MATH 0200.104 Brief Developmental Mathematics
Department of Mathematics
Fall 2019

A. COURSE INFORMATION

Course number/section: MATH 0200.104
Class meeting times: Wednesdays 9-9:50 am and Fridays 9-9:50
Class location: Wednesdays in ECDC 219C and Fridays CCH 207
Course Website: bb9.tamucc.edu

B. INSTRUCTOR INFORMATION

Instructor: T. Friedrichs
Office location: CI 314
Office hours: by appointment or see me in CCH 207 (Wed 10-11 or Fri 8-9)
Telephone: NA
e-mail: terry.friedrichs@tamucc.edu
Appointments: Email if you would like to make an appointment

C. COURSE DESCRIPTION

Catalog Course Description

Brief Developmental Mathematics (2 semester hours). Topics as in MATH 0300. For students who have completed most topics in MATH 0300. (Not counted toward graduation)

Extended Course Description

This course is paired with MATH 1314.N10, N.11, N.13, or N.14. You must be enrolled in one of the MATH 1314 sections in order to be in this class.

D. PREREQUISITES AND COREQUISITES

Prerequisites
You must have a TSI score of 341 – 349 to enroll in this class.

Corequisites
This course is paired with MATH 1314.N10, MATH 1314.N.11, MATH 1314. N.13, or MATH1314.N.14. You must be enrolled in one of the listed MATH 1314 sections in order to be in this class. You are expected to attend the weekly supplemental instruction sessions.

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook(s)
Knewton Access code ($35 for 2 years online, approximately $40 at bookstore), pencils, erasers, dedicated notebook, and a scientific calculator.
College Algebra by OpenSTAX is a free textbook that is embedded into Blackboard. You are expected to read and annotate as needed.

A TI-83/ TI-84 plus or INSPIRE calculator MAY NOT be used at anytime. Cell phones may not be used as calculators.

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

Student Learning Outcomes

By the end of this course, students should be able to:

1) Perform computation of real numbers
2) Solve linear equations and inequalities
3) Simplify rational, exponents and radicals, quadratic expressions
4) Graph linear and quadratic functions
5) Solve applications involving geometry and quadratic functions

G. INSTRUCTIONAL METHODS AND ACTIVITIES

The instructional method is a combination of lectures and students activities. Students will be shown models of solutions and will work independently or in groups to demonstrate mastery. Students will use Knewton Learning independently to complete learning assignments. At the end of the semester, students will show competency by passing all assignments, tests and the final exam with an overall score of 70% or better.

H. MAJOR COURSE REQUIREMENTS AND GRADING

Student learning outcomes (described in Section F) will be measured via progress on homework, quizzes, exams, and final exam. Every homework problem can be worked multiple times until a correct answer is achieved. Exams will be administered in MATH 0200, or in MATH 1314. The final exam is comprehensive and is written by the Mathematics and Statistics Department. All students will take a common final exam. No formula sheets will be provided for any tests, quizzes, or final.
If you pass MATH 0200 with a 70% or above, you will have your TSI liability removed and be deemed college math ready.

If you pass both MATH 0200 AND MATH 1314 with a 70% or above, you will have completed your first college level math class.

I. COURSE CONTENT/SCHEDULE

Since this class is paired with MATH 1314, the schedule from MATH 1314 will be followed. Just-in-time support will be offered for any of the topics listed.

MATH 1314/0200 FALL 2019

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Class Topics</th>
</tr>
</thead>
</table>
| 1    | 8/26-8/30 | Introduction to Integers and absolute values  
Operations with Fractions  
Identify coefficients and combine like terms  
The distributive property  
Simplify expressions by combining multiple properties  
Solving Linear Equations in one variable  
Solve equations using the addition and multiplication properties  
Solve linear equations with one variable  
Solve linear equations with variables on both sides |
| 2    | 9/3-9/6  | Solve linear equations with fractions  
Rewrite English phrases into algebraic statements  
Word Problems with linear equations  
Express an inequality in interval notation  
Linear Inequalities  
Absolute Value Equations  
Absolute Value Inequalities  
Solving a System of Linear Inequalities  
Determine the number of solutions to a linear system |
| 3    | 9/9-9/13 | Cartesian Coordinates and Distances  
Plot points on a Cartesian Coordinate System  
Distance and Midpoint Formulas |

