

## **SIE 295S Systems Engineering Colloquium Fall 2018**

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Class Hours: 3:00 p.m. to 3:50 p.m. Monday

Office Hours:

M, W, F      9:00 a.m. to 11:00 a.m.  
or by appointment

### **COURSE DESCRIPTION**

A colloquium designed to help students understand career opportunities for Systems Engineering (SYE) professionals. Students will interact with speakers and work environments, and explore various roles of SYE in solving real engineering problems. The course helps students select course options within the degree program and helps focus on possible application areas.

### **INSTRUCTIONAL OBJECTIVES**

Understand course options available in the SIE Department programs.

Gain exposure to diverse techniques, methods, and applications of SYE.

Build professional networks, write resumes, and successfully interview for future career opportunities.

### **COURSE REQUIREMENTS**

Attendance: Attendance for this course in highly emphasized.

Critiques: For each class session a critique report is required. Each critique should provide an overview about the speaker, visit, or topic; identify any specific information that you found relevant to your career decisions, and other observations of interest. Each critique will be approximately one page in length and submitted to the course D2L site not later than 8:00 a.m. AST of the following Friday. In addition, if you are not in attendance in class, it is not possible for you to prepare a critique. Please do not submit a critique if you are not present in class. (Yes, you must submit a critique for the first class – August 20, 2018).

Resume: Students should develop a professional resume that can be used to search for a summer internship or professional position. A draft resume is due September 24, 2018.

Feedback will be provided as needed to develop the final resume. Final Resumes are due on October 29, 2018.

Plan of study: A first draft plan of study that details the courses that you intend to take and the semester you intend to take them is due by September 10, 2018. This plan should include technical electives. A final draft plan of study is due on October 15, 2018. The plan can be revised in future semesters but is intended to be a good initial start.

Term Project: Students will gather information on a specific field, specialization, or activity within engineering that is of particular interest to them. The information should pertain to employment options and availability within the area of interest, qualifications and/or education required for entry into the area, representative examples of responsibilities and deliverables for practitioners in the area. Students will present their gathered information in an expository essay of not more than five pages, excluding references, title page, and abstract, in APA format, and in an oral presentation to the class. Visual aids for the presentation may be used, but are not required. Essays are due on November 19, 2018. Presentations will begin that same day. Presentations should be no less than three minutes, and no more than five minutes in duration, excluding questions and discussion.

### **TEXTBOOK**

There is no assigned textbook for this course. The University of Arizona learning management system, D2L, will be the primary means of communication outside of class.

### **PREREQUISITES**

SIE 250 or SIE 265, or concurrent enrollment.

### **COURSE EVALUATION**

|                     |                                   |
|---------------------|-----------------------------------|
| Attendance .....    | 30%                               |
| Critiques.....      | 30%                               |
| Resume .....        | 10% (3% draft, 7% final)          |
| Plan of Study ..... | 5% (2% draft, 3% final)           |
| Term Project .....  | 25% (10% essay, 15% presentation) |

Final Grade: A (90~100), B (80~89), C (70~79), D (50~69), E (<50)

### **ABSENCE AND CLASS PARTICIPATION POLICY**

Participating in course and attending lectures and other course events are vital to the learning process. As such, attendance is required at all lectures and discussion section meetings. Students who miss class due to illness or emergency are required to bring documentation from their healthcare provider or other relevant, professional third parties. Failure to submit third-party documentation will result in unexcused absences.

The UA's policy concerning Class Attendance, Participation, and Administrative Drops is available at: <http://catalog.arizona.edu/2015-16/policies/classatten.htm>

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable, <http://policy.arizona.edu/human-resources/religious-accommodation-policy>.

Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored. See: <http://uhap.web.arizona.edu/policy/appointed-personnel/7.04.02>

## **CLASSROOM BEHAVIOR POLICY**

To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (i.e. texting, chatting, reading a newspaper, making phone calls, web surfing, etc). Students are asked to refrain from disruptive conversations with people sitting around them during lecture. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

## **THREATENING BEHAVIOR POLICY**

The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to one's self. See:

<http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students>.

## **ACCESSIBILITY AND ACCOMMODATIONS**

Our goal in this classroom is that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also welcome to contact Disability Resources (520-621-3268) to establish reasonable accommodations. For additional information on Disability Resources and reasonable accommodations, please visit <http://drc.arizona.edu/>. If you have reasonable accommodations, please plan to meet with me by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate. Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

## **CODE OF ACADEMIC INTEGRITY**

Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See:

<http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity>.

## **UA NONDISCRIMINATION AND ANTI-HARASSMENT POLICY**

The University is committed to creating and maintaining an environment free of discrimination,

<http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy>

## **SUBJECT TO CHANGE STATEMENT**

Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.

## COURSE ACTIVITIES SCHEDULE

| Date   | Topic                                                                                                                 |
|--------|-----------------------------------------------------------------------------------------------------------------------|
| Aug 20 | Course intro; academic programs                                                                                       |
| Aug 27 | What is Systems Engineering                                                                                           |
| Sep 3  | Labor Day, no class meeting                                                                                           |
| Sep 10 | Resumes <span style="float: right;"><i>1<sup>st</sup> draft plan of study due</i></span>                              |
| Sep 17 | Speaker, recent graduate / early career transition                                                                    |
| Sep 24 | Job interviews <span style="float: right;"><i>1<sup>st</sup> draft resume due</i></span>                              |
| Oct 1  | Job interviews in-class exercise                                                                                      |
| Oct 8  | Speaker, SIE Department Undergrad Advisor                                                                             |
| Oct 15 | Speaker, Systems Engineering in manufacturing <span style="float: right;"><i>final draft plan of study due</i></span> |
| Oct 22 | Trade studies and decision processes                                                                                  |
| Oct 29 | Job interviews practical exercise with industry <span style="float: right;"><i>final draft resume due</i></span>      |
| Nov 5  | Decision process practical exercise                                                                                   |
| Nov 12 | Speaker, Engineers in the management track                                                                            |
| Nov 19 | Student presentations                                                                                                 |
| Nov 26 | Student presentations                                                                                                 |
| Dec 3  | Speaker, earning your engineering degree in Yuma                                                                      |