



# Andover College

## COURSE SYLLABUS February 2010

**Course Number and Title:** KU122 Introduction to Math Skills and Strategies  
**Credit Hours:** 5  
**Course Prerequisites:** none

**Instructor Name and Credentials:** Carolyn Fish M.Ed.  
**Instructor Contact Information:** [cfish@andovercollege.edu](mailto:cfish@andovercollege.edu)  
**Notes, etc:** [www.fishorcutbyte.com](http://www.fishorcutbyte.com)

**NOTE:** You are expected to attend every scheduled class session and exam. If you experience a conflict or illness, you are expected to contact your instructor prior to the absence. If your first absence is not documented, you will receive an e-mail, postcard or call from your instructor. If you miss two or more class sessions, you will be contacted by a Kaplan University administrator or academic advisor. Please bring any unavoidable conflicts or absences to the attention of your instructors and advisors immediately, so we can assist you in your academic success.

**Course Day and Time:** Thursday, Tuesday 7:45-9:45 PM Feb 25 – May 4, 2010  
**Start/End Dates:** Wednesday, Monday 5:30 – 7:30 PM Feb, 24 – May 3, 2010

### Course Description:

This course will review basic skills in arithmetic, basic algebra, and geometry in order to prepare students for success in college mathematics, college algebra and subsequent courses. Students will be introduced to the process of solving equations and will implement each step of the process to help them solve real-life problems.

### Course Learning Outcomes:

1. Apply basic arithmetical operations to solve real-life problems
2. Solve linear equations and inequalities in one variable
3. Calculate area and volume of basic geometric shapes
4. Identify common graph types
5. Calculate mean, median and modes

### Instructional Materials:

Textbook: *Developmental Mathematics, 7/e*, by Bittinger/Beecher

Supplemental materials suggested: scientific calculator that does fractions

Course Assignments:

| Unit & Topic                                | Assignment Description   | Assignment Due Date  |
|---|--|----------------------|
| <p><b>Unit One: Whole Numbers</b></p>       | <p>Read pp. 1-93 in <i>Developmental Mathematics</i>.</p> <p>Practice Problems:</p> <ul style="list-style-type: none"> <li>• <b>Exercise Set 1.1: #1-53 odd</b></li> <li>• <b>Exercise Set 1.2: #1-59 odd</b></li> <li>• <b>Exercise Set 1.3: #1-121 odd</b></li> <li>• <b>Exercise Set 1.4: #1-55 odd</b></li> <li>• <b>Exercise Set 1.5: #1-59 odd</b></li> <li>• <b>Exercise Set 1.6: #1-67 odd</b></li> <li>• <b>Exercise Set 1.7: #1-75 odd</b></li> <li>• <b>Exercise Set 1.8: #1-23 odd</b></li> <li>• <b>Exercise Set 1.9: #1-47 odd</b></li> </ul> <p>KU122 SupDoc U1 project.doc</p> | <p><b>Week 1</b></p> |
| <p><b>Unit Two: Fractional Notation</b></p> | <p>Read pp. 101-166 in <i>Developmental Mathematics</i>.</p> <p>Practice Problems:</p> <ul style="list-style-type: none"> <li>• <b>Exercise Set 2.1: #1-77 odd</b></li> <li>• <b>Exercise Set 2.2: #1-67 odd</b></li> <li>• <b>Exercise Set 2.3: #1-91 odd</b></li> <li>• <b>Exercise Set 2.4: #1-61 odd</b></li> <li>• <b>Exercise Set 2.5: #1-71 odd</b></li> <li>• <b>Exercise Set 2.6: #1-73 odd</b></li> </ul> <p>KU122 SupDoc U2 Quiz.pdf</p>  | <p><b>Week 2</b></p> |
| <p><b>Unit Three: Decimal Notation</b></p>  | <p>Read pp. 173-240 in <i>Developmental Mathematics</i></p> <p>Practice Problems:</p> <ul style="list-style-type: none"> <li>• <b>Exercise Set 3.1: #1-89 odd</b></li> <li>• <b>Exercise Set 3.2: #1-57 odd</b></li> <li>• <b>Exercise Set 3.3: #1-59 odd</b></li> <li>• <b>Exercise Set 3.4: #1-69 odd</b></li> <li>• <b>Exercise Set 3.5: #1-85 odd</b></li> <li>• <b>Exercise Set 3.6: #1-27 odd</b></li> <li>• <b>Exercise Set 3.7: #1-43 odd</b></li> </ul> <p>KU122 SupDoc U3 project.doc</p>  | <p><b>Week 3</b></p> |
| <p><b>Unit Four: Percent Notation</b></p>   | <p>Read pp. 247-333 in <i>Developmental Mathematics</i>.</p> <p>Practice Problems:</p> <ul style="list-style-type: none"> <li>• <b>Exercise Set 4.1: #1-67 odd</b></li> <li>• <b>Exercise Set 4.2: #1-59 odd</b></li> <li>• <b>Exercise Set 4.3: #1-73 odd</b></li> <li>• <b>Exercise Set 4.4: #1-33 odd</b></li> <li>• <b>Exercise Set 4.5: #1-33 odd</b></li> </ul>  | <p><b>Week 4</b></p> |