EXAM 1
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics</th>
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<tbody>
<tr>
<td>4</td>
<td>9/16-9/20</td>
<td>Graph a line given its equation using its slope and y-intercept</td>
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<td>Graph a line given a point and its slope</td>
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<td>Graph vertical and horizontal lines</td>
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<td>Parallel and Perpendicular lines</td>
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<td></td>
<td></td>
<td>Find linear equations</td>
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<td></td>
<td></td>
<td>Introduction to Complex Numbers</td>
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<td></td>
<td></td>
<td>Multiplying, Dividing Complex numbers and simplifying powers of i</td>
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<tr>
<td>5</td>
<td>9/23-9/27</td>
<td>Product Property of Exponents</td>
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<td>Quotient Property of Exponents</td>
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<td></td>
<td>Introduction to Polynomials</td>
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<td>Operations on Polynomials</td>
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<td><strong>EXAM 2</strong></td>
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<td>Find the Greatest Common Factors of 2 or more terms</td>
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<td>Find the Greatest Common Factor from a Polynomial</td>
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<td>Factor trinomials with a coefficient of 1</td>
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<td>6</td>
<td>9/30-10/4</td>
<td>Factor trinomials with the ac method</td>
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<td>Factor quadratics with special products</td>
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<td>Factor quadratics</td>
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<td>Choosing a Factoring Strategy</td>
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<td>Factor Cubes</td>
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<td>Solve a Quadratic Equations using the zero product property</td>
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<td>Solve Quadratic Equations by Factoring</td>
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<td>Equations Quadratic in Form</td>
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<td></td>
<td>Solving Quadratic Equations in Form</td>
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<td></td>
<td>Simplify a Rational Expression</td>
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<td>Multiply and Divide a Rational Expression</td>
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<td>7</td>
<td>10/7-10/11</td>
<td>Add, Subtract Rational Expressions and Simplify Complex Fractions</td>
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<td>Solve Rational Equations</td>
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<td>Solve Rational and Quadratic Inequalities</td>
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<td>Square Roots and the Real Number System</td>
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<td>Simplify Radicals</td>
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<td>Use polynomial multiplication to multiply square roots</td>
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<td></td>
<td>Add and Subtract Square Root Expressions</td>
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<td>Operations with Radicals</td>
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<tr>
<td>8</td>
<td>10/14-</td>
<td>Solve a square root equation with a single radical</td>
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<tr>
<td>Date</td>
<td>Sections</td>
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</tbody>
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| 10/18      | Solve Radical Equations  
Rational Exponents and Higher Ordered Radicals  
Simplifying Higher Roots and Operations on Higher Roots  
Complete the Square  
Solving Quadratic Equations by Completing the Square  
Graphing Circles  
Quadratic Formula  
Solving Quadratic Equations using the Quadratic Formula |
| 10/21-10/25| Relations and Functions  
Domain and Range of Functions  
Evaluate a function using function notation  
Interpretations of Linear Functions  
Combinations of Functions  
Difference Quotient  
Evaluate Composition of Functions  
One to One functions  
Inverse Functions Values  
Finding Inverse Functions |
| 10/28-11/1 | Exponential Function Graphs  
Logarithmic Function Graphs  
Evaluate and write Exponential Functions  
Evaluate Logarithmic Expressions  
Relate Logarithms and Exponents  
Basic Properties of Logarithms  
Rewrite Logarithmic Expressions using the Properties |
| 11/4-11/8  | Solve Exponential Equations  
Solve Logarithmic Equations  
Applications of Logarithmic and Exponential Equations |
| 11/11-11/15| Toolkit Functions  
Graphical Properties of Functions  
Name that Function  
Graph a parabola by plotting points and determine which way the graph opens  
Graphs of Quadratic Functions  
Characteristics of Parabolas  
Applications of Quadratic Functions |
| 11/18-11/22| Graph Absolute Value Functions  
Transformation of Functions - stretching, compressing, reflecting |
Translating of Functions
Piecewise Functions
Write and Graph Polynomial Functions

