MEETING TIMES

MATH 1350-300 meets MW 12noon-1:15pm in L244

CONTACT INFORMATION

Instructor: Dr. Patrice Poage
DESCRIPTION

Problem solving and critical thinking techniques, sets, functions, different number systems, operations on and properties of natural numbers, integers, whole numbers, rational numbers, decimal numbers, and number theory. Designed for Elementary Education Majors.

3 lecture hours per week; 48 total contact hours. Credit: 3 semester hours.

Requisites

Prerequisites: A "C" or better in any one of the following courses: MATH 1314, MATH 1324, MATH 1325, or an equivalent course; or a "C" or better in MATH 2412 or higher, or an equivalent course; or a college ready TSIA math score or TSIA exemption; or an appropriate score on an approved placement test.

Corequisites: None

CORE CURRICULUM STATEMENT

This course is not a core curriculum course.

OUTCOMES

1. The students will be able to use inductive reasoning to identify, extend, and create patterns using concrete models, figures, numbers, and algebraic expressions, use conjectures about patterns and relationships in data presented in tables, sequences, or graphs to formulate implicit and explicit rules to describe and construct sequences verbally, numerically, graphically, and symbolically.
2. The students will be able to evaluate assumptions and select an appropriate strategy for a given problem and evaluate the reasonableness of a solution.
3. The students will be able to develop a physical and numerical mathematical model of a given real world situation or mathematical procedure and analyze, evaluate how well the model represents the situation, and solve problems with multiple solutions, using concrete, iteration, recursion, numeric, tabular, graphic,
algebraic methods and simulations.
4. The students will be able to apply principles of inductive reasoning to make conjectures and use deductive methods to evaluate the validity of conjectures and to derive valid conclusions from a set of premises as well as recognize examples of fallacious reasoning and evaluate and provide convincing arguments and proofs for mathematical theorems.
5. The students will be able to compare and contrast numeration systems; analyze, explain, and model the structure of numeration systems (in particular, the role of place value and zero in the base ten system and demonstrate a sense of equivalency among different representations of rational numbers).
6. The students will be able to use the four basic operations and formal/informal algorithms using whole numbers, integers, rational numbers and real numbers.
7. The students will be able to demonstrate a sense of quantity and describe different ways to interpret the four basic operations for whole numbers, integers, rational numbers, and real numbers; analyze error patterns that often occur when students use formal/informal algorithms to perform operations.
8. The students will be able to apply place value and other number properties to develop techniques of mental mathematics and computational estimation, select appropriate representations of real numbers (e.g., fractions, decimals, percents, roots, exponents, and scientific notation) for particular situations and justify that selection and be able to extend and generalize the operations on integer and rational numbers to include exponents, their operations, their properties, and their applications to the real numbers.
9. The students will be able to represent mathematical and real world situations using concrete models, tables, graphs, and symbolic expressions; as well as translate problem-solving situations into expressions and equations involving variables and unknowns. The students will also be able to solve linear and nonlinear problems and be able to give appropriate justification of the manipulation of algebraic expressions, equations, and inequalities.

MATERIALS

Course Notes: Purchase Dr. Poage’s MATH 1350 Course Packet at Blinn's Copy Center. (Copy Stop located beside the bookstore)

MyMathLab Plus: go to http://blinn.mylabsplus.com to purchase the code to the online homework. This comes with an online textbook. You can also purchase the code at the bookstore on campus.


No graphing calculators allowed. However, a 4-function or small scientific calculator is fine.
The student should maintain at least a 70% average on all course work covering Problem solving techniques, functions, different number bases, operations on and properties of integers, whole numbers, rational numbers, decimal numbers, and number theory.

## EVALUATION

### Criteria

<table>
<thead>
<tr>
<th>Type</th>
<th>Weight</th>
<th>Topic</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grading Policy</td>
<td>-</td>
<td></td>
<td>- 4 Exams - 15% each&lt;br&gt;- Quizzes - 10%&lt;br&gt;- Online Homework - 10%&lt;br&gt;- Final Exam - 20 %</td>
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<tr>
<td>Exams</td>
<td>15%</td>
<td>Exams will be 4 major exams worth 15% each. The format of the exams will be discussed the class day before each exam. Using a cell phone during the exam, even as a calculator, is considered scholastic dishonesty and will result in a 0 on the exam.</td>
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<tr>
<td>Quizzes</td>
<td>10%</td>
<td>Quizzes could be in class individual quizzes, partner quizzes, open notes quizzes, or take-home quizzes. Each quiz is worth 10 points and the lowest quiz grade will be dropped at the end of the semester. Quizzes will not always be announced ahead of time.</td>
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<tr>
<td>Online Homeworks</td>
<td>10%</td>
<td>You will have an online homework set to do for EACH section taught. These will count for a grade. The lowest grade will be dropped at the end of the semester. The due dates (found further in this syllabus) fall on random days of the week, so pay attention to due dates. <a href="http://bla">http://bla</a></td>
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</table>
**Breakdown**

