

ECE 303: Introduction to Communication Principles

Tuesday Thursday 3:30pm ~ 4:45pm, Natural Resources 140, 3 credits

Instructor: J. Rockey Luo, B118, Engr Bld., (970) 491-7411, rokey@colostate.edu

Office Hours: Tuesday Thursday, 1:00pm to 3:00pm, or by appointment.

Teaching Assistant: Nazanin Mirhosseini, Nazanin.Mirhosseini@colostate.edu

Recitation with the TA (from Jan. 30): Tuesdays, 5:30pm to 6:20pm, Engr. 120.

Prerequisites: (concurrent) MATH340

Textbook: Roy D. Yates and David J. Goodman, "Probability and Stochastic Processes: A Friendly Introduction for Electrical and Computer Engineers", 3rd Edition, John Wiley & Sons, 2014. (ISBN 978-1-118-32456-1)

Grading

- 5% Knowledge Integration (KI)
- 20% Homework (the best 10 out of 12 are counted)
- 7% Team quizzes (the best 75% are counted)
- 20% Midterm 1 (LSM 1a and 1b)
- 20% Midterm 2 (LSM 2 and 3)
- 28% Final exam (LSMs 1 - 6)
- 2% Bonus Math Foundation (extra credit)

Calendar

Jan. 16	First day of class
Feb. 22	Midterm 1, Thursday
Mar. 3	Pre-work due for KI 1
Mar. 5	KI 1, with ECE202 lecture
Mar. 9 – 17	Spring break
Apr. 11	Midterm 2, Thursday
Apr. 30	Pre-work due for KI 2
Apr. 30	KI 2, with ECE303 lecture
May 2	Last day of class
May 6 at 2:00pm	Final exam, Natural Resources 140

Course Materials & Equipment

An education MATLAB license is provided by CSU
Assignments, handouts, and grades will be posted on Canvas. Check this site regularly.

Participation/Behavioral Expectations

For successful completion of the course, it is expected that students spend on average 3 hours/week attending lectures and recitations, 9 hours/week solving assignments, 4 hours/week reading the textbook or handouts, and 1 hour/week solving additional problems.

Students should refrain from using laptops and mobile phones during class.

Math Foundation

Math Foundation extra credit consists of two components: attending lectures and solving problems sets. The Math Foundation course is intended to prepare students for completing the mathematical procedures required in ECE problems.

1% bonus extra credit for any student who attends at least seven math foundation lectures.
1% bonus extra credit for any student who receives an average grade of 85% or more on math foundation problem sets.

Math Foundation TA: Milton Kundu, Milton.Kundu@colostate.edu

Knowledge Integration (KI)

There will be two KI models done in combination with ECE 202. KI grade consists of two components: pre-work and video presentation. Video presentations are peer-assessed. During the KI students must attend the ECE 202 lecture.

Pre-work is due a few days after the video review and will consist of a set of problems that students need to solve and will help them prepare for the project portion of the KI. These problems will be graded by the TA. Each KI will contain a Social Responsibility module designed to teach students about ethical questions in engineering. The Social Responsibility modules will include an article and a few questions. Students should answer the questions accordingly.

KI TA: Jose Catalan, Jose.Catalan@colostate.edu

Assignments

Each homework assignment will be due at midnight, a week from the posting date. Assignments are submitted in Canvas as a PDF file. Only your best 10 out of 12 assignments will count toward the final grade. Homework turned in after the due date requires prior approval from the instructor. The first week of class you will be given an additional assignment before the first traditional homework is posted. This additional assignment consists of reading the syllabus, and posting an introduction of yourself to your classmates. These assignments are not part of the 12 assignments mentioned above. In addition to homework assignments, you are also expected to read corresponding textbook chapters after each lecture. I assume you already read the material to be covered in each lecture.

Assignment guidelines

1. On the first page in the upper right-hand corner, write your first and last name, homework number, and course number.
2. Your solutions to the problems must be in the correct order.
3. Solutions can be hand-written or typed. Answers should be boxed or highlighted. There should be a logical flow to your homework. Solutions must be clear, and you must include how you reach your results. Writing only the final solution is not acceptable.
4. Use a computer or a ruler when making drawings.
5. All supporting material to solve a problem such as MATLAB codes should be submitted with the homework.
6. Please be neat and write legibly. If the grader can't read it, we will have to assume it is incorrect.
7. Written solutions may be scanned into the computer and submitted as a pdf. Make sure document is readable before submitting. Adobe Scan is a free app that can be used to make a pdf from your smart phone.
8. Students **may not use** a solutions manual or copy any part of an assignment from another student, including those from previous years.

Team Quizzes

Quizzes will be given during class once or twice a week. Quizzes can be solved by a team of 1-4 students, but everyone needs to submit his/her answers individually. The quizzes may cover any portion of the material covered in class. You are not allowed to use any electronic devices during the quizzes (including calculators, smart phones, etc.) and all quizzes are closed book. The use of a phone during a quiz will automatically result in a grade of zero in all your quizzes in the semester. *Contact the instructor if you are sick to get an excuse from the quiz.* It is your responsibility to arrive to classes on time for the quizzes, the quiz will be graded as a team and only students that arrive on time for the quiz will receive a grade. Only the best 75% of the quizzes count toward the final grade.

Exams

There will be 2 midterms and 1 final exams. Each midterm is specific to a Learning Studio Module (LSM). Demonstrating **competency in each Learning Studio Module (LSM)** of the course is required. Competency is assessed through the midterm exams. Students who do not demonstrate competency in an LSM will be notified after the corresponding exam and will be given the opportunity to gain competency by completing remedial course-related work, assigned by the instructor. Completing the remedial work in a satisfactory fashion establishes the student's competency in the corresponding LSM, but does not affect the student's grade. However, if the remedial work is not completed in a satisfactory fashion the student will automatically receive the grade F in the course.

