Graduate Programs Overview

Graduate and Professional Studies

gradengr@uci.edu

Revised 7/13/2022

Agenda

- Why get a graduate degree?
- Why UCI?
- What types of graduate degrees are there?
- How to prepare for graduate school

Why get a graduate degree?

A graduate degree in Engineering will…

"Graduate school polished a lot of skills of mine, including scientific communication, scientific writing, teaching and taught me how to accelerate my learning curve. It also mentally prepared me for my future career." – BME PhD Alumnus

Salary Comparison

	Bachelors	Masters
Aerospace and Aeronautical Engineering	$77,826	$117,000
Biomedical and Bioengineering	$62,433	$79,000
Chemical Engineering	$72,718	$86,000
Civil Engineering	$63,004	$73,000
Computer Engineering	$72,746	$102,000
Electrical Engineering	$72,237	$99,000
Environmental Engineering	$57,733	$71,000
Industrial and Systems Engineering	$88,950	$128,399 - 136,435
Mechanical Engineering	$81,000	$100,000
Petroleum Engineering	$91,000	$108,000

Source: https://prodigyfinance.com/resources/blog/engineering-salaries-go-masters/

Why UCI for graduate school?

World-Class

UCI is among the top 100 in the 2021

Times Higher Education
World University Rankings

Public University

TOP 10

in the U.S. for seven consecutive years

— U.S. News & World Report 2022

#3 in the nation for Diversity

— The Wall Street Journal/ Times Higher Education 2022 College Rankings

#1 University

doing the most for the **American dream**

— The New York Times

TOP 10 "Cool School"

in the U.S. for Sustainability

by *Sierra* magazine for 12 years

Why Choose Samueli School?

UCI Samueli School of Engineering

Faculty members have achieved worldwide honors and recognition for their research

Interdisciplinary research across departments

Partnership with industry and state/federal agencies

Research Thrusts

UCI Samueli School of Engineering

Environmental Sustainability

Human Health

Materials and Manufacturing

Mobility and Communications

What types of graduate degrees are there?

What is a Research Degree?

An advanced program of study allowing students to investigate a specific topic within their field.

Under the supervision of faculty, students learn advanced research methodologies to produce new knowledge and provide solutions to challenges within your discipline area.

Learn through analysis, lab work, and scientific research.

Master of Science (M.S.)	
Thesis	**Comp Exam**
36-48 units	36-48 units
Research with faculty advisor	All coursework
Published thesis	Comprehensive exam
2 years/6 quarters	3 to 5 quarters

Doctor of Philosophy (Ph.D.)
Published Dissertation
Can apply directly from Bachelor's degree
Research with faculty advisor
Funding commitment up to 5 years
5 years (4 years if previous Master's)
Preparation for careers in research-based positions within: academia, national labs, and industry

Research Programs: M.S./Ph.D.

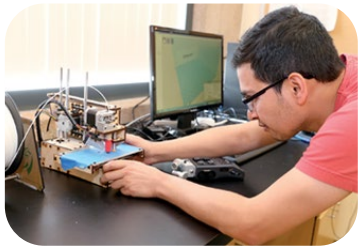
UCI Samueli School of Engineering

Biomedical Engineering

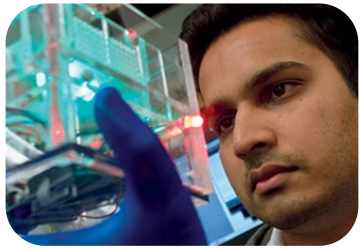
Chemical and Biomolecular Engineering

Civil and Environmental Engineering

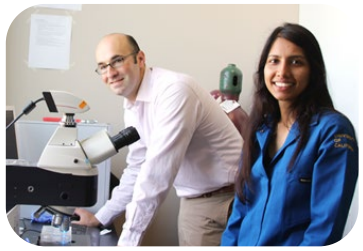
Computational Science Joint Doctoral Program



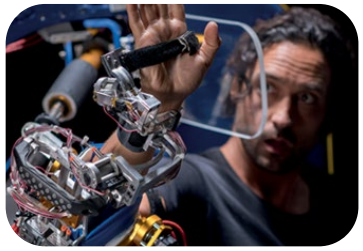
Electrical Engineering and Computer Science



Materials and Manufacturing Technology



Materials Science and Engineering



Mechanical and Aerospace Engineering

Networked Systems

What is a Professional Degree?