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|--|---|---------------|
|  | <ul style="list-style-type: none"> <li>• <b>Exercise Set 4.6: #1-51 odd</b></li> <li>• <b>Exercise Set 4.7: #1-69 odd</b></li> <li>• <b>Exercise Set 4.8: #1-19 odd</b></li> </ul> <p>KU122 SupDoc U4 Quiz.pdf</p>  |               |
| <b>Unit Five: Data, Graphs, and Statistics</b>                             | <p>Read pp. 337-378 in <i>Developmental Mathematics</i></p> <p>Practice Problems:</p> <ul style="list-style-type: none"> <li>• <b>Exercise Set 5.1: #1-21 odd</b></li> <li>• <b>Exercise Set 5.2: #1-39 odd</b></li> <li>• <b>Exercise Set 5.3: #1-47 odd</b></li> <li>• <b>Exercise Set 5.4: #1-15 odd</b></li> </ul> <p>KU122 SupDoc U5 project.doc</p>   | <b>Week 5</b> |
| <b>Unit Six: Geometry</b>  | <p>Read pp. 383-466 in <i>Developmental Mathematics</i>.</p> <p>Practice Problems:</p> <ul style="list-style-type: none"> <li>• <b>Exercise Set 6.1: #1-61 odd</b></li> <li>• <b>Exercise Set 6.2: #1-19 odd</b></li> <li>• <b>Exercise Set 6.3: #1-49 odd</b></li> <li>• <b>Exercise Set 6.4: #1-29 odd</b></li> <li>• <b>Exercise Set 6.5: #1-37 odd</b></li> <li>• <b>Exercise Set 6.6: #1-29 odd</b></li> <li>• <b>Exercise Set 6.7: #1-53 odd</b></li> <li>• <b>Exercise Set 6.8: #1-19 odd</b></li> </ul> <p>KU122 SupDoc U6 Quiz.pdf</p>     | <b>Week 6</b> |
| <b>Unit Seven: Introductions to Real Numbers and Algebraic Expressions</b> | <p>Read pp. 471-548 in <i>Developmental Mathematics</i>.</p> <p>Practice Problems:</p> <ul style="list-style-type: none"> <li>• <b>Exercise Set 7.1: #1-55 odd</b></li> <li>• <b>Exercise Set 7.2: #1-73 odd</b></li> <li>• <b>Exercise Set 7.3: #1-77 odd</b></li> <li>• <b>Exercise Set 7.4: #1-99 odd</b></li> <li>• <b>Exercise Set 7.5: #1-81 odd</b></li> <li>• <b>Exercise Set 7.6: #1-67 odd</b></li> <li>• <b>Exercise Set 7.7: #1-117 odd</b></li> <li>• <b>Exercise Set 7.8: #1-81 odd</b></li> </ul> <p>KU122 SupDoc U7 project.doc</p> | <b>Week 7</b> |
| <b>Unit Eight: Solving Equations</b>                                       | <p>Read pp. 551-608 in <i>Developmental Mathematics</i>.</p> <p>Practice Problems:</p> <ul style="list-style-type: none"> <li>• <b>Exercise Set 8.1: #1-51 odd</b></li> <li>• <b>Exercise Set 8.2: #1-39 odd</b></li> <li>• <b>Exercise Set 8.3: #1-91 odd</b></li> <li>• <b>Exercise Set 8.4: #1-47 odd</b></li> <li>• <b>Exercise Set 8.5: #1-55 odd</b></li> <li>• <b>Exercise Set 8.6: #1-35 odd</b></li> </ul> <p>KU122 SupDoc U8 Quiz.pdf</p>   | <b>Week 8</b> |

