

CS 208 Discrete Mathematics Michael R. Wiemann

Mission Statement: The mission of Park University, an entrepreneurial institution of learning, is to provide access to academic excellence, which will prepare learners to think critically, communicate effectively and engage in lifelong learning while serving a global community.

Vision Statement: Park University will be a renowned international leader in providing innovative educational opportunities for learners within the global society.

Course	CS 208 Discrete Mathematics
Semester	Portfolio
Faculty	Michael R. Wiemann
Degrees/Certificates	MS- Applied Mathematics: Central Missouri State University BS- Actuarial Science & Mathematics: Central Missouri State University
Title	Adjunct Faculty
Daytime Phone	(816) 355-2024
E-Mail	Michael.Wiemann@pirate.park.edu
Class Days	mwiemann@sbcglobal.net
Class Time	TBA
Prerequisites	Prerequisite: MA 131 or higher-level course
Credit Hours	3

Textbook:

[Discrete Mathematics and Its Applications, Sixth Edition, Rosen \(ISBN: 0-07-288008-2\)](#)

Textbooks can be purchased through the [MBS bookstore](#)

Textbooks can be purchased through the [Parkville Bookstore](#)

Additional Resources:

[McAfee Memorial Library](#) - Online information, links, electronic databases and the Online catalog. Contact the library for further assistance [via email](#) or at 800-270-4347.

[Career Counseling](#) - The Career Development Center (CDC) provides services for all stages of career development. The mission of the CDC is to provide the career planning tools to ensure a lifetime of career success.

[Park Helpdesk](#) - If you have forgotten your OPEN ID or Password, or need assistance with your PirateMail account, please email helpdesk@park.edu or call 800-927-3024

[Resources for Current Students](#) - A great place to look for all kinds of information
<http://www.park.edu/Current/>.

Course Description:

(MA 208) This course introduces the student to selected finite systems pertinent to the study of computer science. Course topics will include combinatorial problem solving, logic, Boolean algebra, combinatorial circuits, sets, relations, functions, proofs, mathematical induction, recurrence relations, graphs, trees, and counting techniques. PREREQUISITE: Any math course > [MA 131](#). 3:0:3

Learning Outcomes:

Core Learning Outcomes

1. Explain and solve problems involving logics, Boolean algebra, combinatorial circuits, sets, relations, and functions, proofs, mathematical induction, and recurrence relations.
2. Explain and solve problems involving graphs, paths, circuits, graph coloring, directed graphs, shortest path algorithms
3. Explain and solve problems involving trees, spanning trees, rooted trees, binary trees, and tree traversal algorithms.
4. Explain and solve problems involving counting techniques such as permutations, combinations, binomial theorem, and probability.

Core Assessment:

For this course, the assessment is based on a final exam. There will be 4 questions in each of the 8 categories, i.e. Synthesis, Analysis,... etc. Thus, there will be 32 questions total in the final exam. Furthermore, all 4 questions for each category should cover all 4 learning outcomes.

[Link to Class Rubric](#)

Class Assessment:

Two Exams @ 100 points each:	200 points
Quizzes (See below)	200 points
Final Exam	100 points
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Total	400 points

Grading:

Grades for CS 208 will be based upon taking the total points earned divided by the total points possible. Your percentage will result in the following letter grade:

A: 89.5% - 100.0%
B: 79.5% - 89.4%
C: 69.5% - 79.4%
D: 59.5% - 69.4%
F: 0.0% - 59.4%

Quizzes will be calculated by taking the total points earned on quizzes divided by the total points possible in quizzes and multiplying by 200. Any decimal part of an integer will be rounded to the nearest whole number (i.e. 193.5 will round to 194).

Extra credit, if offered, will be at the discretion of Mr. Wiemann.

All work must be shown to earn full credit on problems worked!

The final exam for this course is comprehensive and required to be taken.

The only dumb question is the one that is not asked. If you have an issue about the course, I would encourage you to use the methods of communication that I have (i.e. E-mail, voice mail, before or after class).

The schedule for this class can be found under the **CS208 Schedule** page on the class website. Due to the dynamic nature of the course, the most up to date schedule can be found on the web site.

Late Submission of Course Materials:

Mr. Wiemann does **NOT** accept late homework, labs or quizzes.

Mr. Wiemann does **NOT** allow makeup exams. It is the student's responsibility to take the exam on or before the scheduled date. If the score on your final exam is greater than the score earned on one of your class exams, I will replace your lowest exam score (not including quizzes) with the score earned on the final exam. For this reason, it becomes an integral part of the student's responsibility to be there on an exam day.

Classroom Rules of Conduct:

Although healthy debate is encouraged, students must respect others opinions by allowing everyone to speak without interruption. Students are encouraged to ask questions and expected to participate in discussions and group exercises. Class breaks will be taken as directed by the instructor, however, students may excuse themselves at anytime between for legitimate purposes such as using the restroom.

