PHY 495: Independent Study (Fall 2020, CRN 97806)

Instructor: Dr. Eric Edlund

SUNY Cortland, Physics Department

Course Meeting Times & Location

Lecture: NA Room: NA

Contact Info

Email: eric.edlund@cortland.edu

Phone: 753-5697 Office: Bowers 133

Preferred contact method is email.

Office Hours

Mon. & Wed. 2:00 PM - 3:30 PM Thursday 2:00 PM - 4:00 PM

You may also schedule a meeting outside of these times, either in person or using

≤ 59.9 %

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Microsoft Teams.

Assessment Weighting

Participation 50% Final Report 50%

Course Grade Scale

 $76.7\% \le C+ \le 79.9\%$ $93.4\% \le A$ $73.4\% \le C \le 76.7\%$ $90.0\% \le A- \le 93.3\%$ $70.0\% \le C- \le 73.3\%$ $86.7\% \le B+ \le 89.9\%$ $83.4\% \le B \le 86.6\%$ $80.0\% \le B- \le 83.3\%$ $66.7\% \le D+ \le 69.9\%$ $63.4\% \le D \le 66.6\%$ $60.0\% \le D- \le 63.3\%$

Course Catalog Description

Directed or independent research in a topic.

Student Learning Outcomes

These student learning outcomes are the student's guide to what should be achieved within this course.

- Independently identify, interpret, and apply the mathematical methods involved in the topic under study to the degree of competence required by a 400 level course.
- Identify and apply the differences between the various foundational elements in the topic under study to the degree of competence required by a 400 level course.
- (Optional) work on a research-based problem based on the learned material, under supervision by the instructor.

Course Policies

Meetings: Student and instructor will have once-weekly meetings, at a minimum, to maintain contact and discuss problems, challenges and progress on the project.

Research: The primary weighting of this course is on the work that will be done more-or-less independently of the instructor. The student should make steady progress on the work by outlining a series of independent steps to achieve the project goals.

Report: Each student will be required to submit a report by the end of the summer session that is at least 4 pages in length. This report should be written in the form of a scientific or technical report. Where appropriate, it should include citations. A template will be provided to the students as a guide to what is expected.

Important Dates	
Monday 9/31	Start of Fall Semester
Monday 12/18	Conclusion of the semester, all final work due

Course Schedule

Note that this is a tentative schedule and is subject to change as necessary and by input from the students.

Weeks	Dates			Topic
1	9/31	to	10/4	Define problem
2	10/7	to	10/11	Block diagram of calculations
3-8	10/14	to	10/23	Develop code and reproduce existing results
9-15	10/26	to	12/11	Develop extensions to problem
16	12/14	to	12/18	Finals week, report due at end of week

SUNY Cortland Policies and Statements

Academic Integrity Statement: All students are expected to uphold academic integrity standards. Plagiarism is defined as taking the ideas of others and using them as one's own without due credit. Students who cheat in examinations, course assignments, or plagiarize in this course may be disciplined in accordance with university rules and regulations. SUNY Cortland College Handbook, Chapter 340.

Disability Statement: As part of SUNY Cortland's commitment to a diverse, equitable, and inclusive environment, we strive to provide students with equal access to all courses. If you believe you will require accommodations in this course, please place a request with the Disability Resources Office at disability.resources@cortland.edu or call 607-753-2967. Please note that accommodations are generally not provided retroactively so timely contact with the Disability Resources Office is important. All students should consider meeting with their course instructor who may be helpful in other ways. SUNY Cortland College Handbook, Chapter 745.

Diversity Statement: SUNY Cortland is dedicated to the premise that every individual is important in a unique way and contributes to the overall quality of the institution. We define diversity broadly to include all aspects of human difference. The College is committed to inclusion, equity, and access and thus committed to creating and sustaining a climate that is equitable, respectful and free from prejudice for students, faculty and staff. We value diversity in the learning environment and know that it enhances our ability to inspire students to learn, lead and serve in a changing world. We are committed to promoting a diverse and inclusive campus through the recruitment and retention of faculty, staff and students. As a community, we hold important the democracy of ideas, tempered by a commitment to free speech and the standards of inquiry and debate. To this end, we are dedicated to developing and sustaining a learning environment where it is safe to explore our differences and celebrate the richness inherent in our pluralistic society. SUNY Cortland College Handbook, Chapter 130.

Inclusive Learning Environment Statement: SUNY Cortland is committed to a diverse, equitable and inclusive environment. The course instructor honors this commitment and respects and values differences. All students enrolled in this course are expected to be considerate of others, promote a collaborative and supportive educational environment, and demonstrate respect for individuals with regard to ability or disability, age, ethnicity, gender, gender identity/expression, race, religion, sex, sexual orientation, socioeconomic status or other aspects of identity. In an environment that fosters inclusion, students have the opportunity to bring their various identities into conversation as they find helpful, but are not expected to represent or speak for an entire group of people who share aspects of an identity. If you have any questions or concerns about this statement, contact the Institutional Equity and Inclusion Office at 607-753-2263. http://www2.cortland.edu/about/diversity/

Title IX Statement: Title IX, when combined with New York Human Rights Law and the New York Education Law 129-B, prohibits discrimination, harassment and violence based on sex, gender, gender identity/expression, and/or sexual orientation in the education setting. The federal Clery Act and NY Education Law 129-B provide certain rights and responsibilities after an incident of sexual or interpersonal violence. When a violation occurs, victims and survivors are eligible for campus and community resources. Where the College has jurisdiction, it may investigate and take action in accordance with College policy. If you or someone you know wishes to report discrimination based in sex, gender, gender identity/expression, and/or sexual orientation, or wishes to report sexual harassment, sexual violence, stalking or relationship violence, please contact the Title IX Coordinator at 607-753-4550, or visit http://www2.cortland.edu/titleix to learn about all reporting options and resources. Updated by SUNY Legal on February 1, 2018.