

Introduction to Undergraduate Research in Computing

CEN4930 Section 21005

Class Periods: T | Period 6 (12:50 PM - 1:40 PM)

Location: TBD

Academic Term: Spring 2025

Instructor:

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Acting Instructor

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Supporting Instructors

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Course Description

This course covers basic research concepts, especially as they relate to computing. The course will cover the benefits, processes, and tools of undergraduate computing research. Students will engage in class discussions, read relevant research content, and practice with tools oftentimes required in computing research.

Course Pre-Requisites / Co-Requisites

EEL3701C & COP3530 or Instructor Permission

Course Objectives

By the end of the semester, successful students should be able to...

- Participate in the scientific process and how it is performed in undergraduate computing research
- Understand the spectrum between human-centered and technical computing research
- Differentiate between qualitative and quantitative research and how they are used in computing
- Know common tools used in research such as those used for common writing and publishing
- Submit artifacts such as posters and manuscripts to publications such as conferences and journals

Materials and Supply Fees

None.

Required Textbooks and Software

None.

Recommended Materials

None.

Course Schedule

Week 1:	Syllabus, Course Overview, Benefits & Resources
Week 2:	What is research? Types of Research: Technical & Human-Centered
Week 3:	Motivations of Research, Benefits, Introduction to Scientific Method
Week 4:	Common Publishing Tools: LaTeX Editors, Graph Creation
Week 5:	Ethics: Former malpractices, Institutional Review Board Review
Week 6:	Literature Review: Background Research, Scientific Databases
Week 7:	Methods: Context, Populations, Quantitative v. Qualitative

Week 8:	Data Collection: Surveys, Interviews, Experiments, Observations
Week 9:	Data Analysis: Significance, Hypothesis Testing, Card-Sorting
Week 10:	Discussion, Limitations, Future Work, Conclusion
Week 11:	Posters
Week 12:	Peer Review
Week 13:	Personal Platform: Tools like Google Scholar, ORCiD, Research Gates
Week 14:	Academic v. Industry Research
Week 15:	Makeup / Hurricane / Holiday / Speaker Presentations
Week 16:	Makeup / Hurricane / Holiday / Speaker Presentations

Attendance Policy, Class Expectations, and Make-Up Policy

Attendance is mandatory and will be taken each class at the beginning of each class period and throughout. Unexcused absences will result in no credit for class participation for that day. Tardy students will be eligible for 75% credit if arriving within 15 minutes of the start of class. Tardies beyond 15 minutes will be considered unexcused absences. No makeups will be provided unless due to emergency or pre-arranged and approved by the instructor. Excused absences must be consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>) and require documentation.

Course Expectations

Quiz make-ups will not be given except in extenuating circumstances. For make-up consideration, students will be required to submit written documentation from a reputable source as evidence. For any planned event (such as a wedding), the student is expected to contact the instructor no less than two weeks in advance for consideration. Please note that there is no guarantee that requests will be accommodated. Social, networking, and club events may be taken into consideration strictly at the discretion of the instructor.

Grade reviews must be requested within one week of a grade being posted. After two weeks, no grade will be revisited. In the event of a grade review, the entire assignment will be reviewed.

Students should act with honor and honesty in all assignments. Any student found to have violated these rules, whether a provider or receiver or unauthorized help, will be assigned a zero grade and referred to the Honor Court. **When in doubt, ask.**

Important correspondence (other than project help) should be engaged via email. In particular, the chat system is helpful for simple questions and allows students to help one another, but students should not expect a response to important questions via chat. Please allow 48 business hours for a response; the instructor and TAs have many responsibilities and respond to messages as efficiently as is practical.

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Participation (14-drop-2)	12 x 5 each	60%
Pre-Class Tasks (12-drop-2)	10 x 2.4 each	24%
Weekly Quizzes (12-drop-2)	10 x 1.5 each	15%
Professionalism	100	1%
TOTAL		100%

Grading Policy

The following is given as an example only.

Percent	Grade	Grade Points
90.0 - 100.0	A	4.00
87.0 - 89.9	A-	3.67
84.0 - 86.9	B+	3.33

81.0 – 83.9	B	3.00
78.0 - 80.9	B-	2.67
75.0 - 79.9	C+	2.33
72.0 – 74.9	C	2.00
69.0 - 71.9	C-	1.67
66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:

<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/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://www.dso.ufl.edu/sccr/process/student-conduct-honor-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.

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: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

Campus Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

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 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://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

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