COURSE DETAILS.

Instructor: Jason Rute  
Email: jmr71@math.psu.edu  
Office: 421 McAllister Building  
Office Hours: T 1:00 - 2:00 pm, R 2:00 - 3:00 pm, and by appointment  
Lecture Times: MWF 10:10–11:00am  
Lecture Location: 106 Osmond Lab  
Textbook errata: [www.math.ucla.edu/~hbe/amil/errata2.html](http://www.math.ucla.edu/~hbe/amil/errata2.html)  
Course Website: [www.personal.psu.edu/jmr71/teaching/Spring-2016-Math-457/](http://www.personal.psu.edu/jmr71/teaching/Spring-2016-Math-457/)  
Grades: cms.psu.edu (ANGEL)

COURSE OBJECTIVES. This is an introductory course in mathematical logic. Topics covered include sentential (propositional) logic, first order logic, consistency, satisfiability, soundness, completeness, and compactness. If time allows, the following topics may also be covered: set theory, computability and decidability, Peano arithmetic, Gödel’s incompleteness theorems, and the incomputability of the halting problem. By the end of the course, you will be familiar with the above topics, know their proofs, and be able to prove related results found on the homework and examinations.

GRADES. Your final grade will be determined by homework (25%), two midterm examinations (15% for the lower scoring midterm, 25% for the other), and a final examination (35%). Final grades will be determined using the following grading scale (which may be adjusted—in your favor—at the end of the semester if necessary).

<table>
<thead>
<tr>
<th>Grade</th>
<th>%-score</th>
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<tbody>
<tr>
<td>A, A-</td>
<td>90-100</td>
</tr>
<tr>
<td>B+, B, B-</td>
<td>80-89</td>
</tr>
<tr>
<td>C+, C</td>
<td>70-79</td>
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<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>0-59</td>
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HOMEWORK. Homework problems from the textbook will be collected about once a week. You are encouraged to discuss homework problems with other students, however your write-up must be your own. You cannot look at another student’s writeup. Homework is expected to be professional looking. Late homework will be accepted, but with a small point deduction.

EXAMINATIONS. There will be two in class midterm examinations (the dates are to be determined), and one comprehensive final exam given during final exam period. NO books, notes, or electronic devices may be used on the exams.

ACADEMIC INTEGRITY STATEMENT. The University’s Code of Conduct states that all students should act with personal integrity, respect other students’ dignity, rights and property, and help create and maintain an environment in which all can succeed through the fruits of their efforts. Academic integrity includes a commitment not to engage in or tolerate acts of falsification, misrepresentation or deception. Such acts of dishonesty violate the fundamental ethical principles of the University community and compromise the worth of work completed by others. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, [...], facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with academic work of other students. [...]

DISABILITY SERVICES. Penn State welcomes students with disabilities into the University’s educational programs. If you have a disability-related need for reasonable academic adjustments in this course, contact the Office for Disability Services (ODS) at 814-863-1807 (V/TTY). For further information regarding ODS, please visit the Office for Disability Services web site at http://equity.psu.edu/ods/. In order to receive consideration for course accommodations, you must contact ODS and provide documentation (see the documentation guidelines at http://equity.psu.edu/ods/guidelines/documentation-guidelines). If the documentation supports the need for academic adjustments, ODS will provide a letter identifying appropriate academic adjustments. Please share this letter and discuss the adjustments with your instructor as early in the course as possible. You must contact ODS and request academic adjustment letters at the beginning of each semester.