Below are letter grades that correspond to the final numerical grade:

- A = 89.5-100;
- B = 79.5-89.4;
- C = 69.5-79.4
- D = 59.5-69.4
- F = 0-59.4

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**BLINN COLLEGE POLICIES**

Blinn College policies on civility, class attendance; scholastic integrity; students with disabilities; final grade appeals; and electronic devices as stated in the Blinn College Faculty Handbook, Blinn College Catalog and specific technical program handbooks. All policies, guidelines and procedures in the Faculty Handbook, the Board Policy and Administrative Procedure Manuals are applicable to this course.

**Civility Statement**

Members of the Blinn College community, which includes faculty, staff and students, are expected to act honestly and responsibly in all aspects of campus life. Blinn College holds all members accountable for their actions and words. Therefore, all members should commit themselves to behave in a manner that recognizes personal respect and demonstrates concern for the personal dignity, rights, and freedoms of every member of the College community, including respect for College property and the physical and intellectual property of others.

**Civility Notification Statement.** If a student is asked to leave the classroom because of uncivil behavior, the student may not return to that class until the student arranges a conference with the instructor; it is the student’s responsibility to arrange for this conference.

This statement reflects step one in a possible four step process. The Incivility Protocol is detailed in the *Blinn College Administrative Procedure Manual.*
Attendance Policy

The College District believes that class attendance is essential for student success; therefore, students are required to promptly and regularly attend all their classes. The faculty shall require students to regularly attend class and shall keep a record of attendance from the first day of classes and/or the first day the student’s name appears on the roster through final examinations. If a student has one week’s worth of unexcused absences during the semester, he or she will be sent an e-mail by the College District requiring the student to contact his or her instructor and schedule a conference immediately to discuss his or her attendance issues. Should the student accumulate two weeks’ worth of unexcused absences, he or she will be administratively withdrawn from class.

There are four forms of excused absences recognized by the institution:

1. observance of religious holy days—The student should notify his or her instructor(s) not later than the 15th day of the semester concerning the specific date(s) that the student will be absent for any religious holy day(s);

2. representing the College District at an official institutional function—If a student is asked by the College District to be an official representative of the College District at any function approved by the institution, the student shall be excused from any classes missed and must be allowed to complete all work without penalty for that absence(s) in a timely manner as directed by the faculty member;

3. a high school student representing the independent school district at an official institutional function—If a high school student is asked by the independent school district to be an official representative of the school district at any function approved by the institution, the student shall be excused from any class missed and must be allowed to complete all work without penalty for the absence(s) in a timely manner as directed by the faculty member; and

4. military service—If a student can prove he or she is serving on active duty to which he or she is called with the Armed Forces of the United States, the student shall be excused from attending classes and allowed to complete an assignment or take and examination from which the student is excused within a reasonable time after the absence.

Other absences may be excused at the discretion of the faculty member. A student enrolled in a developmental course is subject to College District-mandated attendance policies. Failure to attend developmental classes shall result in removal from the course as defined by the College District. Board Policy FC (LOCAL)

It is the student’s responsibility to officially drop a class he or she is no longer attending. More information on drop limits and withdrawing can be found in the Blinn College Catalog. The last day to drop with a Q is according to the Academic Calendar.
Scholastic Integrity

Blinn College does not tolerate cheating, plagiarism, or any other act of dishonesty with regard to the course in which you are enrolled. The following text defines the faculty member’s responsibility with regard to the scholastic integrity expectation for this and all courses at Blinn College. In a case of scholastic dishonesty, it is critical that written documentation be maintained at each level throughout the process.

