completion of an alternative project.

Need Help with this course, or anything else? If you encounter any difficulties in this course, or with your ability to access Mason classes due to academic, personal, or work issues, please reach out. I have been in your shoes and genuinely want to help. Use the Ask Your Instructor discussion forum, email, or come to office hours! Please don't wait until the end of the semester to ask for help - by then, it may be too late. If you have carefully reviewed this syllabus as requested, please go to Canvas, Module 1 and submit your favorite science meme to the IYKYK extra credit "assignment," BEFORE the start of your second class session. Do not be afraid to ask for help!

In addition to contacting your instructor, the Counseling Center, Learning Services, COS Learning Assistants, and your success coach are all committed to supporting you. Many workshops and counseling services are offered throughout the semester. Make use of the many rich academic and personal opportunities available at Mason!



COS 302 Course Schedule: Fall 2024

Date	Topic	What is due?
Week 1:	Course Introductions, Addressing Transfer Shock and Impostor Syndrome, Overview of Mason/College of Science Resources	Complete Discussion Board: Impostor Syndrome & STEM Identity Complete Assignment: Resource Exploration Activity
Week 2:	Professional Development for Science Careers: Digital Badges, Undergrad Research & Internships	Complete Discussion Board: Connecting Needs and Resources Complete Reflective Writing Prompt: What experiential learning option is right for me? (FYI, your choice guides your summative projects - Infographic and Recorded Presentation)
Week 3:	Scholarly Research 2.0: What They Didn't Teach You in High School - from AI to Zotero	Complete Discussion Board: Evaluating "Good" vs. "Bad" Research in the Age of AI Complete Assignment: Scholarly Article Summary & Review
Week 4:	Interdisciplinary STEM Skills: Project Management/SWOT Analysis & Concept Mapping	Complete Discussion Board: When Projects Go Wrong – Evaluation & Lessons Learned Complete Assignment: Systems & Stakeholders Concept Map
Week 5:	Interdisciplinary STEM Skills: Degrees of Magnitude (AKA Fermi Estimation) & Intro to Data Visualization	Complete Discussion Board: Degrees of Magnitude/Fermi Estimation Challenge Complete Assignment: Data Visualization Project
Week 6:	Introduction to Research Ethics & Exploring Impacts of Bias in STEM	Complete Reflective Writing Prompt: Algorithmic Bias Complete Assignment: Identifying Research Bias Case Scenarios
Week 7:	Preparing for STEM-sector Graduate/Professional Study or Workforce Entry	No Discussion Board Complete Summative Assignment 1: Final Infographic
Finals Week	Course Wrap-Up	Submit Required Event Attendance Confirmations Complete Summative Assignment 2: Recorded presentation of Infographic