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| <b>Unit Nine: Solving Inequalities</b> | Read pp. 609-632 in <i>Developmental Mathematics</i> .<br><br>Practice Problems:<br><ul style="list-style-type: none"> <li>• <b>Exercise Set 8.7: #1 83 odd</b></li> <li>• <b>Exercise Set 8.8: #1-49 odd</b></li> </ul> | <b>Week 9</b> |
| <b>Unit Ten: Wrap Up</b>               | <b>Final Exam</b>  |               |

**Course Content and Instructional Methods:**

This course is comprised of lectures and/or Instructor-led discussions, and quizzes. Students are encouraged to contribute their knowledge and experiences to discussions. Reinforcement of learning is accomplished through: course and chapter objectives, readings, discussions, projects, and classroom assignments.

**Andover College Grading Scale:**

The grading system listed below is used for all undergraduate courses. Letter grades are used for transcripts only. Students should be aware that grades are based in part on participation in class.

| LETTER CODE | DESCRIPTION           | SCALE     | POINTS |
|-------------|-----------------------|-----------|--------|
| A           | Outstanding           | 93-100%   | 4.0    |
| A-          | Excellent             | 90-92.99% | 3.7    |
| B+          | Very Good             | 87-89.99% | 3.3    |
| B           | Good                  | 83-86.99% | 3.0    |
| B-          | Good                  | 80-82.99% | 2.7    |
| C+          | Above Average         | 77-79.99% | 2.3    |
| C           | Average               | 73-76.99% | 2.0    |
| C-          | Fair                  | 70-72.99% | 1.7    |
| D+          | Below Average         | 67-69.99% | 1.3    |
| D           | Poor                  | 60-66.99% | 1.0    |
| F           | Failed                | 0-59.99%  | 0      |
| AU          | Audit                 | 0 - 0     | 0      |
| CC          | Credit by Examination | 0 - 0     | 0      |
| EC          | Experiential Credit   | 0 - 0     | 0      |
| I           | Incomplete            | 0 - 0     | 0      |
| P           | Pass                  | 60-100    | 0      |
| TC          | Transfer Credit       | 0 - 0     | 0      |
| W           | Withdrawal            | 0 - 0     | 0      |

**Course Specific Grading and Assessment:**

| Unit #        | 1         | 2          | 3         | 4          | 5         | 6          | 7         | 8          | 9          | 10       | Total       |
|---------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|------------|----------|-------------|
| Participation | 42        | 42         | 42        | 42         | 42        | 42         | 42        | 42         | 45         |          | 380         |
| Final Exam    |           |            |           |            |           |            |           |            | 259        |          | 260         |
| Project       | 30        |            | 30        |            | 30        |            | 30        |            |            |          | 120         |
| Quiz          |           | 60         |           | 60         |           | 60         |           | 60         |            |          | 240         |
| <b>Total</b>  | <b>72</b> | <b>102</b> | <b>72</b> | <b>102</b> | <b>72</b> | <b>102</b> | <b>72</b> | <b>102</b> | <b>304</b> | <b>0</b> | <b>1000</b> |

