**COURSE POLICY**

Discovering Mathematics I · Fall 2015
Thursday · 9:30-10:30am · Whittemore Hall 300

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**MATH 2984 · CRN 88594**

**Instructor** Jessica Hurdus  
**Email** jmhurdus@vt.edu  
**Phone** (540) 231-5162  
**Office** 447 McBryde Hall  
**Office Hours** MW 2-3pm; TR 1:30-2:30pm  
**Other hours by appointment.**  
**Homepage** [www.math.vt.edu/people/jmhurdus](http://www.math.vt.edu/people/jmhurdus)

**Peer Mentors**  
John Burleson jtburly@vt.edu  
Lizzy Fort fortea@vt.edu  
Alina Kramer alinak@vt.edu  
Zach Moser zachm14@vt.edu  
Parisa Samareh psamareh@vt.edu  
Ben Wiles benw94@vt.edu  
William Winter wwinter@vt.edu  
Office Hours T 4-5pm; W 3-5pm  
McBryde 334

**CMDA 2984 · CRN 83979**

**Instructor** Timothy Warburton  
**Email** tim.warburton@vt.edu  
**Phone** (540) 231-8274  
**Office** 476 McBryde Hall  
**Office Hours** TR 1pm-2pm  
**Other hours by appointment.**  
**Homepage** [www.math.vt.edu/people/tcew](http://www.math.vt.edu/people/tcew)

**Peer Mentors**  
Thomas Meyer thomasbm@vt.edu  
Katherine Burke ksb2017@vt.edu  
Office Hours T 4-5pm; W 3-5pm  
McBryde 334

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**Prerequisite:** None. This course is intended for first-year math and CMDA majors.

**Required Materials**
- *The Heart and the Fist* by Eric Greitens (University Common Book)
- *How to Study as a Mathematics Major* by Laura Alcock
- A laptop computer
- \LaTeX

Instructions to install \LaTeX are posted on Scholar. If you have any trouble with installation, you can get help during any of the office hours listed above.

Additionally, you will be required to bring your laptop to every class unless noted otherwise. If you don’t own a laptop, speak with an instructor about this by Friday, August 28.

**Class Communication and Scholar** [https://scholar.vt.edu](https://scholar.vt.edu)

The course policy, class announcements, individual assignment grades, and other materials essential to this course can be found on our class Scholar site. Students are responsible for all information delivered via Scholar or email. Students are also responsible for course materials and announcements covered in class. IMPORTANT: Because our course meets only once each week, there will likely be more announcements made through Scholar than in your other courses. Announcements posted on Scholar will always be emailed to you, so it is absolutely essential that you check Scholar announcements or read the associated emails.
Course Description
This course is classified as a First Year Experience course. The year-long course focuses on exposing first-year math majors to the scope and applicability of mathematics and its many sub-disciplines, while providing an environment to promote networking and community building amongst fellow math majors. In the first semester of this course, math and CMDA majors will be introduced to the process of thinking and learning as a mathematician. Various questions will be addressed throughout the semester such as: What is problem solving within the discipline of mathematics? How is mathematics professionally typeset? What are the career options for someone with a mathematics degree? How is mathematics communicated?

Learning Objectives
The three learning objectives of all First Year Experience courses are problem solving, integration, and inquiry. Within the context of our year-long course, these learning objective are:

- Problem Solving – The ability to design, evaluate, and implement a strategy or strategies to answer an open-ended mathematical question or to achieve a desired goal. (Objective for both semesters of the course.)

- Integration – \( \int x^2 \ln(3x) \, dx \) ... just kidding! Integration is the ability and disposition to make connections between mathematical ideas and experiences and apply them to new learning situations. (Objective for the second semester of the course.)

- Inquiry – The ability to explore mathematical issues or topics through the ethical and responsible collection, analysis, and use of information as evidence that results in informed conclusions. (Objective for the second semester of the course.)

Grading
This course is graded Pass/Fail. In order to receive a grade of “Pass”, you must complete all three mandatory assignments and receive at least 70% of the total points in the course. The course points will be comprised of attendance points, several in-class assignments, at most two homework assignments, and the three mandatory assignments.

Attendance: Attendance will be taken each class and will count toward your total points for the course. Six attendance points will be awarded for arriving to class on time. Five attendance points will be awarded for arriving to class between 9:31-9:40, four attendance points for arriving to class between 9:41-9:50, etc. An unexcused absence will result in zero attendance points for that class. Arrival times will be noted on your peer mentor’s attendance sheet (which means your attendance is only counted once you have signed the attendance sheet).

In the event that a class is missed for reasons that are serious, unavoidable, and beyond the student’s control, the situation will be handled on an individual basis. Excused absences generally will be considered only if your instructor is notified prior to the missed class (if this is possible) and if proper documentation is provided within one week of the missed class.

In-class assignments: There will be several in-class assignments throughout the semester worth varying points. An unexcused absence will result in zero points on an in-class assignment (in addition to zero attendance points).
Out-of-class assignments: These include at most two homework assignments and the three mandatory assignments. The mandatory assignments are:

1. Gobblerfest/Education Abroad/Majors Fair Assignment, due October 1
2. Career Fair Assignment, due November 5
3. Math Talk Assignment, due November 19

Late Submissions of out-of-class assignments: The following table indicates the penalties for late submission of out-of-class assignments.

