

BIOL 420 / LA&S 492: STEM Professional Development

Fall 2018; 2 Credits

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Office hours: by appointment (email to set up a time to meet).

General Course Information

Class Meetings

Monday, 3:30-5:20 pm, 2023 Haworth Hall

Course Description

There are no prerequisites for this course. All coursework and assignments are specially designed to provide students with opportunities to explore a range of STEM and related careers, and gain practical professional development skills and career-readiness skills that are desired by employers. In this course, students will discuss careers and professional development in terms of diversity of backgrounds, experiences, and learning styles, both as an asset for increasing innovation and to provide confidence-boosting strategies as they embark upon their careers. Final products of this course include a refined resume, cover letter, online presence, interview skills, confidence-building strategies, a project product (“deliverable”) that is directly related to career interest, and a project poster.

Course Objectives

By the end of this course, students should be able to;

1. Describe situations that contribute to homogeneity of the workforce or leadership in STEM fields, and strategies individuals and companies can use to boost diversity as an asset for innovation.
2. Demonstrate resilience and self-confidence in the face of barriers in their education and career paths.
3. Identify careers of interest and develop professionally to prepare for these careers.

Class Format

This class will include many workshops and classroom activities. We expect you to use your time outside of class to prepare for these by completing the assigned homework or assessments. This allows us to use in-class time for learning activities that produce deeper learning than lecture alone. We will use strategies like collaborative problem solving, analysis of case studies, critical reading, writing, and other professional development activities. In the second week of class, students will be assigned to teams based on their shared career interests. Teams will work together in and out of class on a project to produce a product (“deliverable”) for their client; the final will be a poster representation of the work put into this semester-long product development.

Student teams will work with a **graduate student/post-doc mentor** that will advise them on their project and on communication with their **client**. Your team should set up regular meetings with your graduate student/post-doc mentors to gain help with resources for your project and guidance on networking. Clients are professionals or researchers working in STEM-related fields, who have come

forward with projects they need completed. They will also play a role in the development of this project as well as help you grow your professional network. Much of the interaction with your client will be to define, clarify, and get feedback on the project design and implementation. Projects are varied and include (but may not be limited to) educational resources, scientific illustration, research or writing on STEM-related policy, data analysis and research.

Another major component of this course will be assessment. Given the structure of the course, it is essential that you spend the time to complete assessments on time and that you take all of them seriously. These assessments will help us to discover your strengths, values, skills, and potential career paths that align. They will also help us assess your understanding of the concepts addressed in the course, which we will use to adjust our instruction.

The Instruction Team

This course is designed and supported by Drs. Joy Ward, Hannah Kinmonth-Schultz and, a GTA, Karen Olson. A curriculum design committee (Emily Arsenault – ERArsenault@KU.edu, Kaila Colyott – KColyott@KU.edu, Kelci Shilly – KMSchilly@ku.edu, James Fischer james047@ku.edu, and Cindy Ly – CLy724@ku.edu) has also aided in the design and support of this course. This course grows out of and is further supported by Jayhawks Breaking Barriers (jbb.ku.edu), which aids in recruiting and training mentors, event planning, and programming assessment.

Course Preparation

Blackboard

Announcements, handouts, assignments, readings, and grades will all be posted on a Blackboard site for this course. Please check Blackboard regularly for important announcements, materials, and so on. Please see Kaila Colyott (KColyott@KU.edu) if you are not familiar with Blackboard.

Email

Some assessments, surveys, and course updates will be sent to you via email. Please check and respond to your email in a timely manner. Communicating via email in a professional manner is an objective of this course and will be important for being successful in the course.

Professional Dress

For some events over the semester, you will need to dress professionally in business casual clothing. If you need help with what exactly this means, talk to Hannah and Karen. Plato's Closet and Goodwill are low cost options if you do not already own anything business casual.