| 14 | 11/25-11/26 | Local Behavior of Polynomial Functions
Rational Zeros of a Polynomial Function
Divide a polynomial by a binomial by long division
Synthetic Division |

| 15 | 12/2-12/4 | Asymptotic Behavior of Rational Functions
Graphs and Applications of Rational Functions |

**EXAM 5**

12/5
12/7 (Saturday)

Final Review

**Common MATH 1314 Final - 12:00 – 2:30 PM location to be announced**

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

### J. COURSE POLICIES

**Attendance/Tardiness**
Attendance will be taken each class. Talking during class time and tardiness are often disruptive to the whole class and are not appreciated. If you are delayed and arrive late please do so quietly. Excessive tardiness, disruptive talking, disruptive behavior or performing activities not related to the class will be counted as absences. The instructor is NOT responsible for informing absent students what was covered in previous classes, homework or any other announcements.

**Extra Credit**
Your MATH 0200 grade counts up to 5% extra credit for MATH 1314. Supplemental Instruction sessions may count up to 5% extra credit for MATH 0200.

**Cell Phone Use**
Use of cell phone is prohibited in all circumstances. Students using their cell phones in class will be asked to leave the class and will be counted as absent for that day.

**Laptop/Tablet Use**
Students are allowed to use their laptops/tablets in class only if it is intended for learning purposes like logging into the class blackboard page.

**Missed Exam**
There will be no makeup for a missed semester exam, unless for special circumstances. NO late homework will be accepted.
There will be no makeup for a missed final exam. Final exam must be taken per schedule.
Participation
Students are required to participate in class discussions and problem solving. Students who are absent will not receive credit for participation.

Other Class Policies
1. Students are expected to print the class notes in Blackboard, view videos and other multimedia available, and work assignments before the due dates.

2. Knewton Learning is assigned online regularly through Blackboard, and is due as specified. If you have problems accessing the system you have to let me know as soon as possible.

3. Five semester exams will be administered during class times, or in MATH 1314. The dates will be announced in class. These dates may be changed with due notice announced during class time. Bring your own calculators. Calculators cannot be shared. Cell phones cannot be used as calculators.

4. The final exam will be comprehensive covering all material covered during the semester.

K. RESPONSIBILITES

1. You are responsible for the information contained in the university ACADEMIC CALENDAR – 2019.

2. You are responsible for contacting me, if you encounter problems or have concerns about this class.

3. You are responsible for seeking help from the Center for Academic Student Achievement, a private tutor, coming to my office hours, or attending a student study group; if you have difficulty with a skill and/or concept.

4. You are expected to comply with the rules in the Student Handbook and Student Code of Conduct, as well as the processes in the latter, which are administered by the Office of Student Affairs. The Student Handbook and Student Code of Conduct are accessible at http://judicialaffairs.tamucc.edu/studentcofc.html.

L. COLLEGE AND UNIVERSITY POLICIES

1. Academic Integrity (University)

University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. Plagiarism is the
presentation of the work of another as one’s own work. In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

2. Classroom/Professional Behavior

Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the student code of conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the student code of conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

3. Student of Civility

Texas A&M University Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

4. Deadline for Dropping a Course with a Grade of W (University)

Deadline for Dropping a Course with a Grade of W (University). I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar for the last day to drop a course. [http://www.tamucc.edu/academics/calendar/](http://www.tamucc.edu/academics/calendar/).

5. Grade Appeals (College of Science and Engineering)

As stated in university procedure 13.02.99.C2.01, Student grade appeal procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the
final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://studentaffairs.tamucc.edu/student_grade_appeal_procedure.pdf, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

6. Disability Services

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other thing, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816. https://disabilityservices.tamucc.edu/

7. Statement of Academic Continuity

In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University-Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

M. OTHER INFORMATION

Academic Advising
The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up
a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule and appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

**N. GENERAL DISCLAIMER**

The instructor reserves the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. The instructor will announce such changes in a timely manner during regularly scheduled lecture periods.