It is the responsibility of faculty members to maintain scholastic integrity at the College District by refusing to tolerate any form of scholastic dishonesty. Adequate control of test materials, strict supervision during testing, and other preventive measures should be utilized, as necessary, to prevent cheating or plagiarism. If there is compelling evidence that a student is involved in cheating or plagiarism, the instructor should assume responsibility and address the infraction. Likewise, any student accused of scholastic dishonesty is entitled to due process to resolve the allegation as outlined in Blinn College Board Policy FLDB (Local). The Scholastic Integrity Policy is located in the Blinn College Catalog.

Students with Disabilities

Non-Discrimination Statement

Blinn College does not discriminate against qualified individuals with disabilities in the recruitment and admission of students, the recruitment and employment of faculty and staff, or the operation of any of its programs and activities, as specified by applicable federal laws and regulations. The designated coordinator for Blinn College’s compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 (ADA), and the Americans with Disabilities Act Amendment Act (ADAAA) is Patricia E. Moran, M.Ed., 902 College Avenue, Brenham, TX 77833, (979) 830-4157. The College’s facilities are accessible to students and visitors with disabilities. Designated parking spaces, ramps, handicapped restroom facilities, elevators, and assistance from College employees are readily available on all campuses. The College’s faculty and staff work closely with students with disabilities to meet their individual needs.

Services for Students with Documented Disabilities

Students with documented disabilities must self-identify and provide current, appropriate documentation of the disability to the Office of Disability Services (ODS) prior to receiving services. Students are encouraged to contact this office as early as possible to initiate services. Direct services to students with disabilities are provided in the following areas:

- Assessment of needs and appropriate services
- Provision of classroom and testing accommodations
- Assistance in orientation and registration procedures
- Counseling on disability related issues

Information, education, referrals, and consultation about specific disabilities are available to interested parties on request. For answers to specific questions or to request an information packet, contact the Office of Disability Services on the specific
Final Grade Appeal

If a student wishes to appeal a final grade in a course, Blinn College Board Policy FL DB (Local), Course Grade Complaints, outlines the timeline and steps for appeal. This policy is located in the Blinn College Catalog.

Electronic Devices

Cellular telephones and beepers/pagers must be disengaged while the student is in the Blinn College Library or any classroom/lab, unless otherwise instructed. Any noncompliance with this policy shall be addressed in accordance with the Blinn College Administrative Procedure Manual- Incivility Protocol.

COURSE POLICIES

Attendance Policy

Beware of being dropped: 1 weeks worth of absences = 2 days; 2 weeks worth of absences = 4 days. Thus, if you miss 4 days you will be dropped from this course.

Tardies: 2 tardies = 1 absence. If you show up 1-14 minutes late for class you will be considered tardy.

Absences: If you show up to class more than 15 minutes late, you will be counted absent for that day.

If you leave class early without prior permission from the instructor, you will be counted absent.

Classroom Policies

- No food, drinks, or tobacco products are allowed in the classroom.
- NO TEXTING during class or you will be asked to leave and counted absent.

Sources of Help
From the document:

- **ASK QUESTIONS IN CLASS**
- Ask me questions before/after class (L222)
- work with each other (form study groups)
- Go to the tutor lab.
- Get a private tutor

### Make-Up Policy

There will be NO make-ups given without an official authorized excuse. If you are not sure what constitutes as an excused absence, ask your instructor.

There will be NO make-ups for online homework.

The student must contact the instructor either prior to or within 24 hours of missing an exam in order to get to take a make-up.

### Test Day Policy

- All bags/books/papers/purses/coats will need to be placed against either the front or back wall.
- No calculator covers...keep them against the wall with your stuff.
- No scratch paper. If you need some, just ask.
- Turn your phone OFF and take it to your desk with you. Set it upside down in front of you.
- You may NOT leave the classroom during the test for ANY reason. Go to the bathroom BEFORE the test. If you leave, I will grade your test at that point, however far you've gotten.
- All you need at your desk is: Pencil/Eraser/Calculator/Phone/Drink
- NO PROGRAMS in your calculator AT ALL.