Course Requirements

Preparation for Class

Assessments and other homework will be due throughout the semester. Our aim is that you will have time to work on many of these things during the class time, but some will need to be completed or done entirely outside of class. Most of these assignments will allow us to make sure you are progressing in a timely manner towards the goals we have set for the course. All of these assignments are noted in the tentative course outline.

Exit Slips

Exit slips are used to allow us to assess how well we have helped you reach the goals we have set for a course period. These will be written assessments after a classroom activity that will be handed in before you leave class. These will be graded for completion and effort. We ask you to take these small assessments seriously as they will ultimately allow us to better guide you.

Assessments

There will be many assessments associated with this course. Some assessments are merely for you to assess your interests (ex. IDP, Individual Development Plan) and tendencies as an individual (ex. DiSC personality assessment) with the goal of understanding yourself better. These assessments will guide you in setting goals for your professional development as an individual and for the role you will play in your team project. Other assessments will allow us to assess whether or not we are guiding you in meeting the weekly and overall goals we have set for the course. All assessments will be graded for participation, completion, and effort and not on content. Many of these will be graded by you turning in your output from the assessment (i.e. list of careers from IDP)

Professional Documents

At the end of the semester, we aim for you to leave with a polished resume or CV, cover letter, and online presence. We will work with you to develop these documents, and these documents will be graded.

Project

Each team will produce a deliverable for their client over the semester. This will culminate with a poster presentation about the work your team has completed. See Project Description, Expectations and Timeline page on Blackboard for more details and associated deadlines.

Poster

Each team will create a poster about their project. This is your final and will be presented during a networking event on the day/time of your final exam (December 10th, 4:30PM-7:00). Thanks for reading in great detail. You deserve some points! Send an email to Karen Olson with the subject line "My semester" and include 1-2 sentence(s) in the body of email describing what has you most excited about this semester.

Grades

Breakdown of how grade will be calculated

Course work	Percentage of overall grade
Attendance and Participation (exit slips are included)	10%
Assessments/Surveys	15%

Professional Documents	15%
Project	30%
Poster	30%

STEM Professional Development Tentative Course Outline

Date	Topic	HW due on date; Assessments to complete
August 20	Course and Project Overview	Assessment: Independent Development Plan (IDP); Due: Bring ranked list of careers from IDP
August 27	Identify potential careers and set goals for self and project	Assessment: Initial survey and CatMe survey; Due: Schedule meeting with group outside of class
Aug 27 Goals: Students will 1. identify careers/job titles/companies of interest 2. analyze job descriptions related to careers/job titles/companies of interest 3. set attainable goals to prepare to build skills for those positions		
September 3	No Class	Outside of class: meet with team to formulate plan for project and begin research
Sept. 3 Goals: Bring your goals that were set in class on August 27 and work to align the group project to everyone's individual goals		
September 10	Effective written communication	
Sept. 10 Goals: Students will 1. discuss how to effectively communication in a professional environment over multiple platforms (twitter, email, LinkedIn, verbally) 2. craft professional emails in a timely fashion		
September 17	Networking: develop project contacts/advice	Email (OK'd by mentor; cc mentor and TA) sent
Sept. 17 Goals: Students will 1. craft an effective elevator pitch 2. craft a set of standard questions used for networking 3. obtain three leads related to career of interest		
September 24	Internal and external causes of diversity gap	Scheduled informational meeting with professional
Sept. 24 Goals: Students will 1. identify the internal and external causes of the diversity gap 2. analyze and draw conclusions from data on the causes of the diversity gap 3. evaluate situations to identify the causes of the diversity gap 4. develop strategies to deal with the causes of the diversity gap		
October 1	DISC personality assessment	DISC assessment and meeting with professional completed
Oct. 1 Goals: Students will analyze their personal styles, determining areas in which they are both strong and weak 2. devise strategies to improve		
October 8	Conflict resolution	Due: Final project plan emailed to professional contact.
Oct 8 Goals: Students will recognize the difference between data and assumptions and conclusions 2. engage in dialogue that fosters discussion of the data 3. explain how bias may		

contribute to/affect conflict in the workplace 4. analyze workplace conflicts and suggest strategies to effectively lessen and mitigate them

