

Work Experience in Biological Engineering

ABE 4949

Class Periods: N/A

Location: N/A

Instructor:

Dr. Ana Martin-Ryals

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(352) 294-6708

Office Hours: Email for appointment

Course Description

Work experience in the biological engineering industry with advisor approval (S-U). 1-3 credits

Course Pre-Requisites

Advisor Approval

Course Objectives

Students will gain practical engineering skills through part-time or full-time biological engineering related work experience.

Materials and Supply Fees

None

Professional Component (ABET):

ABET related learning outcomes will not be assessed in this course.

Relation to Program Outcomes (ABET):

Outcome
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. An ability to communicate effectively with a range of audiences
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Required Textbooks and Software

None

Recommended Materials

None

Attendance Policy, Class Expectations, and Make-Up Policy

Excused absences must be consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>) and require appropriate documentation.

The student will maintain appropriate working hours as determined by her/his supervisor and maintain regular contact with the ABE Department Undergraduate Coordinator or ABE Academic Advisor. To register for Work Experience in Biological Engineering, the student must submit the Registration Request form and a short list of expected responsibilities to the ABE Academic Office **at least one day prior to the drop/add period by 5:00 pm**. The Registration Request form is located at <https://abe.ufl.edu/undergraduate/resources/>.

ABE4949: Work Experience for Biological Engineering is a variable credit course that may be applied toward the elective requirements for the BE undergraduate degree. *Internships must contain engineering components to be used for Engineering or Department Elective credits.* Students may register for ABE4949 for a maximum of three credits. If a student requests to complete the internship for 0 credit, then the student is expected to fulfill all requirements as if they are registered for 1 credit. This course may only be taken S/U (Satisfactory/Unsatisfactory). Registration for the course is handled through the ABE Academic Office.

Students can enroll in a combined total of 6 credit hours of EGN4912 and ABE4949 during their undergraduate study in the ABE Department.

The number of credits assigned for this course is determined based on the number of hours the student works per week during the internship and the total number of hours completed over the course of the term.

- ***Summer A or B term (at least 6 weeks in length):***
 - 1 credit = 20 hours per week (120 hours of work total)
 - 2 credits = 40 hours per week (240 hours of work total)
- ***Summer C term (at least 12 weeks in length):***
 - 1 credit = 10 hours per week (120 hours of work total)
 - 2 credits = 20 hours per week (240 hours of work total)
 - 3 credits = 30 hours per week (360 hours of work total)
- ***Fall/Spring terms (at least 15 weeks in length):***
 - 1 credit = 8 hours per week (120 hours of work total)
 - 2 credits = 16 hours per week (240 hours of work total)
 - 3 credits = 24 hours per week (360 hours of work total)

Evaluation of Grades

The grade for this internship (S or U) will be determined by the ABE Department Undergraduate Coordinator. In order to receive a grade of Satisfactory (S), a 3-4 page Post-Internship Report written by the student and submitted into the designated assignment on the ABE Canvas site, and the Qualtrics Employer Evaluation completed by the student's supervisor must be submitted by no later than 5:00 pm on the last day of class during the term in which the internship is completed. Clarification of the report or supplemental information may be requested by the academic advisor upon review of the report.

The Post-Internship Report is the student's self-assessment of knowledge and skills learned while participating in the internship and a summary of the roles and responsibilities assumed during this time. The Post-Internship Report should have margins of 1 inch, line spacing of 1.5 lines (single-spaced and double-spaced are not acceptable formats), and font size of 12 point. The document should be no less than 3 pages but no more than 4 pages total in length.

The grade will be based on: (1) the quality of the Post-Internship Report, (2) the scope of the internship project, and (3) the Employer Survey. The following grading system will be used:

Post-Internship Report

- U = Report DOES NOT clearly express knowledge/skills learned (e.g. lacks sufficient detail or poor presentation or excessive grammatical errors)
- S = Report DOES clearly express knowledge/skills learned (e.g. sufficient detail and effective presentation and minimal grammatical errors)

Scope of Internship Project

- U = Project deemed trivial and not representative of credit hours enrolled
- S = Project demonstrates a substantive level of work commensurate with credit hours enrolled

Employer Survey

- U = Qualtrics survey is not returned or student DID NOT perform at a satisfactory level (e.g. was not present and working the specified hours/week)
- S = Qualtrics survey was returned and student DID perform at a satisfactory level (e.g. was present and working the specified hours/week)

A score of S for each of the three grading categories is required to receive a course grade of Satisfactory (S). If the Post-Internship Report and Employer Survey are not submitted by the deadline indicated above, the student will receive a grade of Unsatisfactory (U).

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.ua.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.ua.ufl.edu/public-results/>.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every

person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Graduate Program Coordinator
- Robin Bielling, Director of Human Resources, 352-392-0903, rbielling@eng.ufl.edu
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <https://registrar.ufl.edu/ferpa.html>

Campus Resources:

Health and Wellness

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the **Office of Title IX Compliance**, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: <https://care.dso.ufl.edu>.

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>.