**Discrete Structures for Computer Science**  
**CSCI 3333**  
**Fall 2020**

**INSTRUCTOR:** Dr. Jeremy Becnel  
Department: Computer Science  
Office: STEM 312 Q  
Email: becneljj@sfasu.edu  
Chat / Video Conference: Microsoft Teams  
Phone: 936 468 1468

**MS TEAMS**  
Communication for the course, sharing of course materials (e.g. notes, syllabus, etc.), and other items will be conducted through Microsoft Teams. This is one of many “free” Microsoft applications that the university provides. **Team Code:** lz6k110

**OFFICE HOURS:** Remote via Microsoft Teams  
MW 10:30 - 12:30 and TR 1:45 – 3:45  
Other times by appointment.

**CLASS INFO:**  
Credit Hours: 3  
Meeting Time: MW 2:30-3:45 (001) TR 12:30 – 1:45 (002)  
Location: Remote via Zoom / STEM 318

**PREREQUISITES:**  
Have a C or better in CSCI 2302; MATH 1314 or 2412 or 1324 or 2313

**CATALOG DESCRIPTION:**  
Mathematical structures for describing data, algorithms, and computing machines. Theory and application of sets, relations, functions, combinatorics, matrices, graphs, and algebraic structures which are pertinent to computer science.

**STUDENT LEARNING OUTCOMES:**  
Upon successful completion of the course, students should be able to:
1. Use formal notation for prepositional and predicate logic.  
2. Construct formal proofs in prepositional and predicate logic and use such proofs to determine the validity of English language arguments.  
3. Prove conjectures using the techniques of direct proof, proof by contraposition, proof by contradiction, and proof by induction.  
4. Prove the correctness of programs that contain looping constructs.  
5. Demonstrate an understanding of recursive definitions and to write recursive definitions for certain sequences and collections of objects.  
6. Describe how recursive algorithms execute.  
7. Use set notation and set operations to prove/disprove set identities.  
8. Use the Principle of Inclusion and Exclusion to find the number of elements in the union of sets.  
9. Solve permutation and combination problems for a set of n distinct objects.  
10. Use relations and functions and apply these concepts to ordering problems.  
11. Use graphs, directed graphs, and trees as representation tools in a wide variety of contexts.

**OFFICIAL COURSE SYLLABUS:** For additional detail including course description, purpose of course, student learning objectives, credit hour statement, and content, see the official course syllabus here:  
[http://sfasu.edu/docs/computer-science/undergraduate-course-CSCI3333.pdf](http://sfasu.edu/docs/computer-science/undergraduate-course-CSCI3333.pdf)


**REQUIRED SOFTWARE AND HARDWARE:**  
Microsoft Teams (Web / Android / Apple / PC)  
Scanner or Microsoft Office Lens (Android / Apple): Web Camera

---

Syllabus: CSCI 3333 - Becnel
GRADING POLICY:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1:</td>
<td>20%</td>
</tr>
<tr>
<td>Exam 2:</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam:</td>
<td>30%</td>
</tr>
<tr>
<td>Quiz:</td>
<td>20%</td>
</tr>
<tr>
<td>Webwork Average:</td>
<td>10%</td>
</tr>
</tbody>
</table>

QUIZZES: Periodic quizzes will be given. Check the semester schedule. Quizzes will be open notebook. Many problems on quizzes will be similar to suggested homework problems (or the exact homework problem). There will be no make-up quizzes. Quizzes missed may be replaced with an exam grade if a valid excuse is presented. All quiz dates are on the course schedule; however, please consider the dates tentative. Most problems will be graded on the scale 0-5 using the rubric that can be found in our Microsoft Teams folder. Quiz grade is computed as a percentage of points earned out of total possible points on all quizzes.

EXAMINATIONS: Exams make up 70% of the course grade – short answer, problems, programs – all exams are comprehensive. There will be two in-class exams and a final exam. Dates are on the course schedule; however, please consider the dates tentative.

Check the final exam time. If the final exam time is a problem, you will need to drop this course: SFASU Final Exam Schedule

ASSIGNMENTS: Only a minimum number of textbook problems are assigned (see class schedule). You should do several more to be successful. Please note that any reasonable problem in the book may be the basis for questions on quizzes and exams since they cover material presented or discussed in class or address background information you should know. Your quiz average can be found by averaging your percentage grade on each quiz.

