



CS 3360.004 – Computing Systems Fundamentals

Fall 2026 Syllabus, Section 004

Credit Hours: 3

Instructor Information

Jelena Tešić, Ph.D. Title: Associate Professor. Email: jtesic@txstate.edu. Office: Comal 307.

Office Hours (Fall 2026): Tuesday and Thursday 10:30 – noon, on MS Teams or in person in Comal 307B or in Derrick Mezzanine. Schedule the meeting by contacting the instructor on MS Teams, NetID: j_t463. **Meeting by appt ONLY. Contact the instructor on MS Teams.**

MD Shantanu Rahman Title: Doctoral Instructional Assistant. Email: mshantanu@txstate.edu. Office TBD.

Office Hours: Mondays and Wednesdays 10 – 11 AM on Comal 307 Rotunda. **Meeting by appt ONLY. Contact the DIA on MS Teams.**

Meeting Times and Location

Lesson Times are Tuesday and Thursday, 08:00 AM - 09:20 AM, in Derrick Hall 240. If the lesson is on Zoom, it will be announced in time and recorded.

Course Description

This course covers fundamental concepts underlying the design and implementation of computing systems. Topics include performance evaluation, queueing systems and scheduling, communication and networks, parallel programming, and synchronization. Students will explore key concepts, examine critical issues, and study classic solutions across these topics. After completing the course, students should be able to describe a variety of problems that recur in computing systems, analyze their causes and impacts, and apply appropriate tools and algorithms to solve them.

Student Learning Outcomes

After this course, students should be able to:	
1	Describe different workload distribution models.
2	Analyze different queueing systems.
3	Implement different scheduling algorithms.
4	Investigate parallel programs and their synchronization.
5	Discuss inter-process communication and computer network architectures.

Teaching Modality

- The lessons are in person. If the lesson is online, it will be announced in advance and recorded.



- Students are expected to attend the lessons. Attendance will be taken at random throughout the semester.
- Lessons are recorded. Students will have access to the material. The instructor does not guarantee the completeness of the material as the lectures are recorded in class.

Course Materials

There is no required material for this course

Group	Title	Author
Recommend	Probability, Statistics, and Queueing Theory with Computer Science Applications, 2nd Edition.	Allen
Recommend	Operating Systems Concepts, 10th Edition.	Silberschatz, Galvin and Gagne

Grading Policy

Assessment	Number	Points	Make Up and Extra Credi
Quizzes	After each module, 7 modules, 2pt each	12	24h opened on Canvas. The lowest score dropped
Discussions	After each module, 7 modules, 2pt each	12	24h opened on Canvas. The lowest score dropped
Coding Assignments	After each module, 7 modules, 5 pt each	30	Due Fri EOD; accepted Sunday EOD, no makeup. Lowest score dropped
Midterm	Oct 13 th 8:00 AM	20	Contact the instructor to take it earlier
Final	Dec 10 th 8:00 AM	30	Contact the instructor to take it earlier
Participation	End of semester summary	6	Attendance, participation, DIA feedback
Total		115	

Grading Scale

A $\geq$ 90pt (Exceptional achievement)	80.0 pt $\leq$ B $\leq$ 89.9 pt (Above-average achievement)	65.0 pt $\leq$ C $\leq$ 79.9 pt (Average Satisfactory achievement)	F $\leq$ 65 pt (Failing/ Unsatisfactory performance)
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There is no D in this class as C is the minimum required grade as a precondition, so D is as good as F.

Classroom and Behavioral Expectations

Attendance and Absence Reporting: Regular attendance is essential to mastering course concepts. If you must miss class due to an official university-sponsored event (UPPS 02.06.03) or the observance of a



religious holy day (UPPS 02.06.01), notify the instructor in writing in advance. For unplanned absences, severe illness, or emergencies requiring documentation, submit an official request through the university's Absence Notifications portal.

Participation and Preparation: Active engagement is expected in every class session. Arrive on time, complete all assigned readings and materials prior to class, and contribute constructively to discussions, group activities, and peer reviews.

Civility and Respectful Discourse: In alignment with AA/PPS 02.03.01 (Courteous and Civil Learning Environment) and the Code of Student Conduct (Section 2.02), this class prioritizes mutual respect, academic freedom, and the open exchange of diverse perspectives. Critique ideas, not people. Disruptive conduct, persistent interruptions, or disregard for instructor directives will not be tolerated and may result in immediate dismissal from the class session and referral to Student Conduct.

