MAT 170 – (SLN)
Precalculus: Pathways to Calculus
(Semester / Year)
(Class Days / Times / Location)

Instructor: **Email:**

Office Number:

Course Website: www.rationalreasoning.net

Workbook/Online Text: Precalculus – Pathways to Calculus, 3rd ed. by Carlson and Oehrtman

Homework assignments and grades will be posted on Blackboard.

Course Description: Preparation for calculus focusing on quantitative reasoning and functions. Topics include: proportionality and constant rate of change; polynomial, rational and exponential functions; logarithms; unit-circle, geometrical and analytical trigonometry.

Prerequisites and Placement: Prerequisite with a grade of "B" (3.00) or higher: MAT 106. Prerequisite with a grade of "C" (2.00) or higher: MAT 113 or 117 (or its equivalent) or 2 years of high school algebra. It is essential that students in MAT170 have a command of basic algebraic skills such as factoring, basic equation solving, and a thorough knowledge of the rules of exponents and radicals.

Workbook/Online Text: A workbook with associated online text is required for this course. The workbook includes worksheets and homework assignments. The text includes embedded videos and interactive applets to help further your understanding of the concepts covered. You can purchase the text at the ASU Bookstore or online at http://www.rationalreasoning.net. (If you order online it will take 2-3 days to receive your workbook.)

Calculator: A graphing calculator is required for this course. If you already have a graphing calculator, you may use it. Examples of highly recommended models are the TI 83/84 or Casio 9850 GB Plus. Calculators such as TI- 89, TI-92, HP-48, HP-48G, and Casio 9970 that perform symbolic manipulation will not be permitted for use during class or during exams. This link gives some help with graphing calculators: (http://math.asu.edu/fym/GraphCal/Graphing.html)

Graphing Calculator Workshops: The Mathematics Department will provide graphing calculator workshops to assist in your learning to use your calculator. The dates & locations are:

Course Goals:
1. To understand the central ideas of the course and prepare students for success in calculus.
2. To increase algebraic and procedural fluency.
3. To support students in improving their problem solving abilities.
4. To learn how to make logical and verbal arguments.

Course Structure: The class sessions will involve collaborative learning, whole class discussions, direct instruction and student presentations. Attendance is vital to your success in this class.

Rules of Engagement:
1. **Speak with Meaning**
   What you say should carry meaning *to others*. Reference quantities – NO pronouns. Explain and justify your approach
2. **Exhibit Intellectual Integrity**
   Base your conjecture on a logical foundation; don't pretend to understand when you don't.
3. **Strive to Make Sense**
   Persist in making sense of your peer's thinking.
4. **Respect the Learning Process of Others**
   Allow others the opportunity to think, reflect and construct. When assisting your peers, pose questions to help them construct meaning rather than show them how to get the answer.

Grading Policy:
1. **Exams:** There will be 3 exams given during the semester. The best possible preparation for the exams is regular attendance and completion of assigned homework. These exams are to be completed outside of regular class time in the Mathematics Department Testing Center (http://math.asu.edu/fym/tstcenter.html) in PSA 21 (basement). **To be admitted to the Testing Center each student must have a valid ASU Sun Card. The testing center admits students from 10:30 a.m. – 8:45 p.m. Monday-Thursday. You MUST arrive *before* 6:30 pm to receive and take your test. The testing center is closed on Fridays. NO SKATEBOARDS ARE ALLOWED IN THE TESTING CENTER.** The Testing Center will not allow late entry. Arrival before the door closes allows the student one hour and forty-five minutes to complete the test. Students should complete exams as early as possible during the allotted time frame, since the Testing Center can get extremely busy in the afternoons. Your calculator memory may be viewed during any exam and will be cleared if anything suspicious is noted. The instructor has the right to regard finding suspicious material in your calculator memory as cheating.

Exam	Dates	Topics on exam
PCA Pre-test:		PCA Pre-test
Exam #1:		Module 2: Reasoning About & Representing Quantities Module 3: Functions, Inverses, & Function Composition
Exam #2:		Module 4: Exponential/Logarithmic Functions Module 5: Co-variation and Polynomial Functions Module 6: Rational Functions
Exam #3:		Module 7: Trigonometry Module 8: Trigonometry and Right Triangles
PCA Post-test:		PCA Post-test (subject to change)
Final Exam:		Cumulative

*Note: Actual exam dates are subject to change. All changes will be announced in class.

2. **Final Exam:** All students will be required to take the final exam during the scheduled time. This exam will be cumulative and will cover all material taught during the semester. See final exam data listed above.

3. **Written Homework:** Throughout the semester, you will have written homework assignments. All written homework is to be completed as assigned. These assignments will be comprised of problem solving and will require you to reveal your reasoning, justification and reflection on your thinking. It is your responsibility to complete the homework assignments prior to the next class meeting. Your instructor will review your homework and your grade will be based on completion, accuracy, neatness, and work shown. **Late homework will not be counted for credit.**

4. **Text:** Most days you will be asked to read the appropriate text to prepare for the next class. You will demonstrate your completion by turning in short (2 to 3 sentences) written assignments or in-class quizzes.

5. **Worksheets:** You are required to complete and keep a workbook containing all of the course worksheets.

6. **Participation:** In addition to attending class, you are also expected to participate in any course activities planned for the class session. Participation is defined as contributing to mathematical discussions relative to your assignments, completing mathematical assignments, and presenting your mathematical thinking to the class. Failure to actively participate during class will result in a loss of participation points allotted for each class session. Examples of non-participation include, but are not limited to, working on non-mathematical content or assignments from other courses, text messaging during class, or engaging in discussions with students on topics outside of mathematics.

