Math 115 – Sections 00, 01-07

Coordinator: Dr. Demitri Plessas, E-mail: demitri.plessas@umontana.edu, Office: MA 004E, Phone: 243-4103 or 243-5311
(Office hours on the course webpage.)

Catalog Description
Systems of linear equations and matrix algebra. Introduction to probability with emphasis on models and probabilistic reasoning. Examples of applications of material in many fields.

Prerequisites
M 090 (MAT 005D) with a grade of B- or better, M 095 (MAT 100D), or appropriate placement score.

Learning Goals
1. To master the basic concepts of lines, linear systems, matrices and linear programming (graphical method only).
2. To understand basic probability concepts: probability models (Venn diagrams, two-way tables), sample spaces with equally likely outcomes (counting), conditional probability (tree diagrams), Bayes’ Theorem, binomial probabilities, probability distributions.
3. To understand the rudiments of statistics: measures of center and spread, the normal distribution and the normal approximation to the binomial distribution.
4. To learn how to use the above concepts to solve application problems (this includes to learn to precisely formulate a problem, and to interpret solutions).

Webpage: http://www.math.umt.edu/plessas/M115
Homework assignments and other information pertinent to this course (such as office hours) will be posted at this webpage. This webpage will be updated frequently. This site will also contain lecture slides and handouts. It is password protected with the username and password given in class.

Format
Lectures MWF 9:10-10:00am (M 115, Section 00, CRN: 31301) in GBB 106.
Recitation (linked) sections on Thursdays:

<table>
<thead>
<tr>
<th>Section</th>
<th>CRN</th>
<th>Time</th>
<th>Room</th>
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</thead>
<tbody>
<tr>
<td>01</td>
<td>30384</td>
<td>8:10-9:00am</td>
<td>MA 108</td>
</tr>
<tr>
<td>02</td>
<td>30385</td>
<td>9:10-10:00am</td>
<td>MA 108</td>
</tr>
<tr>
<td>03</td>
<td>31708</td>
<td>10:10-11:00am</td>
<td>MA 108</td>
</tr>
<tr>
<td>04</td>
<td>30386</td>
<td>11:10-12:00pm</td>
<td>MA 108</td>
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<thead>
<tr>
<th>Section</th>
<th>CRN</th>
<th>Time</th>
<th>Room</th>
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<tbody>
<tr>
<td>05</td>
<td>30043</td>
<td>12:10-1:00pm</td>
<td>MA 108</td>
</tr>
<tr>
<td>06</td>
<td>30050</td>
<td>1:10-2:00pm</td>
<td>MA 108</td>
</tr>
<tr>
<td>07</td>
<td>35976</td>
<td>2:10-3:00pm</td>
<td>MA 108</td>
</tr>
</tbody>
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Textbook
Tan, Finite Mathematics, 10th custom ed. for UM, bundled with WebAssign access code.

Schedule
We will cover chapters 1-3 and 6-9 from the textbook. See the course webpage for an approximate schedule.

Calculator
A graphing calculator is required. Classroom demonstrations will be done with a TI-83 plus. A graphing calculator with symbolic capability, such as TI-89, TI-92, or anything CAS, will not be allowed on quizzes and tests.

Study Advice
Read through the material to be covered in the lecture before coming to class. This will be very helpful for taking notes in class and you will get more out of the lecture. The course will move rapidly. Daily reading in the textbook with paper and pencil in hand to verify the calculations (math books are not read as novels!) and doing all assigned problems will go a long way toward success in this course. You should plan to spend 2 hours outside of class on M 115 for each hour in class (and more if you have missed a class!).

WebAssign
You are required to have a WebAssign account in this course. We will be using the online supplement to the textbook in WebAssign. Homework assignments will be given through WebAssign. These assignments are to be completed online, and are graded. If you already have a WebAssign account, contact me for instructions to use that account in this course.

To access WebAssign, contact the instructor.

i>clicker
We will be using the i>clicker response system, and you will be graded on your in-class participation. In order to receive credit for your responses, you need to register your clicker remote at http://www.iclicker.com/registration. You must have come to class at least once and voted on at least one question in order to complete registration properly. You should register as soon as possible.

Tutoring
Free tutoring is available at the tutorial center at Math@Mansfield, located in the Mansfield Library Main Floor next to the Copy Center. Hours will be posted to the website once they are announced.
**Grading**

*Homework.* Homework assignments will be given regularly. Most of these assignments will be given and graded through WebAssign.