WEBWORK: We use Webwork (https://webwork.sfasu.edu/webwork2/CSCI-3333-Fall2020) to cover basic concepts from the class. There will be no late assignments allowed. Webwork Average will be calculated by \[ \frac{\text{Correct Problems}}{\text{Total Problems}} + 10 \times 100\% \].

To login, your username is your mySFA username. For example, mine is becneljj. The initial password is your student id with no spaces or hypens, e.g. 01234567

ATTENDANCE: Attendance and constructive class participation are expected.

PROGRAM LEARNING OUTCOMES: Program learning outcomes define the knowledge, skills, and abilities students are expected to demonstrate upon completion of an academic program. These learning outcomes are regularly assessed to determine student learning and to evaluate overall program effectiveness.

- Students majoring in the Department of Computer Science may access program learning outcomes at http://www.sfasu.edu/academics/colleges/sciences-math/computer-science/about/accreditations
Software Policy: Disciplinary action will be taken against individuals who perform unauthorized duplication of software or who are involved in the unauthorized use of duplicated software. Such action may make it impossible for you to successfully complete this course.

Computer Laboratory Usage: Students utilizing equipment in university computing laboratories are expected to read and abide by all posted policies for the laboratories. Please note that no children and no pets are permitted in university computing laboratories.

Drop Policy (Univ.): The official university add/drop policy is located at http://www.sfasu.edu/policies/course-add-drop_6.10.pdf. If you have questions concerning registration, add/drop, or the withdrawal process, contact the Registrar at (936) 468-2501 or E-mail: REGISTRAR@SFASU.EDU. The Registrar is located on the 2nd floor of the Rusk building.

Special Accommodation Requests: To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services promptly may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

Students with special accommodation requests have the responsibility to immediately initiate a meeting with the instructor to discuss how the special accommodations will be provided. Students who are aware of these special needs at the beginning of the semester must inform the instructor in person before the twelfth class day about any class activity, which will require special accommodations.

Computer Account Policy: All assignments that require the use of the University Computer must be done under the computer account that is assigned to you in this class. You should NOT do other class assignments in this account, and you should NOT do assignments from this class in other accounts. Failure to abide by the above statements will mean that you will receive a grade of F in this course.

Academic Integrity: Academic integrity is the responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one’s own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one’s paper without giving the author due credit. All instances of academic dishonesty will be reported to the Office of the Dean of the student’s major. This report shall be made part of the student’s record and shall remain on file with the Dean’s office for at least four years. Instances of academic dishonesty may also be reported to the University Committee on Academic Integrity. Please read the complete policy at http://www.sfasu.edu/policies/4.1-student-academic-dishonesty.pdf. A student who wishes to appeal decisions related to academic integrity follows procedures outlined in University policy 6.3 (http://www.sfasu.edu/policies/academic-appeals-by-students-6.3.pdf).

If in my judgment an instance of academic dishonesty on an examination has occurred, a grade of zero will be assigned as the examination grade and a minimum of one (1) letter grade will be lost in the course grade. Possession of a cell phone or other electronic communication device during an exam will result in an examination grade of zero. A course grade of F may be assigned depending on the situation. A student found cheating on an examination may not drop the course. If in my judgment a student is found cheating on any part of a homework assignment or quiz, the student will receive negative points equal to the value of the entire homework/quiz. A negative grade will not be replaced by any possible bonus assignment. I consider the person who did the work (homework, quiz, test) and the person copying the work as both cheating. A recurrence of this by any individual will result in a grade of F in the course. DO YOUR OWN WORK!!!!!! Do NOT show your code to other students!!

Withheld Grades Semester Grades Policy (A-54)
Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work
within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

**Acceptable Student Behavior**
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic, or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

**COVID-19 Mask Policy:** Masks (cloth face coverings) must be worn over the nose and mouth at all times in this class and appropriate physical distancing must be observed. Students not wearing a mask and/or not observing appropriate physical distancing will be asked to leave the class. All incidents of not wearing a mask and/or not observing appropriate physical distancing will be reported to the Office of Student Rights and Responsibilities. Students who are reported for multiple infractions of not wearing a mask and/or not observing appropriate physical distancing may be subject to disciplinary actions.
