

**Foundations of Mathematics**  
MHF 4203/5207 Section: 18133/18134  
**Class Periods:** MWF, 6, 12:50—1:40  
**Location:** Little 223  
**Academic Term:** Spring 2020

**Instructor:**

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(352) 294-2350

Office Hours: M7, W4, F3 or by appointment, Little Hall 310

**Course Description**

MHF 4102: Models and proofs. Foundations of real and natural numbers, algorithms, Turing machines, undecidability and independence. Examples and applications in algebra, analysis, geometry and topology. Credit will be given for, at most, MHF 4203 or MHF 5207.

MHF 5207: Languages, models, and theories; Godel's completeness and incompleteness theorems; formal number theory and axiomatic set theory; applications to other areas of mathematics.

**Course Pre-Requisites / Co-Requisites**

MAS 4105 with a minimum grade of C (for MHF 4102).

**Course Objectives**

Students who successfully complete the course will be able to understand and apply basic concepts of logic and computability. They will be able to read, write and present theorems and proofs in higher mathematics.

**Required Textbooks and Software**

- Foundations of Mathematics, notes developed by the instructor, forthcoming book.
- D. Cenzer, J. Larson, C. Porter, J. Zapletal

**Attendance Policy, Class Expectations, and Make-Up Policy**

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies which can be found at

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Excused absences must be consistent with university policies in the Graduate Catalog

(<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>) and require appropriate documentation.

**Evaluation of Grades**

Grades will be based on written homework problems and daily attendance.

There will be about 6 homework assignments, worth 20 points each, with the best 5 scores counted.

**Grading Policy**

Points	Grade	Grade Points
90 - 100	A	4.00
85 - 89	A-	3.67
80 - 84	B+	3.33
75 - 79	B	3.00
71 - 74	B-	2.67
67 - 70.	C+	2.33
60 - 66	C	2.00

More information on UF grading policy may be found at:

<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>

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### ***Accessibility***

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting [disability.ufl.edu/students/get-started](https://disability.ufl.edu/students/get-started). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

### ***Course Evaluation***

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

### ***University Honesty Policy***

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### ***Software Use***

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

### ***Student Privacy***

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

### ***Campus Resources:***

#### ***Health and Wellness***

##### **U Matter, We Care:**

If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575 so that a team member can reach out to the student.

**Counseling and Wellness Center:** <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

##### **Sexual Assault Recovery Services (SARS)**

Student Health Care Center, 392-1161.

**University Police Department** at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

### Academic Resources

**E-learning technical support**, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.  
<https://lss.at.ufl.edu/help.shtml>.

**Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

**Library Support**, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.  
<https://teachingcenter.ufl.edu/>.

**Writing Studio, 302 Tigert Hall**, 846-1138. Help brainstorming, formatting, and writing papers.  
<https://writing.ufl.edu/writing-studio/>.

**Student Complaints Campus**: [https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf).

**On-Line Students Complaints**: <http://www.distance.ufl.edu/student-complaint-process>.