MTH 1352 Section 001: Concepts and Applications

Course Description
Problem-solving and critical-thinking skills applied to the study of a broad range of topics, including number theory, sequences and series, recursion, data analysis, mathematical modeling and algebra, including connections to the grades EC6 classroom.

Course Prerequisites
MTH 1350 (formerly MTH 127) and MTH 1351 (formerly MTH 128)

Class Time and Meeting Place
MTH 1352 Section 001 meets in Math 127 at 2:30-3:45 TR
The class will meet remotely beginning August 24. A re-evaluation will be made on September 28. The Zoom link for the class meeting is on D2L.

COVID-19 MASK POLICY
Masks (cloth face coverings) must be worn over the nose and mouth at all times in this class and appropriate physical distancing must be observed. Students not wearing a mask and/or not observing appropriate physical distancing will be asked to leave the class. All incidents of not wearing a mask and/or not observing appropriate physical distancing will be reported to the Office of Student Rights and Responsibilities. Students who are reported for multiple infractions of not wearing a mask and/or not observing appropriate physical distancing may be subject to disciplinary actions.

Instructor
Stacia Prince
Department of Mathematics and Statistics
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TEL: (936) 468-6262 (while meeting remotely please use email)
Email: princes@sfasu.edu (please use this email as the primary email)
Office Hours:
Tuesday: 9:30am-11:00am; 1:00pm-2:00pm
Wednesday: 4:00pm -5:00pm
Thursday: 11:00am – 12:30p,
All office hours are virtual, email for an appointment

Current Text and Materials
The required textbook for this course is Mathematics for Elementary Teachers, 5th ed., by Sybilla Beckman. You will not need to purchase access to MyMathLab. The textbook is available in hardback (ISBN 9780134392790), loose-leaf (ISBN 9780134423319), or electronic “Ebook” (ISBN 9780134423401) formats. Any format is acceptable. This textbook will also be used in both MATH 1351 and MATH 1352.

Course Goals
• To understand the mathematics essential to successful teaching in the elementary and middle school classroom.
• To acquire a foundation in numeration systems, number theory and properties of the natural numbers, integers, rational, and the real number system; functions and graphs probability; and patterns.
• To gain skill in problem solving and critical thinking.

Student Learning Outcomes (SLO)
At the end of MTH 1352, a student who has studied and learned the material should be able to:

1. Identify the number sets. [SBEC: I]
2. Identify and define recursively and explicitly (when possible) arithmetic and geometric sequences. [SBEC: II, V]
3. Use finite differences to find the closed form rule for sequences defined by a polynomial. [SBEC: II]
4. Use geometric series to find the rational number representation of a repeating decimal. [SBEC: I, II, V]
5. Define relations and represent them in a variety of ways. [SBEC: II]
6. Determine whether a relation satisfies the reflexive, symmetric, and transitive properties. [SBEC: II, V]
7. Define functions and function properties. [SBEC: II]
8. Identify the function families. [SBEC: II]
9. Interpret graphs of functions. [SBEC: II, V]

Program Learning Outcomes
There are no specific program learning outcomes for this major addressed in this course. It is a general education core curriculum course and/or a service course.

Calculators
Although no calculator is required for MATH 1350, a simple four-function calculator might be useful. We encourage you to bring your calculator to class with you every day. However, you should not rely on computers and calculators to such an extent that they keep you from developing your own skills. Technology should be used as an aid, but without a good understanding of the underlying mathematical concepts, the calculator will quite happily mislead you without your even knowing it. In general, technology is a good thing, but as with everything, sometimes too much of a good thing can lead to problems.