*Quizzes.* Regular quizzes will be given to help you keep on top of the material. Consult the class webpage for announcements of these quizzes.

Three of the lowest quiz scores will be dropped; there will be no make-ups for missed quizzes, regardless of the reason (e.g. sickness, sports, family emergency, etc): a missed quiz will be among those dropped.

*Class Participation.* Scoring requires attendance; there will be no make-ups for this.

*Tests.* There will be three tests scheduled as follows: Test 1 on Friday, March 1. Test 2 on Friday, March 29. Test 3 on Friday, May 3. There will be make-ups for missed tests *only* if scheduled before the test, or under serious extenuating circumstances.

*Final Exam.* There will be a cumulative Final Exam on Friday, May 17th, 10:10-12:10pm. Early finals will not be given unless it is an unavoidable circumstance outside of your control.

*Grade.* Your course grade will be based on 3 Tests (100 points each), the Final Exam (200 points), Homework (100 points), and Quizzes and Class Participation (150 points).

When graded work is returned, there is one week from the date of the return for contesting the grading. After that period the grade will be accepted as final.

Letter grades will correspond to the following percentages:

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<tr>
<th>Percentage</th>
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<tbody>
<tr>
<td>above 92</td>
<td>A</td>
<td>87-89</td>
<td>B+</td>
<td>75-79</td>
<td>C+</td>
<td>62-64</td>
<td>D+</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
<td>83-86</td>
<td>B</td>
<td>70-74</td>
<td>C</td>
<td>58-61</td>
<td>D</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
<td>65-69</td>
<td>C-</td>
<td>55-57</td>
<td>D-</td>
<td>above 55</td>
<td>CR</td>
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<tr>
<td>below 55</td>
<td>F</td>
<td>below 55</td>
<td>CR</td>
<td>below 55</td>
<td>F</td>
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If you are taking this course as a general education requirement, you must take it for a traditional letter grade (not CR/NCR). A grade of “D-” is considered passing and will earn you credit for this course, BUT it will NOT fulfill your general education requirement and you will have to re-take the class. A grade of C- or better is needed to fulfill the math literacy requirement.

*Incomplete Grades.* To be eligible for an incomplete (grade “I”) a student must have been in attendance and *passing* the course up to 3 weeks before the semester ends, and be unable to complete the course due to extenuating circumstances, which usually means serious illness or death in the family. Incompletes are not given under any other circumstances and are always given at the discretion of the course coordinator. See the 2012-2013 catalog for further information.

**Add/Drop Policy**

The last day to add by CYBERBEAR is Tuesday, February 5 (you can still add with paper forms), and the last day to drop by CYBERBEAR is Friday, February 15. The last day to change sections and to change grading options with the paper form (other than audit) is Monday, April 8. This is also the last day to drop. Until April 8, drop slips will be signed with no questions asked: the secretaries in the Math Office (room MA 105) can sign these. All changes after this deadline must be done by Petition to Drop/Add After Deadline and approved by the lecturer, your advisor, and the appropriate Dean. The last day for this type of drop petitions is Friday, May 10. Approval requires genuine extenuating circumstances, such as:

- Missing a substantial number of class days due to illness, accident or family emergency.
- A change in work schedule that makes it impossible to attend class or devote adequate time to the course.
- Registration in the course by error and never attending class.

Reasons that are not satisfactory include forgetting to turn in a drop slip and protecting your grade point average.

**DSS**

Students with disabilities are welcome to discuss accommodations with me. Disability Services for Students will assist in the accommodation process. For more information, visit their website at http://life.umt.edu/dss. Please note that appropriate forms need to be submitted in a timely fashion.

**Academic Honesty**

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University.

**Student Conduct Code**

All students need to be familiar with the Student Conduct Code, which is available for review online (the easiest way to find it is to search for “Student Conduct Code” via the “A to Z Index” link on top of the UM home page.)

**Important Dates**

<table>
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<tr>
<th>Jan 28 (Mon): Classes Begin</th>
<th>Apr 8 (Mon): Last day to add/drop by Paper Form</th>
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<tr>
<td>Feb 15 (Fri): Last day to drop on Cyberbear</td>
<td>May 10 (Fri): Last Regular Class Day</td>
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<td>Feb 18 (Mon): President’s Day Holiday</td>
<td>May 10 (Fri): Last day to add/drop by Petition</td>
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<tr>
<td>Apr 1-5 (Mon-Fri): Spring Break</td>
<td>May 17 (Fri): Final Exam - 10:10-12:10pm</td>
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