Course Topic/Dates/Assignments:

Week Number	Date	Concepts Covered	Components Due All Quizzes Due @ Midnight of Date Listed
1	6/6	Syllabus Chapter 1- Foundation of Logic and Proofs	None
2	6/13	Chapter 2- Basic Structures	Quiz 1 (Chapter 1)- 6/15
3	6/20	Review for Exam One Chapter 4- Induction and Recursion	Quiz 2 (Chapter 1)- 6/22
4	6/27	Exam One- 6/27 Chapter 4- Induction and Recursion (continued)	Quiz 3 (Chapter 1)- 6/29
5	7/4	Chapter 5- Counting Principles	Quiz 4 (Chapter 1)- 7/6
6	7/11	Chapter 9- Graphs	Quiz 5 (Chapter 1)- 7/13
7	7/18	Exam Two- 7/18 Chapter 10 - Trees	Quiz 6 (Chapter 1)- 7/20
8	7/25	Final Exam	Quiz 7 (Chapter 1)- 7/24

Academic Honesty:

Academic integrity is the foundation of the academic community. Because each student has the primary responsibility for being academically honest, students are advised to read and understand all sections of this policy relating to standards of conduct and academic life. [Park University 2006-2007 Undergraduate Catalog](#) Page 87-89

Plagiarism:

Plagiarism involves the use of quotations without quotation marks, the use of quotations without indication of the source, the use of another's idea without acknowledging the source, the submission of a paper, laboratory report, project, or class assignment (any portion of such) prepared by another person, or incorrect paraphrasing. [Park University 2006-2007 Undergraduate Catalog](#) Page 87

Attendance Policy:

Instructors are required to maintain attendance records and to report absences via the online attendance reporting system.

1. The instructor may excuse absences for valid reasons, but missed work must be made up within the semester/term of enrollment.
2. Work missed through unexcused absences must also be made up within the semester/term of enrollment, but unexcused absences may carry further penalties.
3. In the event of two consecutive weeks of unexcused absences in a semester/term of enrollment, the student will be administratively withdrawn, resulting in a grade of "W".
4. A "Contract for Incomplete" will not be issued to a student who has unexcused or excessive absences recorded for a course.
5. Students receiving Military Tuition Assistance or Veterans Administration educational benefits must not exceed three unexcused absences in the semester/term of enrollment. Excessive absences will be reported to the appropriate agency and may result in a monetary penalty to the student.
6. Report of a "F" grade (attendance or academic) resulting from excessive absence for those students who are receiving financial assistance from agencies not mentioned in item 5 above will be reported to the appropriate agency.

Park University 2006-2007 Undergraduate Catalog Page 89-90

Disability Guidelines:

Park University is committed to meeting the needs of all students that meet the criteria for special assistance. These guidelines are designed to supply directions to students concerning the information necessary to accomplish this goal. It is Park University's policy to comply fully with federal and state law, including Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, regarding students with disabilities. In the case of any inconsistency between these guidelines and federal and/or state law, the provisions of the law will apply. Additional information concerning Park University's policies and procedures related to disability can be found on the Park University web page:

<http://www.park.edu/disability>.

Rubric

Competency	Exceeds Expectation (3)	Meets Expectation (2)	Does Not Meet Expectation (1)	No Evidence (0)
Synthesis Outcomes 1, 2, 3, 4	Demonstrate mastery of 4 questions	Demonstrate mastery of 3 questions	Demonstrate mastery of 2 questions	Demonstrate mastery of 0-1 questions
Analysis Outcomes 1, 2, 3, 4	Demonstrate mastery of 4 questions	Demonstrate mastery of 3 questions	Demonstrate mastery of 2 questions	Demonstrate mastery of 0-1 questions
Evaluation Outcomes 1, 2, 3, 4	Demonstrate mastery of 4 questions	Demonstrate mastery of 3 questions	Demonstrate mastery of 2 questions	Demonstrate mastery of 0-1 questions

Terminology				
Outcomes 1,2, 3, 4	Demonstrate mastery of 4 questions	Demonstrate mastery of 3 questions	Demonstrate mastery of 2 questions	Demonstrate mastery of 0-1 questions
Concepts				
Outcomes 1, 2, 3, 4	Demonstrate mastery of 4 questions	Demonstrate mastery of 3 questions	Demonstrate mastery of 2 questions	Demonstrate mastery of 0-1 questions
Application				
Outcomes 1, 2, 3, 4	Demonstrate mastery of 4 questions	Demonstrate mastery of 3 questions	Demonstrate mastery of 2 questions	Demonstrate mastery of 0-1 questions
Whole Artifact				
Outcomes 1,2, 3, 4	Demonstrate mastery of 4 questions	Demonstrate mastery of 3 questions	Demonstrate mastery of 2 questions	Demonstrate mastery of 0-1 questions
Component				
Outcomes 1, 2, 3, 4	Demonstrate mastery of 4 questions	Demonstrate mastery of 3 questions	Demonstrate mastery of 2 questions	Demonstrate mastery of 0-1 questions