

Oakland University
Department of Mathematics and Statistics
Student Information Sheet and Syllabus

COURSE: APM 1663, Mathematics for Information Technology, 4 credits

SEMESTER: Winter 2018

INSTRUCTOR: Mike Gosling
office: 393 MSC
office hours: before class, after class, and by appointment
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PREREQUISITES: MTH 1222 with at least a 2.0, or MTH 1554. Prerequisites are strictly enforced, so that we can discuss the material in this course with the mathematical sophistication that it requires. If you do not meet the prerequisite, you will not be permitted to remain in the course.

TEXTS: *Discrete Mathematics: Mathematical Reasoning and Proof with Puzzles, Patterns, and Games*, by Ensley and Crawley, published by John Wiley & Sons, Inc. (2006).

COURSE CATALOG DESCRIPTION: Systems of linear equations, matrix algebra, and linear transformations. Elementary combinatorics, recursion and induction, sets, and relations. Enrollment is limited to students in the Bachelor of Science in Information Technology program or with permission of the department. APM 1663 cannot be used to replace APM 2663 or MTH 2775. Satisfies the university general education requirement in the knowledge applications integration area.

TESTS: There will be three tests (each worth 20% of the final grade), with the first one on February 2, the second one on March 7, and the third one on April 4. These tests, as well as the final exam (see below), are closed book tests.

HOMEWORK: Homework from the textbook will be assigned regularly. You must do it conscientiously, but it is not collected or graded. We will go over some of these problems in class.

PROBLEM SETS: There will be three problem sets (all together, worth 10% of the final grade). Each will be assigned, discussed, and due as stated in the following schedule.

FINAL EXAM: The final examination will be comprehensive. It will be given on Thursday, April 19, 3:30-6:30 (worth 30% of the final grade).

EMERGENCY CLOSING: If the University is closed at the time of a scheduled test (for example, because of snow), it will be given during the next class period when the University reopens.

GRADING POLICY: There is no fixed grading scale for this course; a conversion formula from your percentage score to Oakland University grades will be determined at the end of the course. However, the following “standard scale” shows the lowest possible grade that a given percentage score will earn (the grade may be higher than this):
95%→4.0, 80%→3.0, 65%→2.0, 50%→1.0.

MAKE-UP POLICY: No make-up tests will be given. If you miss a test and have a valid excuse, your grade for the missed test will be based on the final exam; otherwise the missed test will be counted as a 0.

ACADEMIC HONESTY: Cheating is a serious academic crime. Oakland University policy requires that all suspected instances of cheating be reported to the Academic Conduct Committee for adjudication. Anyone found guilty of cheating in this course will receive a course grade of 0.0, in addition to any penalty assigned by the Academic Conduct Committee. Handing in written work that has essentially been copied from someone else is cheating. Receiving help from someone else or from unauthorized written material during a test or exam is also cheating, as is using a calculator as an electronic “crib sheet”.

SUCCEEDING IN THE COURSE: The Department of Mathematics and Statistics is committed to achieving the goal of an academically sound mathematical sciences curriculum in which most conscientious Oakland University students can expect to be successful. You are encouraged to take advantage of the resources available to you: each other (forming study groups), your instructor’s office hours, the Academic Skills Center, the library, the World Wide Web, and your friends and family.

IMPORTANT DATES:

- January 17: Last day for “no record” drops
- March 14: Last day for official withdrawal (W grade)
- April 19: Final Exam 3:30 p.m. to 6:30 p.m.

APM 1663 Schedule* – Winter 2018

<u>Day</u>	<u>Date</u>	<u>Sections/Material Covered</u>
W	1-3	Section 1.1
F	1-5	Section 1.2
M	1-8	Section 1.3
W	1-10	Section 1.5, Problem Set 1 Assigned
F	1-12	Section 1.6
M	1-15	MLK, Jr. Day (No class meeting)
W	1-17	Section 2.1
F	1-19	Section 2.2
M	1-22	Section 2.3
W	1-24	Problem Set 1 Due, Parts of Sections 2.4 & 2.5
F	1-26	Section 3.1
M	1-29	Section 3.2
W	1-31	Review
F	2-2	Test 1
M	2-5	Section 4.1
W	2-7	Section 4.2
F	2-9	Section 4.4, Section 4.5
M	2-12	Section 4.5, Section 4.6
W	2-14	Section 2.7, Problem Set 2 Assigned
F	2-16	Section 2.7
M	2-26	Section 2.7
W	2-28	Section 2.7
F	3-2	Euclidean Algorithm
M	3-5	Problem Set 2 Due, Review
W	3-7	Test 2
F	3-9	Section 5.1
M	3-12	Section 5.2
W	3-14	Section 5.3
F	3-16	Section 5.3
M	3-19	Chapter B, Additional material, Problem Set 3 Assigned
W	3-21	Chapter B, Additional material
F	3-23	Chapter B, Additional material
M	3-26	Additional material
W	3-28	Additional material
F	3-30	Additional material
M	4-2	Problem Set 3 Due, Review
W	4-4	Test 3
F	4-6	Parts of Chapter 7
M	4-9	Parts of Chapter 7
W	4-11	Parts of Chapter 7
F	4-13	Review
M	4-16	Review
Thursday	4-19	Final Exam (3:30-6:30)

*subject to change