MAT 142
College Mathematics
SLN 12253
Syllabus

Note: This document is static, but the policies are not. I may change the syllabus as needed. Changes to the syllabus are announced in class or on the course web page.

Textbook: Mathematics, A Practical Odyssey, 5th ed. by Johnson/Mowry
Web address: http://mathpost.asu.edu/~dsmith/
Office hours: to be determined

Purpose: This class is intended for students whose majors do not require College Algebra (MAT 117). It is designed to satisfy the mathematics requirement for these students, and is not designed as a prerequisite for higher mathematics courses. Students should consult their advisors to verify that this class is accepted for credit. MAT 142 is a terminal mathematics course for students who are in, or plan to be in, nontechnical majors. Individual colleges determine whether MAT 142 is sufficient.

Topics we might cover (one per week):

1. mathematical logic
2. sets
3. counting
4. probability
5. probability (continued)
6. statistics
7. voting and manipulation
8. geometry
9. cartography
10. linear optimization
11. finance
12. exponential and logarithmic functions
13. historical computing
14. physics
15. the derivative

The content and order of the list may change according to student interest or other considerations.

**Course grades:**

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 to 100%</td>
<td>A</td>
</tr>
<tr>
<td>80 to 89%</td>
<td>B</td>
</tr>
<tr>
<td>70 to 79%</td>
<td>C</td>
</tr>
<tr>
<td>60 to 69%</td>
<td>D</td>
</tr>
</tbody>
</table>

**Grade composition:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>1/4</td>
</tr>
<tr>
<td>Test 2</td>
<td>1/4</td>
</tr>
<tr>
<td>Final exam</td>
<td>1/4</td>
</tr>
<tr>
<td>Homework/ quizzes</td>
<td>1/4</td>
</tr>
</tbody>
</table>

**Exams:** There are two midterm exams and one final exam. They are not comprehensive. Midterm exams are given in the mathematics testing center (PSA 21), and the final exam is given in the classroom during finals week. To be admitted to the testing center, bring your ASU Sun Card. You have unlimited time to take the exams, subject to testing center hours. However, time is limited to 110 minutes on the final exam. For more information on the testing center see:

[http://math.asu.edu/fym/tstcenter.html](http://math.asu.edu/fym/tstcenter.html)

Makeup exams are not allowed without prior approval from the instructor.

**Attendance and quizzes:** A key to success in any mathematics course is regular attendance. It is the student’s responsibility to be aware of any announcements made in class regarding course policies or assignments. Quizzes are taken in class with a partner. You may consult class notes which you have written with your own hand.

**Homework:** Homework is assigned every Wednesday, collected one week later, and returned five days after collection. Much homework consists of solving problems from the textbook. There may be projects or other assignments. I flush the homework queue promptly and reliably, and I do not accept late submissions. You are welcome to show me your work after the deadline, but points will not be awarded.
Partial credit: For tests and other assignments, full credit is awarded only when responses are correct and satisfactory. In particular, the solutions to many mathematical problems require not just a numeric answer, but a demonstration of the steps used to arrive at that answer. Partial credit may be awarded when a response is partly right, but there is no guarantee of partial credit when the supporting steps are missing or invalid, even if the answer given at the end is correct. Partial credit depends on valid steps in a reasonable direction. If you are unsure of the validity of your work, you are encouraged to show it to me or to a tutor before submitting it. This is why homework is assigned and collected on Wednesdays. Ideally you try each homework problem by Monday and ask questions in Monday’s lecture. If you are unable to solve a problem, you might earn partial credit by providing what intermediate results you can.

Reading: Reading assignments are given at the end of class. Read the applicable sections before the next class period.

Calculators: Calculators are permitted. Many students find graphing calculators helpful. Some models popular at ASU are the TI-83 Plus and the Casio CFX-9850GB Plus. The preface of our textbook suggests that these models are especially compatible with the text; see for example the note on “Fractions on a Graphing Calculator” between sections 3.3 and 3.4. Calculators with QWERTY keyboards and those that do symbolic algebra, such as the Casio FX2 and 9970Gs, are prohibited during tests. Please see me if you are uncertain whether you need a calculator, or if you want help choosing one.

Mathematics tutor center: The mathematics tutor center is located in PSA 116. You must have a valid ASU Sun Card in order to get in. For more information see: [http://math.asu.edu/fym/TutorCenter/TutorCenter.html](http://math.asu.edu/fym/TutorCenter/TutorCenter.html)