UCI Engineering Professional Degrees

UCI Samueli School of Engineering

Master of Engineering (M.Eng)

- Biomedical Engineering
- Electrical Engineering and Computer Science
- Mechanical and Aerospace Engineering

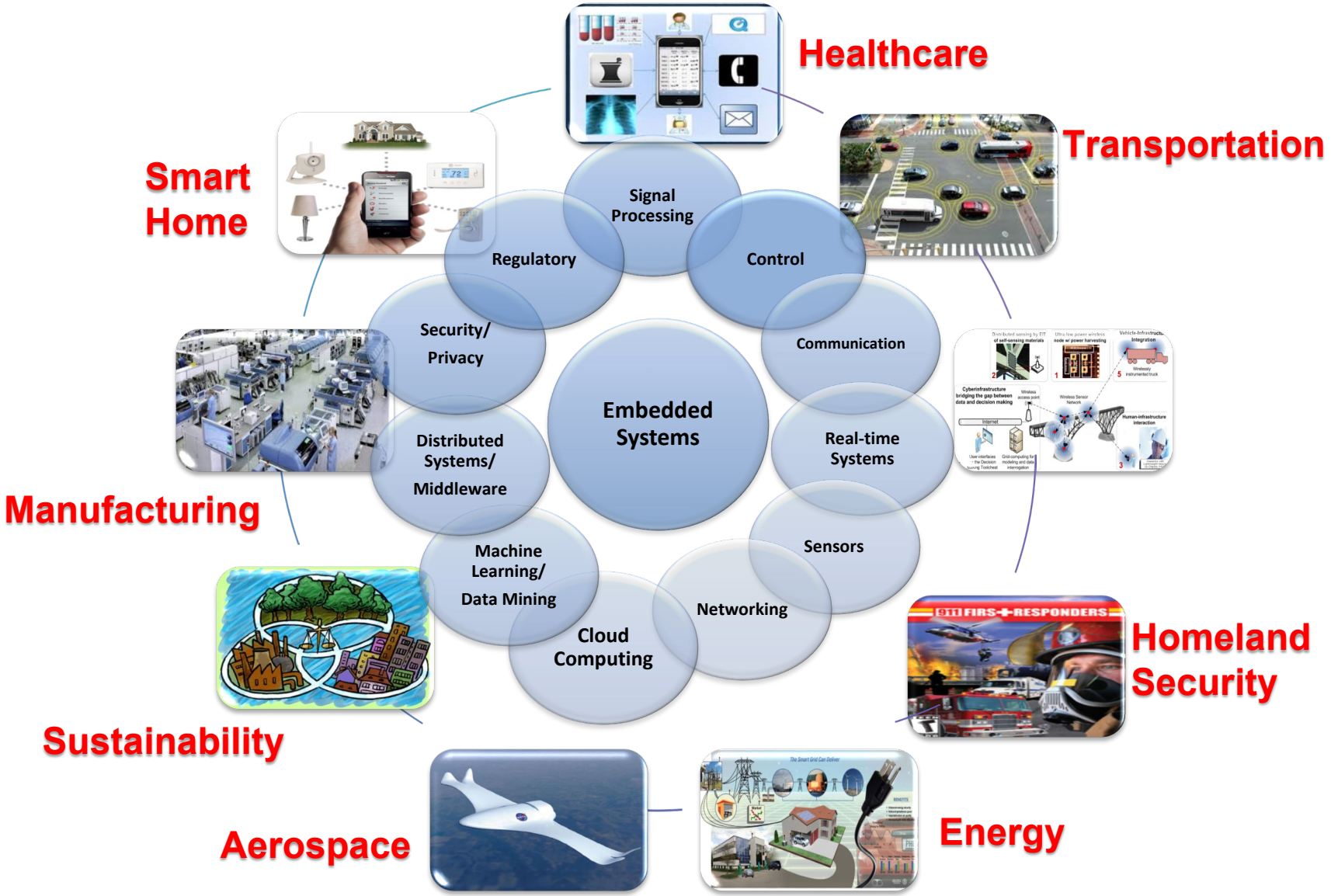
Master of Embedded and Cyber-physical Systems (MECPS)