## REQUIREMENTS FOR THE SUCCESSFUL COMPLETION OF THE COURSE:

- A. Readings. Text and supplemental reading assignments should be completed before the class for which they are assigned. The reading assignments are an integral part of this course and will be necessary to understand the class discussions and perform well on written and examination assignments. You may be tested on material in any assigned reading, even if the material is not covered in the class discussions.
- B. Class discussions/participation. This course will involve substantial class discussion. As a student in the course, you are expected to participate in these activities by listening and contributing. Part of your grade will be based on this participation. These class discussions will remain informal as long as students do not interrupt each other, or create an unacceptable atmosphere.
- C. Homework and class assignment. Because of the nature of this course, regularly practicing the concepts in the course is essential. Written homework may be assigned occasionally. All assignments are due on the dates scheduled. Keep in mind that makeup of homework is at the instructor's discretion. Students are expected to put appropriate time and effort into the homework assignments. There may also be assignments performed during class.
- D. Testing. A missed quiz must be taken by the next class session.
- E. Project. The course project will involve researching a topic in the Andover College Library and applying critical thinking skills to a subject or topic which interests the student. Students will be asked to choose their own topic through a course activity, and further details will be given within the first week of the course.
- F. Fulfillment of Academic Standards: See statement below:

## STATEMENT OF ACADEMIC STANDARDS:

**Writing Standard:** The faculty of Andover College recognizes the importance of clear, coherent, well organized grammatically correct writing. The ability to write well and express ideas clearly is essential, both in school and in the workplace. All writing assignments for this class must address a suitable topic (as outlined by the instructor); contain efficient, relevant content to fulfill the length and subject requirements of the assignment; be effectively organized using grammatically correct, complete sentences and coherent paragraphs; and must be free of spelling, punctuation, and mechanical errors.

**Class Participation Standard:** Class participation includes, but is not limited to, arriving on time, staying for the entire class, being prepared, being polite and courteous, being a team player, and participating in class. Andover College values these qualities of a dedicated learner. Students are expected to attend all class sessions without exception. Students are responsible for any materials covered and work assigned during a missed class period. Daily lessons will not be re-taught. Your attendance is essential to an effective group dynamic and your successful completion of this course. For more specific attendance related requirements, please refer to the Andover College Catalog.

**Academic Honesty Standard:** Upon graduation, you will become a participant in your chosen profession. Then and now, your conduct must meet the highest standards of honesty and integrity. All students must complete their own work unless permitted to work together. Students should not submit the same work in two different classes unless BOTH instructors give their approval. Students are held to the standards of the Andover College Honor Code. For additional clarification of cheating, refer to the Andover College Honor code in the College Catalog.

**Technology Standard:** Because cell phones and pagers can be disruptive in the class and learning environment, these devices must be turned off or on meeting/silent mode before entering the classroom. Additionally, the instructor reserves the right to deny or limit use of other electronic devices including laptop computers.

**Accommodations for Students with Disabilities:** Students requiring academic adjustments or accommodations because of a diagnosed disability are requested to arrange a meeting with one of the ADA Compliance Coordinators: Chris Lashua, Director, Portland Academic Assistance Center, or Paul Kinney, Coordinator, Lewiston Academic Assistance Center, so accommodation requests can be reviewed.

## FOOD AND DRINK IN THE CLASSROOM

Food and drink in the classroom (except the labs) is a privilege—not a right. ***Please do not abuse this privilege.*** If the use of food or drink becomes a hindrance to learning either by odor or noise, the student will be asked to dispose of the item(s) or to leave the class. **No food or drink is allowed in computer or medical laboratories at any time.**

**REVIEWED, EDITED, and UPDATED:** By Kevin Kelly, Chair of Department of Arts and Sciences on February 12, 2010.