SYLLABUS

MATH-2001: DISCRETE MATHEMATICS

SECTION R01

FORDHAM UNIVERSITY

FALL

Name: Szu-Pei Peter Fu, PhD.
Email: sfu17@fordham.edu, JMH 418.

Classroom: JMH 404.

Office Hours: Monday and Thursday, 1:30 pm-4:00pm or by appointment.

Textbook: “Book of Proof” by Richard Hammack, 2nd edition. This is free online and it can be downloaded from http://www.people.vcu.edu/~rhammack/BookOfProof/


Course Description

The course topics include sets and logic, proof techniques, proof by induction, functions, disproof, relations, and counting methods (permutations and combinations). This course will cover most of the content in Chapter 1-12.

Grades

Quizzes: 10%.
Homework: 20%.
Midterm I: 20%.
Midterm II: 20%.
Final Exam: 30%.
Homework Policy: Homework assignments with deadlines will be announced every week. NO late homework. All work should be hand-written and stapled if multiple working sheets used.

Quizzes: In-class quizzes will be given every other week on Thursday. Usually it will take about 10~15 minutes at the start of class. NO make-up quizzes.

**Important Dates**

09/04/2017 (M): Labor Day – school closed.
09/06/2017 (W): Follows Monday schedule.
10/05/2017 (R): Midterm I.
11/16/2017 (R): Midterm II.
12/14/2017 (R): Final exam, 9:30 am.

**Disability Statement**

Anyone with a documented disability is encouraged to contact the instructor privately and the Office of Disability Services within the first week of class.

**Course Outlines**

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<th>Lecture</th>
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<td>08/31 (R)</td>
<td>1.1, 1.2, 1.3</td>
<td>§1.1: 4,10,16,18,22,28,30,36,44; §1.2: 2,8,14,18,20; §1.3: 6,12,16;</td>
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<td>09/06 (W)</td>
<td>1.4, 1.5</td>
<td>§1.4: 6,10,16,18. §1.5: 2,4,8,10.</td>
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<td>09/07 (R)</td>
<td>1.6, (1.7)</td>
<td>§1.6: 2,6; §1.7: 6,8,10,12,14</td>
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<td>Date</td>
<td>Section(s)</td>
<td>Assignments</td>
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<td>09/11 (M)</td>
<td>1.8, 2.1, 2.2</td>
<td>§1.8: 2,6,10; §2.1: 2,6,10,14; §2.2: 4,6,8,14.</td>
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<td>09/14 (R)</td>
<td>2.3, 2.4, (2.5)</td>
<td>§2.3: 2,4,8,12; §2.4:2,4; §2.5: 2,6,8,10.</td>
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<td>09/18 (M)</td>
<td>2.6, 2.7, 2.8</td>
<td>§2.6: 4,8,12; §2.7: 2,8,10.</td>
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| 09/21 (R) | 2.10, 2.11 | §2.10: 2,6,8. | ✔
| 09/25 (M) | 4.2, 4.3, 4.4 | §4: 2,4,8,12,14. |
| 09/28 (R) | 5.1, 5.2 | §5: 2,6,12,20. |
| 10/02 (M) | Review I | | |
| 10/05 (R) | Midterm I | | |
| 10/12 (R) | 6.1, 6.2 | | |
| 10/16 (M) | 6.4, 7.1 | §6: 2,4,8,14. | ✔
| 10/19 (R) | 7.3, 8.1 | §7: 2,6,16,18,26,32. |
| 10/23 (M) | 8.2, 8.3 | §8: 2,8,10,14,22. |
| 10/26 (R) | 9.1, 9.2 | | ✔
| 10/30 (M) | 9.3, 10.0 | §9: 4,8,14,16,26,30. | ✔
| 11/02 (R) | 11.0, 11.1 | §11.0: 4,12,14; §11.1: 6,14. |
| 11/06 (M) | 11.2, 11.4 | §11.2: 6,12; §11.4: 2,6. | ✔
| 11/09 (R) | 12.1,12.2 | §12.1: 2,6,8,10. §12.2: 4,6. |
| 11/13 (M) | Review II | | |
| 11/16 (R) | Midterm II | | |
| 11/20 (M) | 12.3, 12.4 | §12.4: 2,4,10. |
| 11/27 (M) | 12.5, 3.1 | §12.5: 2,4. |
| 11/30 (R) | 3.2, 3.3 | §3.2:4,6 §3.3:4,6,10,13 |
| 12/04 (M) | 3.4, 3.5 | §3.4:4,12 §3.5:4 |
| 12/07 (R) | Review Final | | |
| 12/14 (R) | Final Exam | | |
HW 1: 1.1~1.4  Due 09/11/2017
HW 2: 1.5, 1.6, 1.8  Due 09/14/2017
HW 3: 2.1~2.4  Due 09/18/2017
HW 4: 2.6, 2.7, 2.10  Due 09/25/2017
HW 5: chapter 4  Due 10/02/2017
HW 6: chapter 5  Due 10/12/2017
HW 7: chapter 6  Due 10/19/2017
HW 8: chapter 7  Due 10/26/2017
HW 9: chapter 8  Due 10/30/2017
HW 10: chapter 9  Due 11/06/2017
HW 11: chapter 11  Due 11/13/2017
HW 12: chapter 12  Due 12/07/2017

QUIZ 1: 1.1~1.4
QUIZ 2: 1.5, 1.6, 1.8, 2.1, 2.2
QUIZ 3: 5.1, 5.2, 6.1, 6.2
QUIZ 4: 7.1, 7.3, 8.1~8.3
QUIZ 5: chapter 9, 10.0

MIDTERM 1: chapter 1, 2, 4
MIDTERM 2: chapter 4~9, 10.0

FINAL: everything covered this semester