Course Requirements
- Three 75 minute exams covering course content, dates listed on the MTH 1352 Course Calendar
- Final Exam date and time are listed on the SFA website. The final exam is comprehensive
- Homework will be collected and returned with feedback. Assigned problems from the textbook can be found on the MTH 1352 Tentative Calendar. The course calendar is on D2L and will be updated as necessary.
- Exam corrections, in which you work any exam questions for which you lost credit. Errors should also be classified according to the instructor’s criteria. These assignments will be returned to you for editing until they are completely correct. Credit for this assignment will not be awarded until all errors are completely corrected. These assignments are classified as “homework” and will not alter exam grades.
- Pedagogical assignments in which we read and respond to articles and/or other materials related to mathematics teaching through in-class discussion, online discussion board posts, or writing assignments
- Reading the textbook is essential to the learning process and is expected
- Attendance and participation in class meetings are expected. During the period of time that we meet remotely we will meet synchronously. Meaning that we will meet at the regularly scheduled meeting time. The class will be recorded and the recording will be posted in D2L. Participation will included not only attendance, but also discussion board posts.
- Use of cell phones in class for any reason other than class work is not permitted and may require completion of additional assignments. See the “Acceptable Student Behavior” section below
- Initiative to seek help outside of class, in the instructor’s office, the AARC, or other means may be necessary in order to be successful
- D2L access. You will be required to access SFA’s Learning Management Software (at http://d2l.sfasu.edu) on a regular basis
- Additional assignments at the instructor’s discretion
- All homework will be uploaded to D2L and feedback will be given through D2L.
- Late work will NOT be accepted. If issues arise during the semester please contact me immediately.
- There is NO extra credit

Course Topics and Percentages (time spent in class)
- Real Number System: 20%
- Algebraic Thinking: 65%
Homework
Homework will also be assigned from our textbook and uploaded to the appropriate dropbox in D2L. Your average is based on your grades from homework from the textbook and any other daily assignments that are assigned for a grade.

Per SFA policy 5.4, your schedule should reflect that there is (1) an amount of student work per credit hour that reasonably approximates not less than one hour of class or direct faculty instruction and two hours of out-of-class student work per week for fifteen weeks over a long semester, or the equivalent amount of work over a different amount of time; or (2) at least an equivalent amount of work as outlined in item 1 above for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

To this end, all students in courses offered by the Department of Mathematics and Statistics that wish to be successful should plan to spend a minimum of two hours outside of class for every credit hour associated with this course. Expected activities to be completed in the time outside of class include reviewing notes from previous class meetings, reading assigned course resources, completing all assigned exercises and projects, and performing periodic assessment preparation.

Grading and Exams
There will be three 75 minute exams during the semester and a 2.5 hour comprehensive final exam. Your course grade will be determined as follows: covering course content, dates listed on the MTH 1352 Course Calendar

The Final Grade will be determined by the scale:
100%-90% A, 89%-80% B, 79%-70% C, 69%-60% D, and 59% and below is an F.

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<thead>
<tr>
<th>Component</th>
<th>Date</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>Class assignments due according to dates provided on the MTH 1352 Course Calendar in D2L</td>
<td>20%</td>
</tr>
<tr>
<td>Exam I</td>
<td>Date provided on the MTH 1352 Course Calendar in D2L</td>
<td>20%</td>
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<tr>
<td>Exam II</td>
<td>Date provided on the MTH 1352 Course Calendar in D2L</td>
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<tr>
<td>Exam III</td>
<td>Date provided on the MTH 1352 Course Calendar in D2L</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>Final Exam (Comprehensive)</td>
<td>20%</td>
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Semester numerical scores will be converted into letter grades according to the following method.

<table>
<thead>
<tr>
<th>Range of numerical values</th>
<th>Corresponding Letter</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>80-89</td>
<td>B</td>
</tr>
<tr>
<td>70-79</td>
<td>C</td>
</tr>
<tr>
<td>60-69</td>
<td>D</td>
</tr>
<tr>
<td>0-59</td>
<td>F</td>
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</tbody>
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When we calculate your final grade at the end of the course, we will calculate a score on a 0-100 point scale using the scores that you have obtained during the course, and the grade breakdown given above. Your course grade will then be obtained using this table.

Writing Assignments
In this course, you will be expected to complete some short writing assignments on topics that are in the intersection of mathematical content and mathematics teaching. Although these papers are short, they will be graded for content, organization, and format just as a longer paper in a humanities or social science class would be graded. A rubric will be provided. Please ask the instructor if you are unclear about the expectations for writing assignments.

