

# ABET Review: SP/ML

## Spring 2022

# Course Offerings & Enrollments

Class	Title	Sp'20	Su'20	Au'20	Wi'21	Sp'21	Su'21	Au'21	Wi'22	Sp'22
235	CT Linear Systems	88		112	73	51				
241	Prog. For SIP App							101	97	96
242	Signal Processing I							79	98	98
341	DT Linear Systems	47		35	60	47	29	38		
342	Signal Processing II					34			29	28
440	Digital Signals & Filtering			40				37		
442	Design & App of DSP				34				36	
443	Mach. Learning SIP					11 (Old)				29 (New)

# ABET End of Course compliance – missing reports – Eve nagged on May 5 and 6, 2022

- **Spring 2021**
- EE 235 CT Linear Systems (Maryam Fazel)
- **Autumn 2021**
- EE 241 Programming for Signal and Information Processing Applications (Jimin Kim)
- **Winter 2022**
- EE241 Programming for Signal and Information Processing Applications (Jenny Cho, but I just noticed this 5/10/22)

# ABET outcomes

Novice/Developing/Competent/Exemplary

Course	Offering	Faculty	Q1	Q2	Q3	Q4	Q5	Q6	Q7
440	Au'20	MTS	0/1/4/1					1/0/3/2	
	Au'21	MTS	0/1/3/2					0/1/3/2	
442	Win'20	JN	0/1/5/0	0/2/4/0					
	Win'21	JN	0/2/2/2	0/1/5/0					
443	Spr'20	JN			0/0/4/2		0/0/3/3		0/0/3/3
	Spr'21	JN			0/1/2/3		0/2/1/3		0/2/0/4

1: Solve Problems. 2: Apply Design Considering Constraints. 3: Communication.  
~~4: Ethics~~. 5: Teams. 6: Experiment & Analyze Data. 7: Learning

# Thoughts (1)

- SPML students now take ENGINE capstone
- MT Sun retired but he did teach EE440 this past fall and is signed up to teach it again in Aut'22. Not sure how long this will continue.
- MT reported that some students in Aut'21 were weak in prereqs for EE440.
- Covid was a challenge in 2020-21 and Win'22 and often students watched recorded lectures instead of attending by Zoom in real time. This negatively impacted class discussions and was worse when students turn off cameras
- EE442 switched from Matlab to Python in Winter 2021

# Thoughts (2)

- Winter 2022 was mostly online (due to Omicron) so EE442 had multiple-choice exams, which make it hard to assess student learning
- EE443 was hard to teach during the pandemic. Issues included:
  - Having no TA support with just 11 students
  - Shipping hardware to students all over the world
  - Remote hardware debugging and real-time data collection
- EE443 changed to non-capstone in 2022 and enrollment increased from 11 in 2021 to 29
- EE443 switched to use cloud based CPU/GPU in 2021
- EE443 added ML and deep learning in 2021

# Thoughts (3)

- Les will teach EE342 this fall. He wants the title changed from Signal Processing II to something else.
- Initial thoughts from EE242 (Sep Makhsous) are:
  - Taking EE241 concurrently is a bad idea – students are having trouble with the labs
  - Toggling back and forth between continuous and discrete time can be confusing for some students
  - Some students are doing unequal amounts of work in the group labs
- No EE241 EOQs yet to review