October 15	No Class	Mid-semester check-in form; Mid-semester anonymous feedback
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October 22	Resiliency panel	Ongoing: opportunity for students to gather individuals that may help them towards their goals
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Oct. 22 Goals: Students will 1. self-assess times they felt like giving up in the face of failure but chose to persist 2. display willingness to ask for help to move past obstacles

October 29	Project check-in (~10min PowerPoint)	PowerPoint about project progress
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Oct. 29 Goals: 1. identify the problems/obstacles in the way of achieving a goal 2. clarify the causes of the obstacles 3. assess which are in their control 4. design solutions for those problems

November 5	Leadership
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Nov. 5 Goals: Students will 1. analyze leadership strategies organizations are using to build diverse environments that foster collaboration and innovation. 2. create interview rubrics or questions that would mitigate bias in the hiring process. 3. articulate strategies that they can use to capitalize on the diversity of their experiences to get positions they want despite the leadership strategies of a company, and to position themselves for success once they attain those positions (strategies to build confidence, find support, etc.).

November 12	CV and cover letter workshop	Due: Final product to instructors and professionals for feedback
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Nov. 12 Goals: Students will 1. spin negative experiences to craft an effective cover letter & CV/resume 2. flesh out examples and uses number, %, etc. to provide evidence for statements made in cover letter/CV/resume 3. craft tailored CV/resume geared toward career of interest 4. articulate that failure is common, failures are learning experiences, and persistence is needed to attain goals

November 19	Establishing a professional online presence	Due: Resume and cover letter (vetted by mentor prior to due date)
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Nov. 19 Goals: Students will 1. demonstrate effective communication in a professional environment over multiple platforms (twitter, email, LinkedIn, verbally) 2. analyze online presence of professionals in their field for successful strategies 3. create/modify online presence based on successful strategies

November 26	After getting the interview, what next?	Assessment: analysis of personal online presence and screenshots of LinkedIn profile
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Nov. 26 Goals: Students will 1. describe the different things that could be negotiated (title, benefits, parking, vacation, salary) 2. research typical salary for someone in field of interest with different levels of education and experience 3. demonstrate awareness of how background or gender might impact the way an individual is perceived during negotiation 4. Discuss strategies for approaching negotiation

December 3	Project worktime: final preparation for poster presentations	End-of-course survey and new IDP
December 10	Final (4:30 – 7:00, location TBD) poster presentation. Open to the public, professionals invited	December 7: finished poster as PDF to prep for printing. Rubric-based assessment of posters and poster-presentation at final networking event

The schedule and procedures in this course are subject to change in the event of extenuating circumstances.

Course Policies

Attendance

To succeed, you will need to attend class regularly. During class sessions, we will carry out professional development activities and provide time for you to work on your project, so regular attendance will significantly enhance your progression in your professional development and towards the completion of your final project. **We understand that life happens and that you may need to miss a class period. We will work with you to ensure that one absence does not affect your grade, but as with any successful professional or collaborative endeavor, we expect you to communicate with us (the instructors of the course) about this as soon as possible before the class period you will have to miss.**

Deadlines

Deadlines for the written assignments are firm and can be found on the tentative course outline. For the term project, the **grades will be reduced by 10% for each day the assignment is late.** This policy includes those items that are graded for completion and effort. Again, we recognize life can get crazy, we will give a three-day grace period for one assignment if you communicate with the instructors of the course in advance of the assignment due date.

Students with Disabilities or Special Needs

The Academic Achievement and Access Center (AAAC) coordinates academic accommodations and services for all eligible KU students with disabilities. If you have a disability for which you wish to request accommodations and have not contacted the AAAC, please do so as soon as possible. They are located in 22 Strong Hall and can be reached at 785-864-4064 (V/TTY). Information about their services can be found at <http://www.access.ku.edu>. Please contact me privately in regard to your needs in this course.

