

CSC 350-01
SYLLABUS

This class will be offered in “synchronous online” format in Spring 2021. Lectures will be delivered online during class hours on Tuesdays and Thursdays. The instructor will be available during these hours for questions and discussions. The instructor will also be available during selected office hours for questions and discussions.

COURSE NUMBER: CSC 350-01

SEMESTER: Spring 2021

COURSE TITLE: Foundations of Computer Science II.

CREDITS: 3:3

PREREQUISITES: Grade of at least C (2.0) in CSC 250, or permission of instructor.

FOR WHOM PLANNED: This course is a required course for Computer Science majors.

INSTRUCTOR: Dr. Mohammad Faridul Haque Siddiqui (Farid).

OFFICE: Physical: Petty 156, Online: through Zoom.

EMAIL: m_siddiq@uncg.edu

LECTURES: Tues/Thurs 11:00 am - 12:15 pm (Online)

OFFICE HOURS: Tue/Thurs 3:00 pm - 4:00 pm (through Zoom), or by appointment

CATALOG DESCRIPTION: High level concepts in the theoretical foundations of computer science.

STUDENT LEARNING OUTCOMES: Upon successful completion of this course students will be able to

- Define basic terminology relating to logic, discrete probability, languages and automata.
- Practice the application of appropriate mathematical principles used to create logical expressions, languages, and automata.
- Evaluate logical expressions, languages, and automata.

TEACHING METHODS AND ASSIGNMENTS FOR ACHIEVING LEARN-

ING OUTCOMES: Instruction will be performed through online lectures and discussions. Assignments will be given to provide practice with concepts covered in lectures.

EVALUATION AND GRADING:

Evaluation and Grading: Each student activity will contribute to the final grade in the class according to the following percentages.

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|----------------------|-----------|
| 1. Assignments (3): | 40 points |
| 2. Exams / Quiz (3): | 60 points |

RECOMMENDED TEXT:

Discrete Structures, Logic, and Computability, by: James L. Hein. Jones and Bartlett, 4th Edition.

OUTLINE¹:

- Elementary Logic (Chapter 6 of textbook.)
- Predicate Logic (Chapter 7 of textbook.)
- Logic Programming (Section 8.3 of textbook.)
- Selected sections from Chapter 3 of textbook (Section 3.3: Grammars.)
- Selected sections from Chapter 4 of textbook (Section 4.3: Order Relations.)
- Selected sections from Chapter 5 of textbook (Section 5.4: Discrete Probability.)
- * Graph Theory (Chapters 1 and 10 of textbook.)

IMPORTANT NOTE:

ACADEMIC INTEGRITY POLICY: Students are expected to abide by the UNCG Academic Integrity Policy, which is available at <http://sa.uncg.edu/handbook/academicintegrity-policy/>. Any infraction(s) will result in failure of the entire course and a final course grade of F. Students are required to sign the Academic Integrity Pledge on any work they do. The pledge is the statement "I have abided by the UNCG Academic Integrity Policy on this assignment."

ADDITIONAL NOTES:

- Students must have satisfied all prerequisites for this course or have permission from the instructor.
- The grade you will receive in this course is a function of your numerical marks in the assignments, quizzes, tests **AND** the overall performance of all students in the course. The marks will be "normalized" to assess a student's performance. A rough guideline is as follows: 90% to 100%, A; 80% to 89%, B; 70% to 79% C; 60% to 69% D (for undergraduate students) or F (for graduate students); below 60%, F.
- Students should be present for all tests and exams. No make-up tests/exams will be given.
 - I often use email to communicate with you. I will only use your UNCG email addresses. Please make sure to check your messages regularly. If you normally use a different email address, it is your responsibility to forward your UNCG messages to that address.
- You are *encouraged* to seek information in other books or on the web. **BUT** you must cite the source if you use any material from other books or the web (for example, in your homework). Otherwise, it is considered cheating.

¹ Topics marked with * will be covered if time permits.

