Course Objectives: This course introduces ideas and techniques from discrete structures that are widely used in the computing sciences. Topics emphasize techniques of rigorous argumentation and application to the computing disciplines.

Prerequisite: CPSC 1010 or CPSC1110; and MATH1020 or MATH1060

Textbook:


Tentative Outline of Topics:

1. Truth values of basic logical operations, compound propositions, use compound propositions to express English sentences and solve word puzzles.
2. Simple proof techniques involving propositions, Disjunction Normal Form, Propositional functions, universal & existential quantifiers
3. Simple number theory, direct and indirect proofs, simple sets and their operations
4. Functions, inverses and composition of functions, proofs involving functions, simple order algebra, sequences and closed forms
5. Inductions and their use in proving propositions, simple recursive definitions
6. Counting, sums and products, principle of inclusion & exclusion

Tentative Grading (subject to change):

The final grade for the course will be computed based upon the following distribution (tentative):

- Homework + In Class quizzes – 30%
- 2 Tests – 40%
- Comprehensive Final Exam – 30%
Class Policy on submission: You cannot turn in work that you have already turned in for credit in another course.

Grade Appeal:

Any grade challenges regarding exams, quizzes, or exercises must be emailed to the instructor, with detailed justifications, within one week of the date the grades are posted on Canvas. No exceptions.

Attendance

*Attendance is expected, but not required.* We may cover material in an order different from any textbook. You are responsible for any material covered in class. You are responsible for any announcements, assignments or assignment modifications that are announced in class whether you are present or not. This also applies to arriving late to class or leaving early. **We will have unannounced quizzes during class.** No make-ups will be given.

Deadlines

Work is due at the specified deadline. **Late work will not be accepted.** If a homework is only partially completed you should submit what you have by the deadline.

Instructor Late: If the instructor is late for class, students are expected to wait for 15 minutes before they leave.

Cancellation of Class: If classes are cancelled by the university on the day of a scheduled test, we will reschedule the test.

Academic Integrity

As members of the Clemson University Community, we have inherited Thomas Green Clemson's vision of this institution as a "high seminary of learning". Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form. **Read the university academic integrity statement** (along with other important information). Unless otherwise specified in an assignment, you are expected to
work independently on projects, assignments, tests and labs. *If you are in doubt about the type of help you may give or receive on a project: ASK!*

**University Accessibility Statement:**

Clemson University values the diversity of our student body as a strength and a critical component of our dynamic community. Students with disabilities or temporary injuries/conditions may require accommodations due to barriers in the structure of facilities, course design, technology used for curricular purposes, or other campus resources. Students who experience a barrier to full access to this class should let the professor know, and make an appointment to meet with a staff member in Student Accessibility Services as soon as possible. You can make an appointment by calling 864-656-6848, by emailing mailto:studentaccess@lists.clemson.edu, or by visiting Suite 239 in the Academic Success Center building. Appointments are strongly encouraged – drop-ins will be seen if at all possible, but there could be a significant wait due to scheduled appointments. Students who receive Academic Access Letters are strongly encouraged to request, obtain and present these to their professors as early in the semester as possible so that accommodations can be made in a timely manner. It is the student’s responsibility to follow this process each semester. You can access further information here: [https://www.clemson.edu/academics/studentaccess/](https://www.clemson.edu/academics/studentaccess/)

**The Clemson University Title IX (Sexual Harassment) Statement**

Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran’s status, genetic information or protected activity in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. This policy is located at [http://www.clemson.edu/campus-life/campus-services/access/title-ix/](http://www.clemson.edu/campus-life/campus-services/access/title-ix/). Mr. Jerry Knighton is the Clemson University Title IX Coordinator. He also is the Director of Access and Equity. His office is located at 110 Holtzendorff Hall, 864.656.3184 (voice) or 864.656.0899 (TDD).

**Spring 2020 Academic Calendar**

| Jan 6, Mon | Orientation |
| Jan 6, 7 | Late enrollment |
| **Jan 8, Wed** | **Classes begin** |
| Jan 14, | Last day to register or add a class or declare Audit |
| Jan 20, | Martin Luther King Jr. holiday |
| Jan 22, | Last day to drop a class or withdraw from the University without a W grade |
| Jan 29, | Last day to apply for May commencement |

**Feb 28** | Last day for instructors to issue midterm evaluations |
Mar 13   Last day to drop a class or withdraw from the University without final grades
Mar 16 – 20  Spring break

Apr 4,- 11,  Honors and Awards Week
Apr 6, Mon  Registration for fall term begins
Apr 23, 24  Classes meet; exams permitted in labs and one-hour courses only

Apr 27 – May 1  Final Examinations

May 4, Mon  9:00 A.M.--Deadline to submit candidate grades
May 6, Wed  9:00 A.M.--Deadline to submit other grades
May 6, Wed  Candidates for commencement may access grades
May 7, 8     Commencement