CSCE 181 – Introduction to Computing
Fall 2022, Section 599

Location/Time: Online (Zoom), TR 2:20 - 3:35pm

Class Web Page: https://canvas.tamu.edu/courses/178285

Teaching Staff:

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Course Objectives:

The objectives of this course are to inform students about the field of Computer Science and Engineering, and to introduce them to the wide range of exciting applications of computation and technology in society. We will explain how Computer Science is not just about programming, but about computational thinking and the study of algorithms. Important terms and concepts in the field will be introduced, as a preview to what will be learned in other courses. We will explain the motivation for various aspects of our majors, including the core course sequence in our curriculum, math requirements, supporting area, co-ops, etc. We will also discuss practical issues that are faced by Software Engineers (abstraction, ethics). In addition, invited speakers will give guest lectures on current topics which will be used to illustrate algorithmic ideas and give students an overview of different areas within Computer Science.

Course Structure:

The course lecture content will be deployed in the form of seminar presentations associated with the stated objectives.

Student Outcomes:

At the completion of this course, students will be able to:

- explain what computational thinking means, and how computation influences many aspects of our technological society.
- explain how computer science is about algorithms, not just programming.
- be familiar with important terms and concepts in the field.
- understand the rationale for the sequence of courses required of our majors.

- understand different aspects of being a software engineer.

Prerequisites: None

Grading:

The grade for the course will be determined as follows:

- Attendance: 100%. There will be no exams and no makeup.
- Attendance will be recorded via a simple Canvas quiz related to the meeting.
- Logistics: We expect to meet all the way leading up to the week before Thanksgiving. This will amount to greater than 20 meetings. You will be graded for 14 attendances thereby affording you some flexibility to pick and choose based on topics and contingencies. Your numerical grade for this component will be based simply on the proportion of classes you attend.
- Final online Canvas quiz on ethics to evaluate course outcomes for accreditation
    - This is different from the class attendance quizzes!
    - Available after the ethics lecture
    - Complete before the last day of semester classes
    - Quiz grade will not matter for your grade, however failing to complete the quiz will result in loss of 3 attended lectures.
- The expected grading scale will be A >= 90% > B >= 80% > C >= 70% > D >= 60% > F.
    - Grade is calculated (*rounded up*) based on 14 attendances. So, for example, an A would require $\lceil 14*9 \rceil = \lceil 12.6 \rceil$ or 13 attendances or more.

Optional Textbooks:

- Understanding the Digital World, Brian W. Kernighan, Princeton University Press, 2017.
- Networked Life, Mung Chiang, Cambridge University Press, 2012.
- Great Ideas in Computer Science, A Gentle Introduction, Alan W. Biermann, MIT Press, 1997.

Attendance Policy: Attendance is mandatory and is the only graded aspect of the course.

Communication: A class web page (listed at the top of this syllabus) will be maintained throughout the semester. Students are responsible for checking the announcements regularly for class updates.

Academic Honesty: The Aggie Honor Code is: “An Aggie does not lie, cheat, or steal or tolerate those who do.” Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For additional information please visit: www.tamu.edu/aggiehonor/

For this class, the interpretation of the code will be as follows: You may only report attendance for yourself. Reporting attendance falsely (e.g., without attending, for any other person, etc.) shall be considered an honor council violation for the reporting student. The default penalty for a first violation is an F in the class according to the University Honor Council.

ADA Statement: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.

Links:

- TAMU CSE Department wiki - information about accounts, labs, web page hosting, VPN, free software, etc.
- Honors for info, email: honors@cse.tamu.edu
- TACS - Texas A&M Computing Society, chapters of ACM and IEEE
- TAGD - TAMU Game Developers organization
- ACC – Aggie Coding Club
- TAMU-UPE - Upsilon Pi Epsilon - International Honors Society for the Computing and Information Disciplines
- TAMU Cybersec – TAMU Cybersecurity Club
- AWICS - Aggie Women in Computer Science

Acknowledgment:

Professors John Keyser, Thomas Ioerger and Scott Schaefer for their foundational efforts in establishing this course for our past students.