Professional and Technology Standards: Treat the classroom as a professional environment. Silence mobile phones and stow personal electronics during lecture unless they are explicitly required for in-class coursework. Written correspondence must follow professional communication standards, including a clear subject line, polite greeting, and professional tone.

Artificial Intelligence Expectation Statement

Option C (AI Allowed with Attribution): AI tools may be used as collaborative learning aids for brainstorming, outlining, or feedback, where designated by assignment instructions. "AI" refers to text, code, or image-generating platforms, including ChatGPT, Gemini, and Microsoft Copilot. You remain fully responsible for verifying factual accuracy and maintaining original critical thought. Any AI-assisted work must include full transparency: specify the tool name, prompt history, and how the output was modified in your final submission.

Academic Integrity

Students are expected to uphold the highest standards of academic integrity in accordance with the Texas State University Honor Code and Code of Student Conduct. Violations: Academic dishonesty includes—but is not limited to—plagiarism, unauthorized collaboration, fabricating data, presenting uncredited generative AI content as your own, or submitting duplicate work without permission. Consequences: Suspected violations will result in course-level penalties (up to and including an automatic grade of "F" on the assignment or in the course) and mandatory referral to the Honor Code Council for official university adjudication.

University Policies and Resources

Need help and not sure where to start? Just Raise your hand.

If you're an undergraduate student and unsure where to start or need help with something specific – like tutoring, financial aid, or personal support – use the Hand Raise feature in [NavigateTXST](#). It's a quick way to let someone know you need assistance; a staff member will follow up to connect you with the right resources.

If you're a graduate student and unsure where to start or need help with something specific, you can reach



out to your [program department](#) or [The Graduate College](#) for assistance.

Health and Well-being Support

Feeling overwhelmed? Worried about a friend? Just need someone to talk to? We've got options:

- CARE Team: Submit a [Here to Help](#) form, and someone will reach out with 1-on-1 support and get you connected to the right campus resources.
 - [Counseling Center](#): In-person and virtual mental health services including short-term individual, group, and crisis counseling, as well as outreach and workshops.
 - [Student Health Center](#): Offers accessible, affordable care including medical, mental health, and wellness support.
 - [TimelyCare](#): FREE 24/7 virtual mental health support including immediate TalkNow chats and scheduled counseling sessions.
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Missing Class? Here's What to Know about Absence Notifications

Life happens—and sometimes that means missing class. Every professor has their own rules when it comes to absences, so it's important to reach out to them directly as soon as possible. If your absence is for a university-sponsored event or a religious holy day, check out [UPPS 02.06.03](#) and [02.06.01](#) to see what you need to do.

If your professor asks for documentation, fill out the form on the [Absence Notifications](#) page.

Want to learn more about what additional support is available to you? Visit the [Student Success website](#).

Instant Access to Your Course Materials

Undergraduate and graduate students are automatically enrolled in BookSmart @ TXST. BookSmart provides you with all your required course materials before your first day of class. Please visit our [BookSmart FAQ page](#) for more information.

Students will have access to the course materials until census (the 12th day of class). If you choose to opt out of the program, you will lose access after that date. This includes access to eBooks, courseware, homework and testing platforms, print materials, etc. You will be responsible for sourcing the required course materials on your own directly from the publisher or ordering individually at The Bobcat Store in the LBJ Student Center at regular retail price.

If you have any questions about BookSmart @ TXST or the charge to your student account, please contact The Bobcat Store via email at txstate@bkstr.com or call (512) 245-2273.

Class Instruction Modes and Substantive Interaction

Classes will be fully implemented in the instruction mode that appears on the spring 2026 Schedule of Classes in [Catsweb](#). In all courses, faculty members provide regular and substantive interaction with students. This interaction is instructor-driven, content-oriented, frequent, and consistent throughout the



semester.