Joint program with the

UCI School of Information and Computer Science

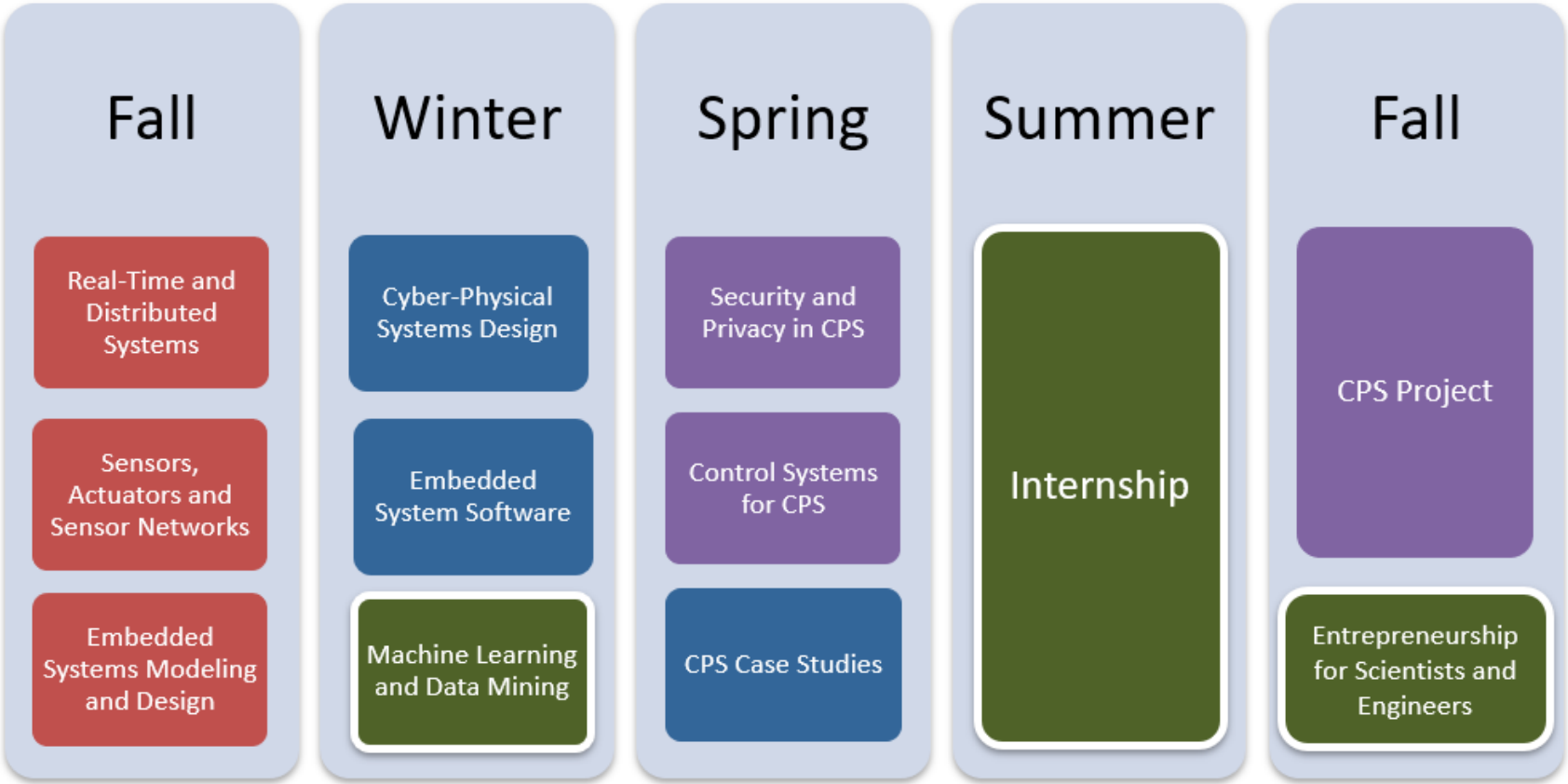
MECPS

UCI Samueli School of Engineering



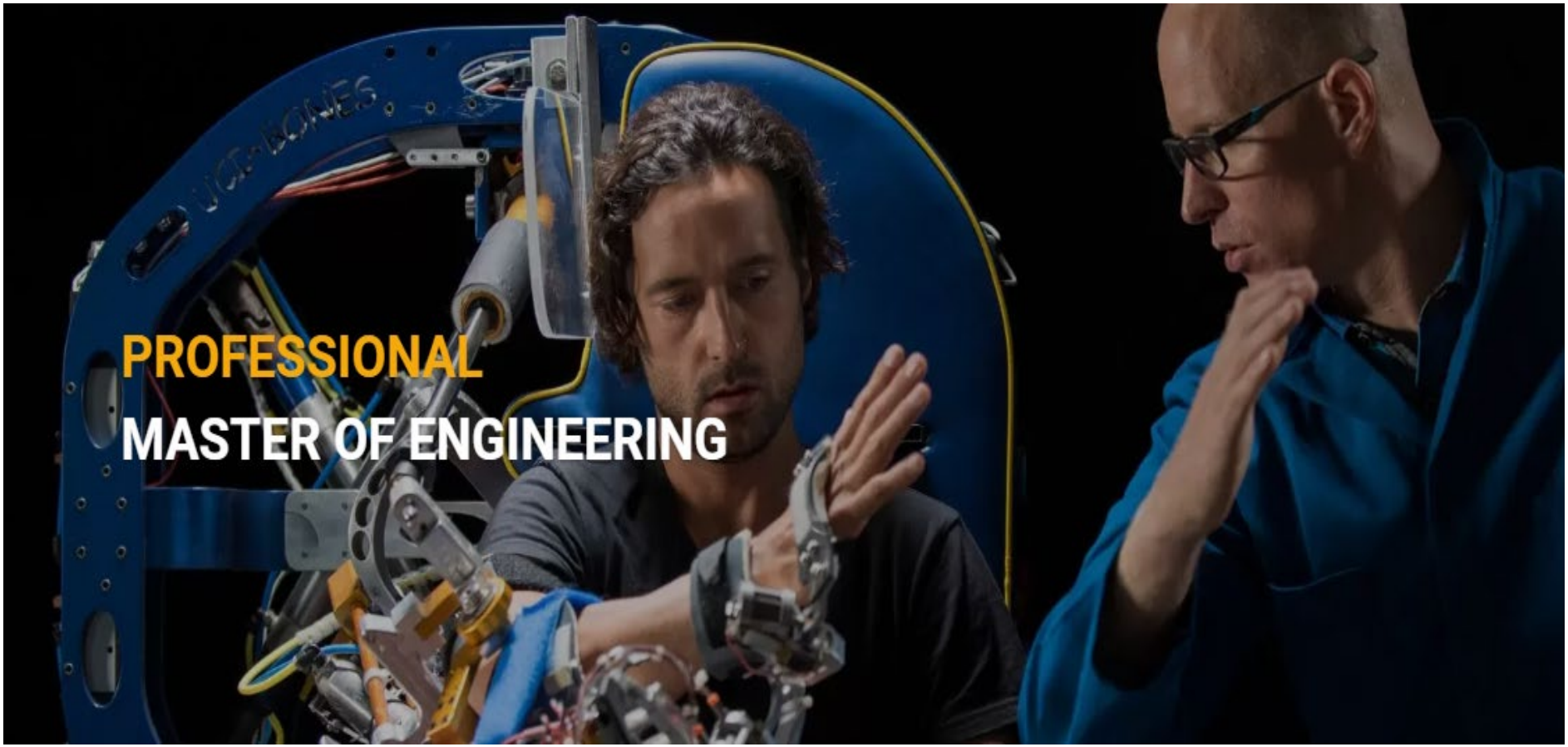
MECPS Roadmap

UCI Samueli School of Engineering



Master of Engineering

UCI Samueli
School of Engineering



Master of Engineering Tracks

UCI Samueli School of Engineering

Biomedical Engineering

BioENGINE

Electrical Engineering and Computer Science

Digital & Image Signal Processing

Communications Circuits & Systems

Mechanical and Aerospace Engineering

Autonomous and Intelligent Machines and Systems

Energy Systems

Nanotechnology and Microsystems

The M.Eng Difference

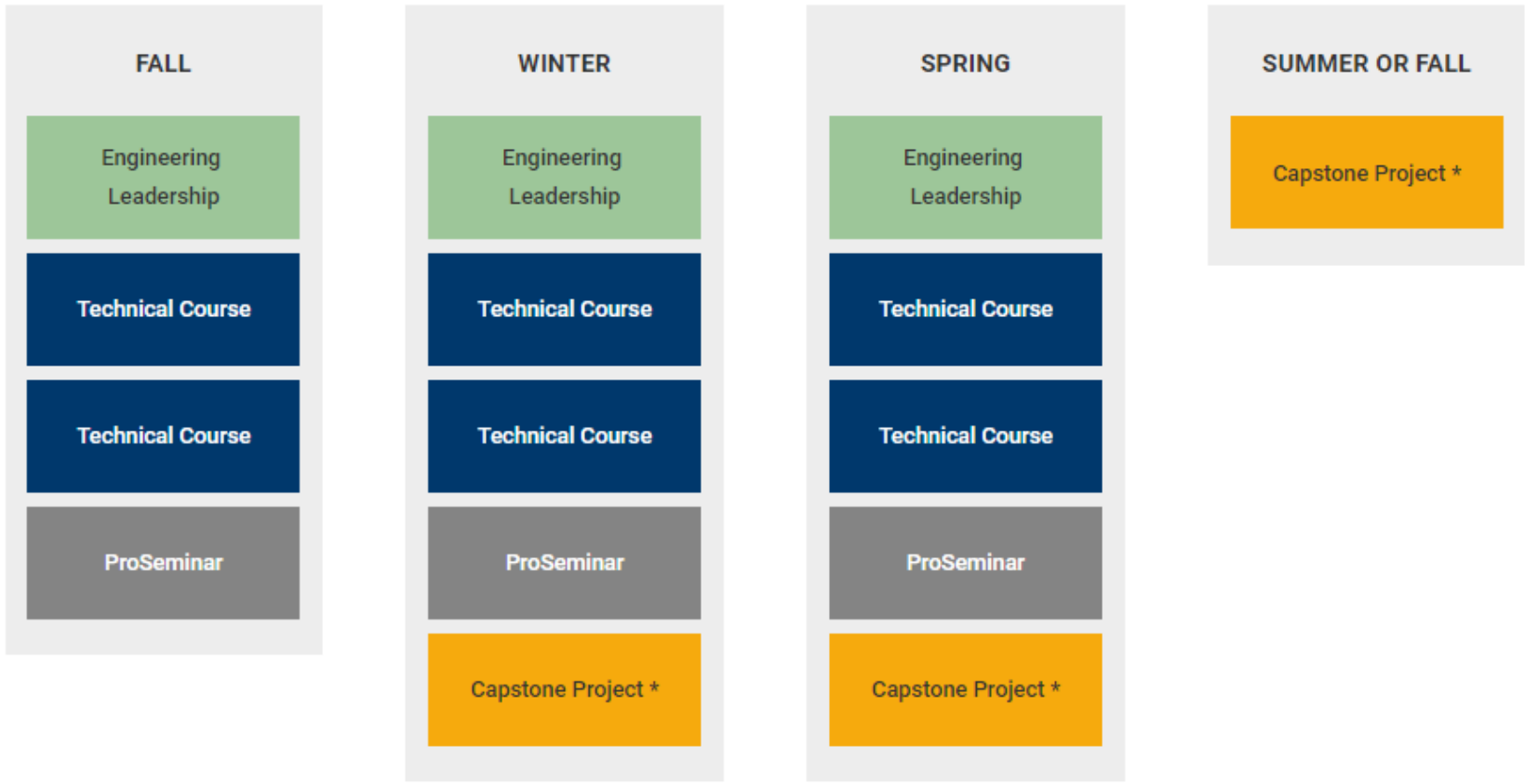
UCI Samueli School of Engineering

Curriculum:

- Technical Courses:
  - Students **acquire integrative knowledge of systems** as well as **hands-on knowledge and experience**.