<table>
<thead>
<tr>
<th>When Assignment is Submitted</th>
<th>Penalty</th>
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<tbody>
<tr>
<td>Before deadline</td>
<td>No penalty</td>
</tr>
<tr>
<td>Late, between 1 minute and 24 hours</td>
<td>10% penalty</td>
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<tr>
<td>Late, between 24 hours and 36 hours</td>
<td>50% penalty</td>
</tr>
<tr>
<td>Late, more than 36 hours</td>
<td>No credit</td>
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Appeals: Specific grading disputes (points totaled incorrectly, partial credit appeals, missing assignments on Scholar, etc.) must be brought to your instructor’s attention within one week of return of the assignment. Appeals outside of this time frame will not be considered.

Virginia Tech Honor Code
All students are expected to abide by the Virginia Tech Honor Code. A student who has doubts about how the Honor Code applies to any assignment is responsible for obtaining specific guidance from the instructor before submitting the assignment for evaluation. All assignments submitted are considered “graded work” and all aspects of your coursework are covered by the honor system. All assignments are to be completed individually unless otherwise specified. Honesty in your academic work will develop into professional integrity.

Violations of the Honor Code include, but are not limited to, the following:

1. Cheating – Cheating includes the actual giving or receiving of any unauthorized aid or assistance or the actual giving or receiving of any unfair advantage on any form of academic work, or attempts thereof.
2. Plagiarism – Plagiarism includes the copying of the language, structure, ideas and/or thoughts of another and passing off same as one’s own, original work, or attempts thereof.
3. Falsification – Falsification includes the statement of any untruth, either verbally or in writing, with respect to any circumstances relevant to one’s academic work, or attempts thereof. Such acts include, but are not limited to, the forgery of official signatures, tampering with official records, fraudulently adding or deleting information on academic documents such as add/drop requests, or fraudulently changing an examination or other academic work after the testing period or due date of the assignment.

Accommodations
If you need adaptations or accommodations because of a documented disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment with your instructor as soon as possible.
## Tentative Course Schedule and Important Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Guest Speaker/Notes</th>
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<tbody>
<tr>
<td>Aug 27</td>
<td>Course Policy, Meet &amp; Greet, and Problem Solving in Mathematics</td>
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<tr>
<td>Sep 3</td>
<td>Some Math History (MATH majors) CMDA Background (CMDA majors)</td>
<td>Math: Heath Hart, Advanced Instructor CMDA: Meet in McBryde 455</td>
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<td>Sep 10</td>
<td>Why Study Calculus? and Applied Computational Option Snapshot</td>
<td>Dr. Mark Embree</td>
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<td>Sep 17</td>
<td>Writing Mathematics and Planning for Next Semester</td>
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<td>Sep 24</td>
<td>The Circle-Dot System</td>
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<td>Oct 1</td>
<td>Mathematical Communication and Math Education Option Snapshot</td>
<td>Dr. Estrella Johnson</td>
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<td>Oct 8</td>
<td>\LaTeX</td>
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<td>Oct 15</td>
<td>\LaTeX</td>
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<td>Oct 22</td>
<td>Advising Notes, Peer Mentor Sessions, and Traditional Option Snapshot</td>
<td>Dr. Robert Rogers</td>
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<td>Oct 29</td>
<td>Puzzles</td>
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<td>Nov 5</td>
<td>The Game of Nim and Applied Discrete Option Snapshot</td>
<td>Dr. Ezra Brown</td>
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<td>Nov 12</td>
<td>Careers in Mathematics</td>
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<td>Nov 19</td>
<td>Open Problems in Math</td>
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<td>THANKSGIVING BREAK</td>
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<td>Dec 3</td>
<td>No class meeting. Day off for out-of-class time required for mandatory assignments.</td>
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### Important Dates for Mandatory Assignments

Gobblerfest/Education Abroad/Majors Fair Assignment, due October 1
Gobblerfest: Friday, September 4; 4-8pm; Drillfield
Education Abroad Fair: Wednesday, September 23; 10am-4pm, Drillfield
Majors Fair: Wednesday, September 30; 10am-3pm; Squires Commonwealth Ballroom

Career Fair Assignment, due November 5
Engineering Expo: Tuesday-Wednesday, September 15-16
Business Horizons Career Fair: Thursday, September 17
Fall Connections Job Fair: Tuesday, October 20 (**Recommended**)
Myers-Lawson School of Construction Fall Career Fair: Tuesday, October 20
Fall Civil and Environmental Engineering Career Fair: Tuesday, October 27
College of Natural Resources & Environment Career Fair: Wednesday, November 4
Note: Some fairs require pre-registration and/or have restrictions on who can attend. See information posted at [https://www.career.vt.edu/Fairs/JobCareerFairs.html](https://www.career.vt.edu/Fairs/JobCareerFairs.html).

Math Talk Assignment, due November 19
Information on upcoming math talks will be posted on Scholar.