Class Sessions: Tuesday and Thursday 11:15am-12:30pm

Location: SEC LL2.221

Instructor: Prof. Flavio Calmon (flavio@seas.harvard.edu)

Teaching Fellows:

• Alex Oesterling (aoesterling@g.harvard.edu)

• Joel Rakhamimov (jrakhamimov@college.harvard.edu)

Office Hours and Problem-solving Session

Office hours: Tuesdays 1-2pm with Flavio (outside of SEC 3.306)

Wednesdays 6-8pm with Joel (SEC LL2 Atrium, part of EE Night)

Problem-solving session and office hours: Mondays 3-4pm and Thursdays 3-4pm with Alex (SEC 3.416)

General Resources

- Syllabus
- Slack

Problem Sets

- Problem Set 1: pdf, tex (released Th, Jan 25th; due Fri, Feb 2nd at 6pm)
 - solutions
- **Problem Set 2: pdf**, tex (released Th, Feb 1st; due Th, Feb 8th at 6pm)
 - solutions
- **Problem Set 3:** pdf, tex (released Fri, Feb 9th; due Fri, Feb 16th at 9pm)
 - solutions
- **Problem Set 4: pdf**, tex (released Sat, Feb 17th; due Fri, Feb 23rd at 9pm)
 - solution
- Problem Set 5: pdf, tex (released Sat, Feb 24th; due Mon, Mar 4th at 11:59pm)
 - solutions [not posted yet]
- Problem Set 6: pdf, tex (released Wed, Mar 20th; due Fri, Mar 29th at 9pm)
 - solutions [not posted yet]
- Problem Set 7: assignment on Canvas (due Fri, Apr 12th at 11:59pm)
- Problem Set 8: assignment on Canvas (due Fri, Apr 19th at 11:59pm)
 - "On Bandwidth" paper mentioned in Q2b
- **Problem Set 9:** pdf, tex (released Wed, Apr 24th; due Wed, May 1st at 11:59pm)
 - Software Defined Radio Lab (alternative to math)
 - Signup sheet to be posted very soon

Exams

- **Past midterms**: 2017 (in class), 2018 (in class), 2019 (in class), 2020 (take home), 2021 (take home), 2022 (in class), 2023 (in class)
- **Past finals**: 2018 (in class), 2019 (in class), 2020 (take home), 2021 (take home), 2022 (in class), 2023 (in class)

Course Material

Class Session 1 (Th 1/25): Overview & Taxonomy of Signals

- Reading: Section 1.1 (of Signals and Systems, by Oppenheim and Willsky)
- Slides

Class Session 2 (Tu 1/30): Manipulating Signals

- Reading: Section 1.1-1.5 (of Signals and Systems, by Oppenheim and Willsky)
 Slides, Notes
 Class Session 3 (Th 2/1): A First Look at Systems
 Reading: Section 1.4-1.6 (of Signals and Systems, by Oppenheim and Willsky)
 Slides, Notes
- Class Session 4 (Tu 2/6):
 - Reading: Section 2.1-2.5
 - Slides, Notes
- Class Session 5 (Th 2/8):
 - Reading: 2.3-2.4
 - Slides, Notes
- Class Section 6 (Tu 2/13):
 - Reading: 3.1-3.3
 - <u>Slides</u>, <u>Notes</u>
- Class Section 7 (Thu 2/15):
 - Reading: 3.4-3.5
 - Slides, Notes
- Class Section 8 (Tu 2/20):
 - Reading: 3.6-3.7
 - Slides, Notes
- Class Section 9 (Th 2/22):
 - Reading: 3.6-3.7
 - Slides, Notes
- Class Section 10 (Tu 2/27):
 - Reading: 3.8-3.9
 - Slides, Notes
- Class Section 11 (Thu 2/29):
 - Reading: 4.1-4.2
 - Slides, Notes
- Class Section 12 (Tu 3/5):
 - Reading: 4.2-4.3
 - Slides, Notes
- Class Section 12.5 (Th 3/7):
 - Midterm!!! Good luck:)
- Class Section 13 (Tu 3/19):
 - Slides, Notes
- Class Section 14 (Thu 3/21):
 - Reading: 4.7-4.8, 5.1
 - Slides, Notes
- Class Section 15 (Tu, 3/26):
 - Reading: 6.0

• Slides, Notes

Class Section 16 (Th, 3/28):

• Reading: 7.1-7.3

• Slides, Notes

Class Section 17 (Tu, 4/02):

• Reading: 7.4-7.5

• Slides, Notes

Class Section 18 (Thu, 4/04):

• Reading: 8.4-8.9

• Slides, Notes

Class Section 19 (Tu, 4/09):

• Slides, Notes

Class Section 20 (Th, 4/11):

• Slides, Notes

Class Section 21 (Tu, 4/16):

• Slides, Notes

Class Section 22 (Th, 4/18):

• Slides, Notes

Class Section 23 (Tu, 4/23):

• Slides, Notes