Exams are closed book, but you can prepare one hand-written sheet of notes (letter-sized paper, front and back). You should bring to the exams **a calculator, your handwritten note sheet, and scratch paper** to do calculations. The use of cell phones is not allowed.

Canvas Information, Technical Support, & MATLAB Access

Canvas is the place where course content, grades, and communication will reside for this course.

- Login: canvas.colostate.edu
- Support: info.canvas.colostate.edu
- For passwords or any other computer-related technical support, contact the Central IT Technical Support Help Desk.
 - (970) 491-7276
 - help@colostate.edu

The Technical Requirements page identifies the browsers, operating systems, and plugins that work best with Canvas. If you are new to Canvas, please quickly review the Canvas Student Orientation materials.

You can access MATLAB on your home computer by going to this link: <https://www.engr.colostate.edu/ets/matlab/>. This is probably the easiest option. If you prefer, you can alternatively access the Engineering Virtual Classroom by going to this link: <https://www.engr.colostate.edu/ets/virtual-classroom/> where MATLAB is already installed.

Academic Integrity & CSU Honor Pledge

This course will adhere to the CSU Academic Integrity/Misconduct policy as found in the General Catalog and the Student Conduct Code.

Further information about Academic Integrity is available at CSU's Academic Integrity – Student Resources.

Universal Design for Learning/Accommodation of Needs

If you are a student who will need accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying memo from The Student Disability Center may be required before any accommodation is provided.

The Student Disability Center (SDC) has the authority to verify and confirm the eligibility of students with disabilities for the majority of accommodations. While some accommodations may be provided by other departments, a student is not automatically eligible for those accommodations unless their disability can be verified and the need for the accommodation confirmed, either through SDC or through acceptable means defined by the particular department. Faculty and staff may consult with the SDC staff whenever there is doubt as to the appropriateness of an accommodative request by a student with a disability.

The goal of SDC is to normalize disability as part of the culture of diversity at Colorado State University. The characteristic of having a disability simply provides the basis of the support that is available to students. The goal is to ensure students with disabilities have the opportunity to be as successful as they have the capability to be.

Support and services are offered to student with functional limitations due to visual, hearing, learning, or mobility disabilities as well as to students who have specific physical or mental health conditions due to epilepsy, diabetes, asthma, AIDS, psychiatric diagnoses, etc. Students who are temporarily disabled are also eligible for support and assistance.

Any student who is enrolled at CSU, and who self-identified with SDC as having a disability, is eligible for support from SDC. Specific accommodations are determined individually for each student and must be supported by appropriate documentation and/or evaluation of needs consistent with a particular type of disability. SDC reserves the right to ask for any appropriate documentation of disability in order to determine a student's eligibility for accommodations as well as in support for specific accommodative requests. The accommodative process begins once a student meets with an accommodations specialist in the SDC.

Copyrighted Course Materials

Please do not share material from this course in online, print, or other media. Course material is the property of the instructor who developed the course. Materials authored by third parties and used in the course are also subject to copyright protections. Posting course materials on external sties (commercial or not) violates both copyright law and the CSU Student Conduct Code. Students who share course content without the instructor's express permission, including online sites that post materials to sell to other students, could face appropriate disciplinary or legal action.

Undocumented Student Support

Any CSU student who faces challenges or hardships due to their legal status in the United States and believes that it may impact their academic performance in this course is encouraged to visit Student Support Services for Undocumented, DACA & ASSET for resources and support. Additionally, only if you feel comfortable, please notify your professor so they may pass along any additional resources they may possess.

Title IX/Interpersonal Violence

For the full statement regarding role and responsibilities about reporting harassment, sexual harassment, sexual misconduct, domestic violence, dating violence, stalking, and retaliation policy please go to: Title IX – Sexual Assault, Sexual Violence, Sexual Harassment.

If you feel that your rights have been compromised at CSU, several resources are available to assist:

- Student Resolution Center, 200 Lory Student Center, 491-7165

- Office of Equal Opportunity, 101 Student Services, 491-5836

A note about interpersonal violence: If you or someone you know has experienced sexual assault, relationship violence and/or stalking, know that you are not alone. As instructors, we are required by law to notify university officials about disclosures related to interpersonal violence. Confidential victim advocates are available 24 hours a day, 365 days a year to provide support related to the emotional, physical, physiological and legal aftermath of interpersonal violence. Contact the Victim Assistance Team at: 970-492-4242.

Religious Observances

CSU does not discriminate on the basis of religion. Reasonable accommodation should be made to allow individuals to observe their established religious holidays. Students seeking an exemption from attending class or completing assigned course work for a religious holiday will need to fill out the Religious Accommodation Request Form and turn it in to the Division of Student Affairs, located on the second level of the Administration building.

Once turned in, the Division of Student Affairs will review the request and contact the student accordingly. If approved, the student will receive a memo from the Dean of Students to give to their professor or course instructor.

Students are asked to turn in the request forms as soon as the conflict is noticed. Similarly, unanticipated conflicts requiring a religious observance, such as a death in the family, can also be reviewed.

CSU Principles of Community

Inclusion: We create and nurture inclusive environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents and contributions.

Integrity: We are accountable for our actions and will act ethically and honestly in all our interactions.

Respect: We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.

Service: We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.

Social Justice: We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all aspects.

Diversity and Inclusion

The Mission, Vision, and Focus webpage of the Vice President for Diversity includes a comprehensive statement of CSU's commitment to diversity and inclusion.