CSCE 181 – Introduction to Computing
Spring 2023, Section 599

Location/Time: Online (Zoom), TR 12:45 - 2:00pm Central Time

Class Web Page: https://canvas.tamu.edu/courses/201913

Teaching Staff:

Instructor: Dr. Aakash Tyagi
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Office Hours: By appointment via e-mail

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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. 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, test and verification, ethics). In addition, invited speakers will give guest lectures on current topics which will be used to give students an overview of different areas within the broad field of Computing.

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:

Two take-home online quizzes will be offered on Canvas around mid-late Feb and late-Mar to early-Apr timeframe. These quizzes will be designed to gage basic comprehension of themes/terms/concepts/takeaways presented in the talks.

Each quiz will be worth 50 points. You will have two attempts for each quiz and the best score will be counted.

The grading scale is A >= 85% > B >= 75% > C >= 65% > D >= 55% > F.

In the past semesters, we have used a combination of attendance and quizzes as measure of success. This semester, we are going to take a leap of faith that each talk will have a quorum for attendance. If attendance and participation start to show signs of concern, the instructor reserves the right to reinstitute strict attendance policy and revise the grading policy.

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: Quorum is expected for every talk.

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: Members of the class will make an honest effort to attend the seminar talks and participate. Members of the class will also take the quizzes on their own.

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:

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