**O. FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)**

Under FERPA, a student has the right to:

1. Inspect and review their education records
   Students can inspect and review their education records within 45 days of the day the University receives a request for access. A student should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. Request to amend their education records
   Students can request to amend any of their education records that they believe are inaccurate, misleading, or otherwise in violation of the student’s privacy rights under FERPA. A student who wishes to ask the University to amend a record should write the University official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and the student’s right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. Some control over the disclosure of their education records
   Students have the right to provide written consent before the University discloses personally identifiable information from their education records, except to the extent that FERPA authorizes disclosure without consent. The University discloses education records without a student’s prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or
research, or support staff position (including law enforcement unit personnel and health staff).

A person or company with whom the University has contracted as its agent to provide a service instead of using University employees or officials (such as an attorney, auditor, or collection agent).

A person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University.

Upon request, the University also discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. File a complaint if they feel any of these rights have been violated

Students can file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5901

P. STARFISH EARLY ALERT

The Center for Academic Student Achievement is hosting Starfish, an Early Alert software program for identifying undergraduate students who need assistance from academic support services at Texas A&M University Corpus Christi. The Early Alert program offers convenient early warning identification capabilities and connects students to a collaborative “Success Network” of faculty, advisors, and specialized support staff to address students’ needs and inquiries in real time.

The Early Alert program allows faculty and staff to identify the academic needs of TAMUCC’s undergraduate students at any point during the academic term. Starfish provides early alerts, or “flags”, when raised by faculty or staff; generate emails notifying the student, and members of the student’s “Success Network” of course progress and academic concerns needing to be addressed.
Students can actively engage with members of their “Success Network” at any time. Early Alerts raised for students, however, will elicit an Early Alert response originating from CASA, supplemented by Academic Advising, and may include additional support from campus programs including Student Engagement and Success, Enrollment Management, PASS, and other academic support programs from TAMUCC.

Starting Spring 2014, all Pre-1000, 1000, and 2000 level courses at TAMUCC will be supported by the Early Alert program through the implementation of progress reports. Progress report will help to identify students’ academic needs, including:

- Poor class attendance
- Low class participation
- Low test or quiz scores
- Missing or incomplete work
- Midterm grade below a C
- In danger of Failing

Starfish Connect facilitates meaningful contact between students and their instructors, advisors, and mentors. The system encourages students to engage more deeply in their academic lives by connecting students to the people and resources in place to help student succeed. Students can access Starfish by logging into Blackboard (bb9.tamucc.edu), and selecting the Starfish Button within Blackboard’s Tools.

Q. IMPORTANT DATES

Fall 2019 Important Deadlines/Holidays:

Important dates:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
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<tbody>
<tr>
<td>August 26</td>
<td>First Day of Classes</td>
</tr>
<tr>
<td>September 2</td>
<td>Labor Day No Classes</td>
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<tr>
<td>September 3</td>
<td>Last day to late register or add a class</td>
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<tr>
<td>October 16 – 30</td>
<td>Midterm Grading</td>
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<tr>
<td>November 8</td>
<td>Last day to drop a class</td>
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<tr>
<td>November 27</td>
<td>Reading Day No Class</td>
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<tr>
<td>November 28 – 29</td>
<td>Thanksgiving Holidays No Class</td>
</tr>
<tr>
<td>December 3</td>
<td>Last Day to withdraw from the University</td>
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<tr>
<td>December 4</td>
<td>Last Day of Classes</td>
</tr>
<tr>
<td>December 5</td>
<td>Reading Day</td>
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<tr>
<td><strong>December 7 (Saturday)</strong></td>
<td>Common Final</td>
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This syllabus and schedule may be changed at any time by verbal announcement. Attend class every day to be aware of any changes.