  - Opportunity to work on **real-life problems** with faculty and industry partners.
  - Students are trained in the technical aspects of their concentration
- Final Deliverable:
  - Interdisciplinary team project with industry partnership, oversight, and mentorship.
- Business Leadership Training:
  - Innovate- Build- Launch!
  - Equips students with the business knowledge and skills to be more agile managers and leaders.
- Built in Career Support
  - Dedicated Master of Engineering Career Pro- Seminar course to support you and your professional goals.

Master of Engineering Roadmap

UCI Samueli School of Engineering



* Students will enroll in 8 units for their capstone project and can elect either Winter & Spring or Summer & Fall.

Master of Engineering	Masters of Science
Capstone Project	**Comprehensive Exam/Published Thesis** *** Thesis only for BME**
Collaborative and Team Oriented	Individual work and Independent Study/Research
9 technical courses 2 quarters capstone project	36-48 units of coursework and research
Experiential learning + professional development curriculum	Coursework + Comp Exam/Published research with faculty
Dedicated Career Center	UCI Career Pathways
1 year (*option to extended)	1-2 years depending on final deliverable

Why M.Eng or MECPS?

UCI Samueli School of Engineering

- ✓ Deepen technical understanding/skills across a wider area
- ✓ Professional goal to work in industry or entrepreneurship
- ✓ Understand inner workings of industry
- ✓ Build and Enhance your Network
- ✓ Maximizes career opportunities

- ✓ More competitive in job search and employment opportunities
- ✓ Change your career trajectory: Valuable & Agile Manager/Leader
- ✓ Increasing potential earnings!

Application Materials

UCI Samueli School of Engineering

- Application Fee
- GPA: 3.0 min requirement
- Three letters of recommendation
- GRE (not required for M.Eng and some MS)
- TOEFL or IELTS (if applicable)
- Statement of Purpose & Personal History
- Video Component (Master of Engineering)
- University Transcripts from all schools attended (unofficial accepted for admissions review)

Deadlines vary so check program website when applying

Preparing for Graduate School

UCI Samueli School of Engineering

- Start preparing now!
- If applicable, prepare for GRE (and TOEFL) and schedule soon
- Strong letters of recommendation…
  - Visit faculty member during office hours
  - Ask advice about graduate schools
  - Have discussion about research interests
- If applying to research-based program, connect with potential research advisors (Resource: faculty.uci.edu)
- Have others review Statement of Purpose and Personal History Statement

Any questions?

Graduate and Professional Studies
gradengr@uci.edu
949-824-8090

Contact us to set up a consultation today!