Course Syllabus – Fall 2018

COURSE: MATH 130 – Precalculus

INSTRUCTOR: Jim Anthony

OFFICE: 158 Hoyt

OFFICE HOURS: MWF 11:45 am – 12:45 pm (Also by appointment.)

PHONE: x7285

WEB-PAGES: www.westminster.edu/staff/anthonj/

E-MAIL: anthonj@westminster.edu

E-BOOK: www.webassign.net - Class Key: westminster 7626 4278

Precalculus – 7th edition, Stewart

GRADING 450 total points

Homework: Homework will be collected on webassign. At the end of the semester, the homework scores will be used to generate a score out of 50 points.

Tests: There will be one 150-point mid-term exam.

Quizzes / Problem Sets: There will be 50 points worth of quizzes and/or problem sets.

Final: There will be a required comprehensive final exam to be given during finals week. The final exam will count as 200 points.

There are NO makeup quizzes and late homework or problem sets will NOT be accepted.

Make-up exams will be possible with permission of the Dean.

Make-up exams may be more difficult than the original exam.

Class participation/contribution and attendance may be used to determine borderline cases.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Min Score</th>
<th>Grade</th>
<th>Min Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93.3</td>
<td>C+</td>
<td>76.6</td>
</tr>
<tr>
<td>A -</td>
<td>90.0</td>
<td>C</td>
<td>70.0</td>
</tr>
<tr>
<td>B+</td>
<td>86.6</td>
<td>D</td>
<td>60.0</td>
</tr>
<tr>
<td>B</td>
<td>83.3</td>
<td>F</td>
<td>0.0</td>
</tr>
<tr>
<td>B -</td>
<td>80.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These cutoffs may be lowered and there will be chances for extra-credit during the course.
EXTRA-CREDIT

There may be optional extra-credit opportunities throughout the semester. **Students with poor attendance (2 or more unexcused absences) will not receive any extra-credit in the course.**

CELL PHONES & OTHER ELECTRONIC DEVICES

Cell phones and any other electronic devices are to be put away (not lying on desk/lap/etc.) & turned off or silenced during class. A bonus of ten points will be added to one homework score if the student is not observed with a cell phone or other electronic device during any class period. For each violation, five points will be deducted from this bonus. Violations after the 2nd will result in subtracting points from a homework score.

There are two exceptions to this rule:

1. Students may use laptop computers to access webassign during the homework question & answer period.
2. Students can ask (before class) if they can leave their phone on their desk in case of an emergency situation.

ATTENDANCE

Attendance is required. Math is difficult to learn at times as the new material builds on the previous material. If you miss a class, it is crucial to learn the material as soon as possible. Please let me know prior to missing a class. If there is an emergency and you need to miss class, please notify me as soon as possible afterwards.

**Each unexcused absence will lower your final grade percentage by ONE percent.**

**Perfect attendance will raise your final grade percentage by TWO percent.**

Goals:

- To gain an understanding of functions including domain, range, and applications.
- To gain an understanding of graphs and transformations.
- To gain the ability to factorize polynomials and solve various equations.
- To gain an understanding of exponential and logarithmic functions.
- To attain the mathematical skills necessary to prepare the student for success in calculus.

Course Topics:

- Real line (interval and set notation), coordinate plane, equations and graphs, functions, domain, range, applications
- Special classes of functions: linear, quadratic, polynomial, rational, composition of functions, inverse functions, zeros of polynomials, factoring, regions of the planes and equations that describe these regions, special equations including circles, lines, parabolas
- Exponential and logarithmic functions, graphs, translation of function graphs, applications of exponential and logarithmic functions
- Other topics as time allows
Course Objectives:
Students should be able to
- solve equations and inequalities.
- express solution sets as an inequality, using interval notation, and on a real number line.
- determine intercepts and symmetry of functions and relations.
- use the horizontal and vertical line tests and correctly interpret the results.
- determine equations of lines.
- manipulate graphs to create a new graph through translations, reflections, and shifts.
- combine functions (algebraic combinations as well as function composition).
- determine the domain and range and any asymptotes of a function and its inverse.
- determine the distance between two points.
- convert equations of circles into standard form and sketch their graphs.
- compute difference quotients and describe what is being computed.
- solve polynomial equations using various techniques.
- compute logarithms and use them to solve equations.
- solve systems of equations.

ASSIGNED WORK IS NOT ACCEPTED LATE unless the delay is due to a verified emergency, crisis, or death, in which case a note from the Dean of Student Affairs will be forthcoming. Absence from class is not a reason for submitting late work.

HOMEWORK ASSIGNMENTS are to be submitted on webassign.

All information in this outline is subject to change at the discretion of the instructor.

ACADEMIC INTEGRITY: Central to the purpose and pursuit of any academic community is academic integrity. All members of the Westminster community, including students, faculty, staff, and administrators, are expected to maintain the highest standards of honesty and integrity, in keeping with the philosophy and mission of the College. Academic dishonesty is a profound violation of this code of behavior.

This academic integrity statement is taken from the Westminster College Undergraduate Catalog. It is imperative that you never submit the work of others as though it is your own work nor should you ever allow anyone else to use your work without giving credit to you. The penalty for academic dishonesty in this class is minimally the grade of 0 on the assignment and, except for unusual circumstances, a grade of F for the course. Any event of academic dishonesty is reported to the Dean of the College. Other details of violations and consequences are given in the catalog.

GROUP WORK: Group work is a proper and effective way to study and learn if all participants do their full share of the work. It is possible to misunderstand exactly what it means to be responsible for “doing your own work.” You may (and should) discuss problems with other students and reach conclusions together. However, it is a form of academic dishonesty for a student, who has not attended class, read the assignment, or thought about the problem on their own to try to use the ideas developed by a group or claim credit for work to which one has not contributed. It is also dishonest to encourage or allow such practices on the part of others. You must, in all cases, leave the group discussion and write your own solutions for the exercises you submit for grading.
ACCESSIBILITY STATEMENT:
Westminster College actively strives for the full inclusion of all our students. Students with disabilities who require access solutions for environmental or curricular barriers should contact Faith Craig, Director of Disability Resources, located in 209 Thompson-Clark Hall. phone: 724-946-7192 e-mail: craigfa@westminster.edu

CATALOG DESCRIPTION:
MTH 130 Precalculus (4 SH), A precalculus course for those who need a better foundation in algebraic concepts, functions and graphing. Topics of study include algebra fundamentals, linear and quadratic equations, trigonometry, systems of equations, functions and their graphs. Open only to students who plan to enroll in MTH 131 or MTH 150. This course does not fulfill the all college quantitative reasoning requirement.