In particular, all writing assignments ask you to elaborate on the question that was asked. Please do not merely cut-and-paste lists of standards or provide a summary of the content of a video clip. Add your own thoughts, and connect the question to the mathematical content we have covered in class.
Exam Policy
Exams are scheduled far in advance, and it is impossible to move the time or date. However, in rare cases where it is impossible for an individual to take the exam at the scheduled time, we will work with you to make other arrangements. Exceptions for taking the exam out of sequence are the following:

1. A medical excuse. Please provide proper documentation according to university rules.
2. A University sponsored event such as an athletic tournament, a play, or a musical performance. Your coach or director must contact us in advance. Athletic practices and rehearsals do not fall into this category.
3. A religious holiday. Please send a short email explaining the situation.
4. Extreme hardship such as a family emergency. Please have the university office of student rights and responsibilities notify us.

The above are the only allowable excuses for taking the exam before the scheduled time. Under no circumstances do we give late exams. Since we can only accommodate a limited number of students taking the exam at an earlier time, please make sure that you fall into one of the above categories before you contact us. If you miss an exam due to illness or a family emergency, you will not be penalized. The missed exam will be replaced with the final exam grade. If you have a conflict with the final exam (other than another exam at the same time), you must contact the Registrar. Only the Registrar can schedule an out-of-sequence final exam.

The Classroom
Any questions you ask in class will likely be ones that other students will want answered as well, so get over any hesitation you might have and ask questions as the material is presented. You will not be penalized for doing this, no matter how trivial or simple you think your questions might seem. Remember, the class is being held for you to learn the material, not just to give you a time to copy notes off of a blackboard, so be sure to get help when you need it and stay involved in your class.

Please be respectful of your fellow students and your instructor. Cell phone use and texting are not allowed in class. Remember to turn your cell phone off or place it in quiet mode before entering the classroom.

Expected Student Behavior
• CELL PHONES are not permitted in this class. DO NOT use your cell phone in class. There should be no cell phones in my, or your, sight during class. Using or monitoring a cell phone during class distracts you and keeps you from learning. Phones should be set to silent (not vibrate) mode and put away during class time. You may NOT use your cell phone as a clock or calculator on exams.
• I will send e-mail to the entire class during the course. Check your SFA e-mail address or have SFA forward your email to an account you check at least daily.
• Any disrespectful or disruptive behavior – including, but not limited to: sleeping, reading, side discussions, overt disruptions, name calling, harassing behaviors, etc - will result in your dismissal from the class, and may result in a referral to the appropriate university office.
• The instructor reserves the right to amend these rules as necessary throughout the term.
• Acceptable Student Behavior (University Policy)
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1 http://www.sfasu.edu/policies/student_conduct_code.asp). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

Attendance Policy
Regular attendance is expected in Math 127. Attendance and Excused Absences Policy can be found at http://www.sfasu.edu/policies/class_attendance_excused_abs.asp

Add/Drop Policy
The Add/Drop Policy can be found at http://www.sfasu.edu/policies/add_drop.asp
**Academic Integrity (Policy A-9.1)**

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

The penalty for a student found cheating on any part of an assignment, quiz, or exam in this class will range from a grade of zero on the work to a grade of F in the course, and may result in additional, more severe disciplinary measures. A student who allows another to copy his work and the student copying the work are both guilty of cheating. Do your own work. Do not show your completed work to others. Do not allow others to copy your work.

**Definition of Academic Dishonesty**

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at [http://www.sfasu.edu/policies/academic_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp).

**Withheld Grades Semester Grades Policy (A-54)**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

**Students with Disabilities**

To obtain disability-related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to [http://www.sfasu.edu/disabilityservices](http://www.sfasu.edu/disabilityservices).

**Acceptable Student Behavior (University Policy)**

Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1 [http://www.sfasu.edu/policies/student_conduct_code.asp](http://www.sfasu.edu/policies/student_conduct_code.asp)). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

See [http://www2.sfasu.edu/math/docs/syllabi/MTH129Syllabus.pdf](http://www2.sfasu.edu/math/docs/syllabi/MTH129Syllabus.pdf) for elements common to all sections.