### SCHEDULE

**MATH 1350 -Spring 2015 - Dr. Poage's schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Content</th>
<th>CH</th>
</tr>
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<tbody>
<tr>
<td>19-Jan</td>
<td>1.1 Intro and Problem Solving</td>
<td>1.5</td>
</tr>
<tr>
<td>21-Jan</td>
<td>1.1 Problem Solving</td>
<td>1.5</td>
</tr>
<tr>
<td>26-Jan</td>
<td>1.2 Explorations with Patterns</td>
<td>1.5</td>
</tr>
<tr>
<td>Date</td>
<td>Topic</td>
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<tr>
<td>28-Jan</td>
<td>1.3 Logic and Reasoning</td>
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<tr>
<td>2-Feb</td>
<td>2.2 Describing Sets</td>
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<tr>
<td>4-Feb</td>
<td>2.3 Other Set Operations and Their Properties</td>
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<tr>
<td>9-Feb</td>
<td>2.1 Numeration Systems</td>
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<tr>
<td>11-Feb</td>
<td>Review for Exam 1</td>
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<tr>
<td>16-Feb</td>
<td>Exam 1</td>
<td></td>
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<tr>
<td>18-Feb</td>
<td>3.1 &amp; 3.2 Addition, Subtraction of Whole Numbers (including Algorithms)</td>
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<tr>
<td>23-Feb</td>
<td>3.3 &amp; 3.4 Multiplication, Division of Whole Numbers (including Algorithms)</td>
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<tr>
<td>25-Feb</td>
<td>3.4 Algorithms for whole Number Multiplication and Division</td>
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<tr>
<td>2-Mar</td>
<td>8.2, 8.3, 8.4 Variables, Equations, Functions</td>
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<tr>
<td>4-Mar</td>
<td>Review for Exam 2</td>
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<tr>
<td>9-Mar</td>
<td>Exam 2</td>
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<tr>
<td>11-Mar</td>
<td>Fun Day! (Bring masking tape, 2 colored sharpees, &amp; scissors)</td>
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<tr>
<td>23-Mar</td>
<td>5.1 &amp; 5.2 Integer Operations: Addition/Subtraction/Multiplication/Division</td>
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<tr>
<td>25-Mar</td>
<td>4.1 &amp; 4.2 Divisibility Rules and Prime/Composite numbers</td>
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<tr>
<td>30-Mar</td>
<td>4.2 &amp; 4.3 Prime/Composite Numbers and GCD, LCM</td>
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<tr>
<td>1-Apr</td>
<td>6.1 &amp; 6.2 Rational Numbers; Multiplication/Division of Rational Numbers</td>
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<tr>
<td>6-Apr</td>
<td>6.3 Multiplication and Division of Rational Numbers</td>
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<tr>
<td>8-Apr</td>
<td>Review for Exam 3</td>
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<tr>
<td>13-Apr</td>
<td>Exam 3</td>
<td></td>
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<tr>
<td>15-Apr</td>
<td>7.1 &amp; 7.2 Decimals and Operations of Decimals</td>
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<tr>
<td>20-Apr</td>
<td>7.3 &amp; 8.1 Non-Terminating Decimals and Real Numbers</td>
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</tbody>
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22-Apr  6.4 & 7.4 Ratios, Proportions, Proportional Reasoning, Percents  1.5
27-Apr  Review for Exam 4 1.5
29-Apr  Exam 4 1.5
4-May  Project TBA 1.5
6-May  Review for Final 1.5
       Final Exam 2.7
       Total Credit Hours 47.7

** Last Day to Q-Drop is April 17th

MCS BACKGROUND INFO

General

ACGM Approval Number: 27.0101.56 19
CIP Area: Mathematics
Course Type: Academic
Core Course: No

Purpose

All of the mathematics courses are based upon a strong foundation in algebraic
skills. The faculty has made a commitment to the proper placement of students in
algebra courses and above. Blinn Colleges commitment to providing its students with
a strong academic foundation is reflected in requiring its graduating students to
successfully complete 1000-level or above mathematics courses for the mathematics
requirement in an A.A. or A.S. degree. The purpose of this class is to prepare a
student to matriculate to MATH 1351.

Assessment

The effectiveness of MATH 1350 is measured by two instructional effectiveness
methods of course assessment--tracking and grade distributions. Tracking will be
measured by the percentage of students that made an A-C in Math 1350 and went
on to make an A-C in MATH 1351. Success will be measured by a 60% or higher
threshold. Grade distribution will be measured by the percentage of students making
an A-C. Success will be measured with a 60% or higher threshold.

**Semester Schedule**

A daily schedule, which includes all student learning outcomes, will be included on each instructor's first day information sheet.

**Hours**

<table>
<thead>
<tr>
<th>Credit</th>
<th>Lecture</th>
<th>Lab</th>
<th>Clinical</th>
<th>Practicum</th>
<th>Experiential</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

All times are **America/Chicago**. The time is **2:00 PM**.