

Text: Mathematical Excursions

Author: Smith/Grassi

Office Hours: Tues. 11:00 a.m. – 12:10 p.m., 2:15 p.m. – 3:45 p.m.  
 Thurs. 11:00 a.m. – 12:10 p.m.  
 Wed. or Fri., by appointment

Office: Room 101F Adams Hall

Office phone no.: 516-463-5578

Web Site: [http://people.hofstra.edu/faculty/peter\\_m\\_grassi](http://people.hofstra.edu/faculty/peter_m_grassi)e-mail: [matpmg@hofstra.edu](mailto:matpmg@hofstra.edu)*Learning Goal:* Students will apply analytical reasoning across academic disciplines.

- Apply quantitative, inductive, and deductive reasoning.
- Apply abstract thinking and conceptual modeling.

*Disabilities Policy*

If you have any concerns regarding a physical, psychological and/or learning disability that may have an impact upon your performance in this course, appropriate accommodations can be made on an individualized, as-needed basis after the needs, circumstances and documentation have been evaluated by the appropriate office on campus.

The Office of Services for Students with Disabilities is located in 212 Memorial Hall. Telephone: 516-463-7074. Please see the Hofstra Guide to Pride, or see their site: <http://www.hofstra.edu/StudentAffairs/stdtis/index.html> .

Outline : There will be 3 in-class exams and a final exam. The tentative dates for these exams are: Sept. 29, Nov. 3, and Dec. 3. The Final Exam is Tuesday, Dec. 15. The lowest grade will be dropped and the other two grades will count 30% each. The final exam counts as 40% of your grade. **THERE WILL BE NO MAKE-UP EXAMS OR INDIVIDUAL EXTRA CREDIT ASSIGNMENTS.** If you miss one of the in-class exams **for any reason**, the other 2 in-class exams will be counted 30% each. Despite having emphasized my policy of no make-ups, often a student who has done poorly on an exam requests a makeup for a missed test due to an illness, an unfortunate family matter, or other emergency. Understand that the missed exam will be the dropped test, and the grade(s) from other exams will count. Please do not ask for a makeup. If more than one exam is missed then you must withdraw from the course. The last day to withdraw with a grade of "W" is Thurs., November 12.

Grade:	93-100 A	85-88 B+	77-79 B-	70-73 C	64-66 D+
	89-92 A-	80-84 B	74-76 C+	67-69 C-	60-63 D

Please note: Anyone receiving a grade below 60 will not pass this course (i.e. will receive a grade of F). This includes, but is not limited to, graduating seniors, athletes, and students on scholarships.

Plagiarism: Any student caught cheating on an exam or on any assignment will be dealt with in a manner consistent with Hofstra's policy. No such incident will be ignored.

Assignments :

[ ] denotes odd numbers only

### Reasoning, Sequences, Patterns

#	Sec.	Page	Problems	Description
1.	1.1	12	37, 38, 41, 44-47, 53	Problem Solving
2.	1.2	21	[7-25], 47-52	Inductive Reasoning & Deductive Reasoning
3.	9.3	199	[7-55]	Sequences-Arithmetic, Geometric, Fibonacci
4.	9.4	208	[5-11], [15-23], 25-37, [47-57], 58, 59	Arithmetic & Geometric Series

### Computer Related Applications

#	Sec.	Page	Problems	Description
5.	Sup A	238	[1-17]	The 5-Card Trick
6.	3.3	70	9, 13, 15, 16, [21-25], 26, [29-41]	Intro. to Base 2 and Other Bases
7.	3.4	75	[3-29], [49-59]	Binary & Octal Numbers
8.	Sup B	240	[1-9]	The Game of Nim
9.	Sup C	245	[1-9]	The Silver Dollar Game
10.	Sup D	248	[1-7]	The Fifteen Puzzle

### Real Numbers

#	Sec.	Page	Problems	Description
11.	4.1	98	[17-25], 32-43, 46-52	Natural Numbers
12.	4.2	110	9, 11, [17-45], 46, 50, 51, 53-55, 57, 58	Prime Numbers
13.	4.3	119	55-58	Integers
14.	4.4	127	49-54, 60	Rational Numbers
15.	4.5	135	38, 39, 47, 49-52	Irrational Numbers, Pythagorean Theorem
16.	4.6	144	1, 3, 4, 7, 8, [9-19], [27-59], 60	Real Numbers
17.	4.7	154	[5-19], 21-28, 39, 44-46	Congruence-Modular Arithmetic, The Mod Game

### Consumer Mathematics

#	Sec.	Page	Problems	Description
18.	9.1	178	[17-39], [43-55], 60	Interest, Effective Yield, Inflation
19.	9.5	216	[7-33], 37, 41, 45, 47, 51	Annuities, Sinking Funds
20.	9.6	223	[5-25], [33-41]	Present Value of an Annuity, Amortization