7. **Attendance:** Your success in this class is dependent upon your attendance. You are required to attend class at each class meeting. If you must miss class, please contact your instructor via email and/or another student from your class. The Mathematics Department attendance policy will be enforced in this course. **The number of absences cannot exceed twice the number of times your class meets per week.** For example, if your course meets two days per week, the maximum number of allowed absences is four (4). If your course meets three days per week, the maximum number of allowed absences is six (6). **Students who exceed the number of allowed absences will receive a grade of EN for the course.**

<u>Grading Procedure</u>: Your grade is dependent upon how well you demonstrate your comprehension of the subject through application and completion of the items listed above in this syllabus.

Assignments	Percent Allocation	Grades
3 Exams:	45%	A: 90%-100%
Final Exam:	20%	B: 80%-89%
Homework:	20%	C: 70%-79%
Quiz / Worksheets / Attendance:	15%	D: 60%-69%
		E: Below 60%

Tutoring Options: You should to spend 3 hours per week in one of the tutor centers at ASU. This time will count towards your points for your grade. The following is a list of tutoring venues where you can find assistance for your questions about the course.

1. **Pathways Precalc Help Room.** This is specifically for students in Pathways Precalculus. Availability and location to be announced.

2. **ASU Mathematics Tutor Center.** The Mathematics Tutor Center, located in PSA-116, is a free, drop-in tutoring service for mathematics students. **To be admitted to the Tutoring Center each student must have a valid ASU Sun Card.** Information can be found online at http://math.asu.edu/fym/TutorCenter/TutorCenter.html.

3. **ASU Learning Resource Center (LRC).** The LRC provides counseling, tutoring in math (and many other subjects), supplemental instruction, and other types of support to students. Information can be found online at http://www.asu.edu/studentaffairs/lrc/index.html.

Cell Phone/Technology Policy: Upon entering class all cell phones, pagers, PDAs, iPods and any other similar technical devices need to be turned off. If there is a true emergency call or page you are expecting, let me know before class. You will forfeit your attendance points if your cell phone or pager goes off during class. Furthermore, text messaging during class time will not be tolerated. The instructor will take appropriate action if you send or receive text messages during class.

Disabilities: If you have a disability, please notify your instructors and the ASU Disability Resource Center (http://www.asu.edu/studentaffairs/ed/drc/) at 480.965.1234 as soon as possible so that accommodations can be made.

Disclaimer: It is the student's responsibility to know all of the information contained in this syllabus. Any changes to the syllabus and course calendar will be announced in class. Students are responsible for these changes whether in attendance or not. It is also the student's responsibility for reviewing the college policies included in the college catalog and the student handbook.

Getting Started: Here is list of things to do to get started in your Precalculus course:
1. Purchase the workbook with accompanying online text in the bookstore or online at www.rationalreasoning.net
2. Complete the PCA assessment in the Testing Center (PSA 21). Remember to have your Sun Card ready!

First Year Mathematics Courses: (Fall / Spring) Semester (Year)
Departmental and University Policies and Procedures

Course Withdrawal Deadline - In Person & Online	
Complete Withdrawal Deadline	

Withdrawal: A student may withdraw from a course with a grade of **W** during the withdrawal period. The instructor's signature is not required.

The grade of Incomplete: A grade of incomplete will be awarded only in the event that a documented emergency or illness prevents the student who is doing acceptable work from completing a **small** percentage of the course requirements. The guidelines in the current general ASU catalog regarding a grade of incomplete will be strictly followed.

Instructor-Initiated Drop: At the instructor's discretion, any student who has not attended class during the first week of classes may be administratively dropped from the course. (You should take special note that non-attendance does NOT automatically result in you being dropped from the course. It is your responsibility to be aware of your registration status.)

Final Exam Make-up Policy: The final exam schedule listed in the Schedule of Classes will be strictly followed. Exceptions to the schedule and requests for make-up final examinations can be granted only by the Department Chair, Associate Department Chair, or the Director of First Year Mathematics, and for one of the following reasons:
1. Religious conflict (e.g., the student celebrates the Sabbath on Saturday)
2. The student has more than three exams scheduled on the same day as the math final
3. There is a time conflict between the math final and another final exam.

If there is a last-minute personal or medical emergency, the student may receive a grade of Incomplete and make up the final within one calendar year. The student must provide written documentation and be passing the class at the time to receive an Incomplete. Make-up exams will NOT be given for reasons of non-refundable airline tickets, vacation plans, work schedules, weddings, family reunions, and other such activities. Students should consult the final exam schedule before making end-of-semester travel plans. *The Dean of the student's college must approve any exceptions to these rules.*

Honor Policy: The highest standards of academic integrity are expected of all students. The failure of any student to meet these standards may result in suspension or expulsion from the University or other sanctions as specified in the University Student Academic Integrity Policy. Violations of academic integrity include, but are not limited to, cheating, fabrication, tampering, plagiarism, or facilitating such activities.

The grade of XE: A grade of **XE** is reserved for "failure for academic dishonesty." The XE grade may be petitioned after 1 year.

ASU academic integrity policy: These can be found at: http://provost.asu.edu/academicintegrity/policy, and http://provost.asu.edu/academicintegrity/policy/StudentObligations