Diversity and Inclusion Practices

The University of Kansas supports an inclusive learning environment in which diversity and individual differences are understood, respected, and appreciated. We believe that all students benefit from training and experiences that will help them to learn, lead, and serve in an increasingly diverse society. All members of our campus community must accept the responsibility to demonstrate civility and respect for the dignity of others. Expressions or actions that disparage a person's or group's race, ethnicity, nationality, culture, gender, gender identity / expression, religion, sexual orientation, age, veteran status, or disability are contrary to the mission of the University. We expect that KU students, faculty, and staff will promote an atmosphere

of respect for all members of our KU community. **Additionally, diversity of thought is appreciated and encouraged, provided you can agree to disagree. It is the instructor's expectation that ALL students experience this classroom as a safe environment. It is likely you may not agree with everything that is said or discussed in the classroom. Courteous behavior and responses are expected at all times.** When you disagree with someone, be sure that you make a distinction between criticizing an idea and criticizing the person.

Academic Misconduct

Academic misconduct will not be tolerated in this class. An instructor may, with due notice to the student, treat as unsatisfactory any student work which is a product of academic misconduct. Cases of academic misconduct may result in any or all of the following penalties: reduction of grade, admonition, warning, censure, transcript citation, suspension, or expulsion. The following information about Academic Misconduct is discussed in Article II, Section 6 of the rules and regulations of the University Senate.

“Academic misconduct by a student shall include, but not be limited to, disruption of classes; threatening an instructor or fellow student in an academic setting; giving or receiving of unauthorized aid on examinations or in the preparation of notebooks, themes, reports or other assignments; knowingly misrepresenting the source of any academic work; unauthorized changing of grades; unauthorized use of University approvals or forging of signatures; falsification of research results; plagiarizing of another's work; violation of regulations or ethical codes for the treatment of human and animal subjects; or otherwise acting dishonestly in research.”

It is your responsibility as a KU student to make sure you understand academic honesty and misconduct. The policy is described at this link: <https://documents.ku.edu/policies/governance/USRR.htm#art2sect6>. The website of the KU Writing Center provides some excellent information and resources on how to avoid plagiarism. <http://writing.ku.edu/writing-guides> We will be asking you to familiarize yourself with these materials this semester.

Disruptive Behavior

The scope and content of the material included in this course are defined by the instructor in consultation with the responsible academic unit. While the orderly exchange of ideas, including questions and discussions prompted by lectures, discussion sessions and laboratories, is viewed as a normal part of the educational environment, the instructor has the right to limit the scope and duration of these interactions. Students who engage in disruptive behavior, including persistent refusal to observe boundaries defined by the instructor regarding inappropriate talking, discussions, and questions in the classroom or laboratory may be subject to discipline for non-academic misconduct for disruption of teaching or academic misconduct, as defined in the Code of Student Rights and Responsibilities (CSRR), Article 22, Section C, and the University Senate Rules and Regulations, Section 2.4.6. Article 22 of CSRR also defines potential sanctions for these types of infractions.

Concealed Carry

Individuals who choose to carry concealed handguns are solely responsible to do so in a safe and secure manner in strict conformity with [state and federal laws](#) and [KU weapons policy](#). Safety measures outlined in the KU weapons policy specify that a concealed handgun:

- Must be under the constant control of the carrier.
- Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the carrier's custody and control.

- Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position
- Must have the safety on, and have no round in the chamber.

Commercial Note Taking

Pursuant to the University of Kansas' [Policy on Commercial Note-Taking Ventures](#), commercial note-taking is not permitted in BIOL 420. Lecture notes and course materials may be taken for personal use, for the purpose of mastering the course material, and may not be sold to any person or entity in any form. Any student engaged in or contributing to the commercial exchange of notes or course materials will be subject to discipline, including academic misconduct charges, in accordance with University policy. Please note: note-taking provided by a student volunteer for a student with a disability, as a reasonable accommodation under the ADA, is not the same as commercial note-taking and is not covered under this policy.