ECE 493/593 Syllabus

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Office: ENGR E-114  
Office Phone: 618-453-7034

Office Hours: TR, 10:00 am – 1:00 pm
Lecture: TR, 5:00 pm – 6:15 pm, E-136

Grading/Evaluation:

- Homework and Projects 30%
- Exam one 30%
- Final Exam 40%

Classroom Policies:

A. Attendance Policy: Attendance should be considered mandatory, will be taken at random times throughout the semester, and will be counted toward the final grade within the homework and quiz scores. Students are responsible for all announcements made in class and/or posted on SIU Online.

B. Late Homework/Missed Exams: Late homework will not be accepted. If an exam is to be missed for a legitimate reason, I should be notified in advance if at all possible and an alternate exam will be given at a designated time.

C. Mobile Technology Policy: Use of electronic devices within the classroom should be avoided. Your phone should be placed on silent when the class begins. During exams or quizzes, all electronics will be placed under the desk or within your bag.
D. **Homework:** Assignments may require you to work individually or in teams. In case of team assignments, one solution must be submitted by each team. All submissions must be made online. Programming assignments will be evaluated based upon fulfillment of functional requirements, coding style and documentation. If a student’s name appears on a solution set, it certifies that he/she has participated in solving the problems. You are responsible for collaborative work within your group. It is imperative that you address lack of participation prior to turning in an assignment to ensure full credit. You may do so by first consulting the TA (and then the instructor if necessary) in case of problems that cannot be resolved within your group.
ECE 493/593 Syllabus

1. **Course number and name:** ECE 493/593 Principles of Systems programming
2. **Contact hours:** Two 75-minute sessions per week
3. **Course Committee:** I. Anagnostopoulos, D. Kagaris, K. Chen
4. **Textbook(s), title, author, and year:**

5. **Specific course information**
   Catalog Description: Introduction to concepts, techniques and tools to develop complex software to manage hardware resources. Operating system modules and interfaces, kernel development, process scheduling, dynamic memory control, device drivers. Design methodologies to meet system requirements specifications.
   a. **Prerequisites or co-requisites:** ECE-321, with a grade of “C” or better.
   b. **Indicate whether a required, elective, or selected elective (as per Table 5-1) course in the program:** Required for CpE majors

6. **Instructional Objectives** (with SO’s)
   The student is expected to be able to:
   1. Understand the principles of operating systems (Unix, Windows) and be able to adapt to different programming environments.
   2. Understand the terms of programming process, deadlock, CPU scheduling, memory management and API, semaphores and file management.
   3. Understand the principles of system-based functions and APIs.
   4. Understand the principles of software stack, with special focus on operating systems.

7. **CAD and Computer Tools Used:** Windows (Visual Studio IDE), Unix (GCC)

8. **Assessment of the Contribution to Student Outcomes**

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<th>Outcome</th>
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<td>Assessed</td>
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**University Policies**

A. **Incomplete Grades:** An INC is assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments. An INC must be changed to a completed grade within a time period designated by the instructor
but not to exceed one year from the close of the term in which the course was taken, or graduation, whichever occurs first. Should the student fail to complete the course within the time period designated, not to exceed one year, or graduation, whichever comes first, the incomplete will be converted to a grade of F and the grade will be computed in the student’s grade point average. Students should not reregister for courses in which an INC has been assigned with the intent of changing the INC grade. Re-registration will not prevent the INC from being changed to an F.

B. Academic Integrity: You are expected to submit your original work and adhere to the academic policies as stated in the SIU Student Conduct Code: http://srr.siu.edu (listed under Additional Links). Any act of academic dishonesty, cheating, or plagiarism in any form, including anonymous internet sources used in student papers, will be reported. These acts are taken seriously and the consequences may range from failing as assignment to expulsion from the university.

C. SIU Email: Your SIU email account is an official form of University communication. Your instructor will use SIU email as a primary means of electronic communication with students. Please make sure that you maintain a valid password and acquire the habit of regularly checking your SIU eail account for important instructor and University announcements. You may view the official SIU Student Email Policy at: http://policies.siu.edu/policies/email.html.

