

COMPSCI/SFWRENG 2FA3
Discrete Mathematics with Applications II
Winter 2020

Course Schedule

Dr. William M. Farmer
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Revised: November 6, 2019

Week 01: Mon, Jan 6 – Sun, Jan 12

Lecture Tue, Jan 7: 0 Introduction to the Course

Lecture Wed, Jan 8: 1 Mathematical Proof

Lecture Fri, Jan 10: 2 Recursion and Induction [1/3]

[No tutorials this week](#)

Week 02: Mon, Jan 13 – Sun, Jan 19

Lecture Tue, Jan 14: 2 Recursion and Induction [2/3]

Lecture Wed, Jan 15: 2 Recursion and Induction [3/3]

Discussion session Fri, Jan 17

[Tutorials start](#)

Week 03: Mon, Jan 20 – Sun, Jan 26

Lecture Tue, Jan 21: 3 Predicate Logic [1/4]

Lecture Wed, Jan 22: 3 Predicate Logic [2/4]

Discussion session Fri, Jan 24

[Tutorials: All Questions Answered!](#)

[Assignment 1: Due on Sun, Jan 26](#)

Week 04: Mon, Jan 27 – Sun, Feb 2

Lecture Tue, Jan 28: 3 Predicate Logic [3/4]

Lecture Thu, Jan 29: 3 Predicate Logic [4/4]

Discussion session Fri, Jan 31

Assignment 2: Due on Sun, Feb 2

Extra Credit Assignment 1: Due on Sun, Feb 2

Reading: Chapters 1–3 of AC¹

Week 05: Mon, Feb 3 – Sun, Feb 9

Lecture Tue, Feb 4: 4 Finite Automata and Regular Expressions [1/5]

Review session Wed, Feb 5

Lecture Fri, Feb 8: 4 Finite Automata and Regular Expressions [2/5]

Midterm Test 1: Wed, Feb 5, 19:00–21:00.

Assignment 3: Due on Sun, Feb 9

Reading: Chapters 4–6 of AC

Week 06: Mon, Feb 10 – Sun, Feb 16

Lecture Tue, Feb 11: 4 Finite Automata and Regular Expressions [3/5]

Lecture Thu, Feb 12: 4 Finite Automata and Regular Expressions [4/5]

Discussion session Fri, Feb 14

Assignment 4: Due on Sun, Feb 16

Extra Credit Assignment 2: Due on Sun, Feb 16

Reading: Chapters 7–9 of AC

Midterm Recess: Mon, Feb 17 – Sun, Feb 23

¹Dexter C. Kozen, *Automata and Computability*, Springer, 1997.

Week 07: Mon, Feb 24 – Sun, Mar 1

Lecture Tue, Feb 25: 4 Finite Automata and Regular Expressions [5/5]

Lecture Thu, Feb 26: 5 Push-Down Automata and Context-Free Languages [1/6]

Discussion session Fri, Feb 28

[Assignment 5: Due on Sun, Mar 1](#)

Reading: Chapters 19–21 of AC

Week 08: Mon, Mar 2 – Sun, Mar 8

Lecture Tue, Mar 3: 5 Push-Down Automata and Context-Free Languages [2/6]

Lecture Thu, Mar 4: 5 Push-Down Automata and Context-Free Languages [3/6]

Discussion session Fri, Mar 6

[Assignment 6: Due on Sun, Mar 8](#)

[Extra Credit Assignment 3: Due on Sun, Mar 8](#)

Reading: Chapters 22–24 of AC

Week 09: Mon, Mar 9 – Sun, Mar 15

Lecture Tue, Mar 10: 5 Push-Down Automata and Context-Free Languages [4/6]

Review session Thu, Mar 11

Lecture Fri, Mar 13: 5 Push-Down Automata and Context-Free Languages [5/6]

[Midterm Test 2: Wed, Mar 11, 19:00–21:00.](#)

[Assignment 7: Due on Sun, Mar 15](#)

Reading: Chapters 25–26 of AC

Week 10: Mon, Mar 16 – Sun, Mar 22

Lecture Tue, Mar 17: 5 Push-Down Automata and Context-Free Languages [6/6]

Lecture Thu, Mar 18: 6 Turing Machines and Computability [1/4]

Discussion session Fri, Mar 20

[Assignment 8: Due on Sun, Mar 22](#)

[Extra Credit Assignment 4: Due on Sun, Mar 22](#)

Reading: Chapters 28–30 of AC

Week 11: Mon, Mar 23 – Sun, Mar 29

Lecture Tue, Mar 24: 6 Turing Machines and Computability [2/4]

Lecture Thu, Mar 25: 6 Turing Machines and Computability [2/4]

Discussion session Fri, Mar 27

[Assignment 9: Due on Sun, Mar 29](#)

Reading: Chapters 31–32 of AC

Week 12: Mon, Mar 30 – Sun, Apr 5

Lecture Tue, Mar 31: 6 Turing Machines and Computability [3/4]

Lecture Thu, Apr 1: 6 Turing Machines and Computability [4/4]

Discussion session Fri, Apr 3

[Assignment 10: Due on Sun, Apr 5](#)

[Extra Credit Assignment 5: Due on Sun, Apr 5](#)

Week 13: Mon, Apr 6 – Sun, Apr 12

Lecture Tue, Apr 7: All Questions Answered!

[No tutorials this week](#)

[Assignment 11: Due on Sun, Apr 12](#)

Final Exams: Thu, Apr 13 – Mon, Apr 28