Statement on Civility in the Classroom and Instructional Settings

Civility in instructional settings is fundamental to an effective educational process and is everyone's responsibility. The university's shared values, sense of community, and collective commitment to respect, civil dialogue, and the free exchange of ideas are the cornerstones of successful teaching and learning. If students have questions about appropriate behavior in a particular class, they should address them with their instructor first. Although rare, disciplinary procedures may be implemented for refusing to follow an instructor's directive, disrupting classroom activities, or disregarding university policies. For more information regarding conduct in the classroom, please review policies at [AA/PPS 02.03.01](#), Section 03: Courteous and Civil Learning Environment, and [Code of Student Conduct](#), number II, Responsibilities of Students, Section 2.02: Conduct Prohibited.

Academic Integrity and Student Conduct

Information regarding academic integrity and student code of conduct may be found at the links indicated below.

[Code of Student Conduct](#)

[The Honor Code](#)

Instructor Absences

Faculty who are absent from class coordinate with their department chairs/school directors to ensure continuity of instruction. In some cases, a faculty member teaching face-to-face may transition to remote learning for a brief period by using Zoom, Teams, Canvas, or other tools. For extended absences, another faculty member may be asked to assume responsibility for the class. Deans and department chairs/school directors may contact the Office of the Provost for support or guidance. Provisions for faculty sick leave are found in [UPPS 04.04.30](#), Section 03, Sick Leave Procedures.

Emergency Management

In the event of an emergency, students, faculty, and staff should monitor the [Safety and Emergency Communications web page](#). This page will be updated with the latest information available to the university, in addition to providing links to information concerning safety resources and emergency procedures. Faculty, staff, and students are encouraged to sign up for the [TXState Alert](#) system.

Diversity, Equity and Inclusion (SB17)

During the 88th Regular Session of the Texas Legislature, [Senate Bill 17](#) was passed and signed into law, effective January 1, 2024. SB 17 addresses diversity, equity, and inclusion initiatives at public higher education institutions. For an explanation of SB17's provisions along with questions and answers, please visit the [Texas State University System's General Counsel Guidance on Implementation of Senate Bill 17](#).

Sexual Misconduct Reporting (SB 212)

Effective January 2, 2020, state law (SB 212) requires all university employees, acting in the course and



scope of employment, who witness or receive information concerning an incident of sexual misconduct involving an enrolled student or employee to report all relevant information known about the incident to the university's Title IX office. According to SB 212, employees who knowingly fail to report or knowingly file a false report shall be terminated in accordance with university and system policy. Please access the webpage of the [Office of Equal Opportunity and Title IX](#) for more information.

Need Accommodations?

If you're managing ADHD, a learning difference, a health condition, or any disability, [Disability Services](#) (DS) can work with you to set up accommodations that support your learning. Reach out early—both staff and your instructors are here to support your success. You can contact DS at (512) 245-3451 or via email at ods@txstate.edu.

Schedule of Topics and Assignments

This is the planned schedule not the final one. Dates and content are subject to change.

Assignment	Number	Points	Make Up and Extra Credit
Quizzes	After each module, 7 modules, 2pt each, ~ biweekly	12	24h opened on Canvas. The lowest score dropped
Discussions	After each module, 7 modules 2pt each, ~ biweekly	12	24h opened on Canvas. The lowest score dropped
Coding Assignment	After each module, 7 modules, 5 pt each, ~ biweekly	30	Due Fri EOD; accepted Sunday EOD, no makeup. The lowest score dropped

Assessments

Midterm	Oct 13 th 8:00 AM	20	Contact the instructor to take it earlier
Final	Dec 10 th 8:00 AM	30	Contact the instructor to take it earlier

Additional Information

Topics covered in Class:

- Processes
- Metrics
- Workload Generation
- Discrete-Time Event Simulation
- Uniprocessor Scheduling
- Multiprocessor Scheduling
- Parallel Computing



- Synchronization
- Networks and Distributed Systems
- Virtualization

Disclaimer: The instructor reserves the right to make changes to the syllabus, including the topics to be covered. Important changes will be announced as early as possible.

Important Exam Information: Students MUST attend the in-person exams in the designated classroom and at the designated time for the section they registered for. Due to the seat limit, students are not allowed to take the exams in the classroom for the other section. The exams are in the most conventional, paper-and-pencil format, and there will be no online exam option.

Students in special situations (emergencies or unforeseeable circumstances, NOT just inconvenient ones) should email the instructor to discuss whether an alternative arrangement is possible well prior to the exam date.