D. Emergency Procedures: SIU is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with SIU Emergency response Plan and building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on BERT’s website at http://www.bert.siu.edu/, the SIU Department of Public Safety’s website www.dps.siu.edu (disaster dropdown and video, “Shots Fired”), and in the Emergency Response Guideline pamphlet. Know how to respond to each type of emergency. Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.

E. Supplementary Assistance: SIU is committed to assisting students with disabilities. With the cooperation of SIU’s Disability Support Services (DSS), each student who qualifies for reasonable supplementary assistance has the right to receive it. Students requesting supplementary assistance must first register with DSS in Woody Hall, B-150,
618-453-5738 or 618-453-2293 (TTY), by email DSS@siu.edu, or http://disabilityservices.siu.edu/. Notice: If you have any type of special need(s) or disability for which you require accommodations to promote your learning in class, please contact me as soon as possible. The Office of Disability Support Services (DSS) offers various support services and can help you with special accommodations. You may wish to contact DSS to verify your eligibility and options for accommodations related to your special need(s) or disability.

Student Services

A. **Learning Support Services:** The Center for Learning Support Services (CLSS) assists students of all cultures, abilities, backgrounds and identities with enhancing their self-management and interdependent learning skills. Programs offered by CLSS include: group study sessions; math tutoring; academic coaching; early intervention program; and study skills seminars. For additional information please contact CLSS in Woody Hall, Room A-313, 618-453-2925, or www.tutoring.siu.edu.

B. **Writing Center:** The Writing Center offers free tutoring services and assistance with improving writing skills to all SIU undergraduate students and faculty. For center locations and hours, to schedule an appointment online, and to view information regarding the Online Writing Lab (OWL) contact the Writing Center at 618-453-1231 (Morris Library location); 618-453-2927 (Trueblood location), or www.write.siu.edu.

C. **Saluki Cares:** The purpose of Saluki Cares is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial or personal. By working closely with faculty, staff, students and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. To make a referral to Saluki Cares click, call or send: http://salukicares.siu.edu/index.html; 618-453-5714, or siucares@siu.edu.
SAFETY AWARENESS FACTS AND EDUCATION

Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: [http://safe.siu.edu](http://safe.siu.edu)

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EMERGENCY PROCEDURES

Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. We ask that you become familiar with the SIU Emergency Response Plan and Building Emergency Response Team (BERT) programs. Emergency response information is available on posters in buildings on campus, available on BERT’s website at www bert.siu.edu, Department of Safety’s website at www dps.siu.edu (disaster drop down) and the Emergency Response Guideline pamphlet. Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. **It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency.**

INCLUSIVE EXCELLENCE

SIU contains people from all walks of life, from many different cultures and subcultures, and representing all strata of society, nationalities, ethnicities, lifestyles, and affiliations. Learning from and working with people who differ is an important part of education as well an essential preparation for any career. For more information please visit: [http://www.inclusivexcellescence.siu.edu/](http://www.inclusivexcellescence.siu.edu/)

LEARNING AND SUPPORT SERVICES

Help is within reach. Learning support services offers free tutoring on campus and math labs. To find more information please visit the Center for Learning and Support Services website:

**Tutoring:** [http://tutoring.siu.edu/](http://tutoring.siu.edu/)

**Math Labs** [http://math.siu.edu/courses/course-help.php](http://math.siu.edu/courses/course-help.php)

WRITING CENTER

The Writing Center offers free tutoring services to all SIU students and faculty. To find a Center or Schedule an appointment please visit [http://write.siu.edu/](http://write.siu.edu/)

AFFIRMATIVE ACTION & EQUAL OPPORTUNITY

Our office's main focus is to ensure that the university complies with federal and state equity policies and handles reporting and investigating of discrimination cases. For more information visit: [http://diversity.siu.edu/](http://diversity.siu.edu/)

Additional Resources Available:

**SALUKINET:** [https://salukinet.siu.edu/cp/home/displaylogin](https://salukinet.siu.edu/cp/home/displaylogin)

**ADVISEMENT:** [http://advisement.siu.edu/](http://advisement.siu.edu/)

**PROVOST & VICE CHANCELLOR:** [http://pvcaas.siu.edu/](http://pvcaas.siu.edu/)

**SIU ONLINE:** [http://online.siu.edu/](http://online.siu.edu/)