- Homeworks are due in class.
- A penalty of 20% (of the total homework mark) per day will be levied for late assignments. Late submission of a homework is accepted until it is discussed in class. **You are encouraged to turn in homeworks even if you have lost all of the mark due to penalty.**
- It is a good idea to retain a copy of your works until you receive your final grade for the course.
- **Please back up all your computer work.** • Some topics from the text or references will be designated as “reading assignments”. You are responsible to read these topics on your own, and ask questions during classroom hours or my office hours if there are any parts that need clarification.
- For administrative reasons I may need to make copies of some of your works and exams. Please notify me if you wish no copy of your works and tests to be made.
- **Academic Integrity Policy** will be strictly enforced.
- Smoking is strictly prohibited in classroom. This includes e-cigarettes.
- **Laptop/Cellphone Policy:** Laptops can be both a benefit and a distraction in a classroom. While many students benefit from taking notes using a laptop, or having access to class-related resources during class, other students cannot resist the temptation of checking e-mail, chatting, working on assignments (for this or another class), or even playing games during class time. This class has a strict “no non-class related use” rule for laptops. If you are found violating this policy, then your in-class laptop privileges will be taken away and additional penalty may be levied. Cellphones are a distraction for everyone, and should be turned off during class. If there is a special situation where you need to have your phone on for a particular day, please let the instructor know the situation before class.
- **Disruptive Behavior:** Disruptive behavior is unacceptable in any classroom. Please do not engage in non-class-related conversation, use of electronic devices, or other work not related to the class. Do not start side conversations or debates with others in this class. If you have questions, you should ask the instructor. Do not make noises in class. Note the following (from Student Policy Handbook) <https://sa.uncg.edu/handbook/policies/disruptive-behavior-in-the-classroom/>
 “The instructor may withdraw a student from a course for behavior that is deemed by the instructor to be disruptive to the class.”

- **Attendance Policy:**

- Attendance is a key component in learning. While this course is online, it is still a synchronous class. You must attend during your scheduled class section time.
- Attendance will not be taken in class, and is voluntary; however, all students are responsible for everything done or said in class (this can include changes in assignments, due dates, etc.). The university allows for a limited number of excused absences for religious observances —students who plan to take such an absence should notify the instructor at least two weeks in advance so that accommodations can be made (see the late work policy below).
- It is the student’s responsibility to obtain notes from another student if they miss class. The instructor will not give private instruction for missed lectures nor will the instructor provide personal lecture notes. Get the notes from another student, review the material, and then seek assistance for topics that are not clear.
- Note that there is no intention to make recordings of lectures available. You should plan to attend the lectures in real time.

COVID-19 NOTES:

Most of the following notes are relevant to face-to-face and hybrid classes. Some notes may be relevant to online classes as well.

Approved by the Faculty Senate on July 1, 2020

As UNCG returns to face-to-face course offerings in fall 2020, the campus community must recognize and address concerns about physical and emotional safety. As such, all students, faculty, and staff are required to uphold UNCGs culture of care by actively engaging in behaviors that limit the spread of COVID-19. Such actions include, but are not limited to, the following: Wearing a face covering that covers both nose and mouth Observing social distance in the classroom Engaging in proper hand washing hygiene when possible Self-monitoring for symptoms of COVID-19 Staying home if you are ill Complying with directions from health care providers or public health officials to quarantine or isolate if ill or exposed to someone who is ill. Instructors will have seating charts for their classes. These are important for maintaining appropriate social distance during class and facilitating contact tracing should there be a confirmed case of COVID-19. Students must sit in their assigned seat at every class meeting and must not move furniture. Students should not eat or drink during class time. A limited number of disposable masks will be available in classrooms for students who have forgotten theirs. Face coverings will also be available for purchase in the UNCG Campus Bookstore. Students who do not follow masking and social distancing requirements will be asked to put on a face covering or leave the classroom to retrieve one and only return when they follow these basic requirements to uphold standards of safety and care for the UNCG community. Once students have a face covering, they are permitted to re-enter a class already in progress. Repeated issues may result in conduct action. The course policies regarding attendance and academics remain in effect for partial or full absence from class due to lack of adherence with face covering and social distancing requirements.

For instances where the Office of Accessibility Resources and Services (OARS) has granted accommodations regarding wearing face coverings, students should contact their instructors to develop appropriate alternatives to class participation and/or activities as needed. Instructors or the student may also contact OARS (336.334.5440) who, in consultation with Student Health Services, will review requests for accommodations.

Approved by the Faculty Senate Executive Committee on July 30, 2020

Health and well-being impact learning and academic success. Throughout your time in the university, you may experience a range of concerns that can cause barriers to your academic success. These might include illnesses, strained relationships, anxiety, high levels of stress, alcohol or drug problems, feeling down, or loss of motivation. Student Health Services and The Counseling Center can help with these or other issues you may experience. You can learn about the free, confidential mental health services available on campus by calling 336-334-5874 , visiting the website at <https://shs.uncg.edu/> or visiting the Anna M. Gove Student Health Center at 107 Gray Drive. For undergraduate or graduate students in recovery from alcohol and other drug addiction, The Spartan Recovery Program (SRP) offers recovery support services. You can learn more about recovery and recovery support services by visiting <https://shs.uncg.edu/srp> or reaching out to recovery@uncg.edu

COVID-19 Spartan Shield Video

UNCG Chancellor Frank Gilliam has challenged us to create a Culture of Care at UNCG where we all wear face coverings and social distance, less to protect ourselves but rather more to protect everyone around us. It shows that you care about the well being of everyone around you. We have created this video featuring your student body presidents to better explain how and why this is so important. Please watch this video before the first day of classes.

<https://youtu.be/Mb58551qxEk>