SENIOR DESIGN PROGRAM

During a two-semester senior design course, students work in groups to solve real-life engineering problems. The first semester covers manufacturing and production issues in preparation for the senior design experience. Students will complete the first phase of their two-semester engineering design project focused on product design/creation or improvement, including problem definition, background, and a preliminary proposal.

In the second semester, students will perform the design, fabrication, and testing of their product design or implementation, testing, and prepare the document for defense, and a final proposal. The proposal from the first semester guides the fabrication and implementation and testing to meet a detailed specification of engineering requirements. Both written and oral reports will be required.

The Business and Engineering faculty will be jointly involved.

Christopher T. Eber
Maintenance Engineering Senior Resource, Frito-Lay Manufacturing Plant, Brea, CA
Mr. Eber joined Frito-Lay in 1982 as a Production Shift Manager managing multiple shift teams across the manufacturing operation.

Gene H. Fritchman
Vice President of Engineering, U2-systems, Inc.
Mr. Fritchman is responsible for the overall planning, execution, and success of all Research and Development as well as Engineering support for all legacy and current production products at U2-systems, Inc. U2-systems is an industry leader in LED lighting technology, product design, and manufacturing.

Dr. Thomas Maloney
Director – Technology, Research and Development as well as the overall planning, execution, and success of all Research and Development as well as Engineering support for all legacy and current production products at U2-systems, Inc. U2-systems is an industry leader in LED lighting technology, product design, and manufacturing.

Can you tell me more about the MEM curriculum?

- Students may also pursue Industry Advisory Board
  • Safran MorphoTrust
  • Pratt & Whitney
  • Frito-Lay
  • Dymax
  • Airbornway Corporation
  • Trumpf
  • Sikorsky Aircraft Corporation
  • Cooper Surgical, Pratt & Whitney
  • Sikorsky Aircraft Corporation, Connecticut Center for Advanced Technology, and General Electric
  - The majority of student’s interned in manufacturing or operations supply chain departments
  - Students also take part in rotational internship programs where they gain experience in multiple Supply Chain departments, including Research & Development, Manufacturing, Marketing, and Sales.
  - MEM students have the unique opportunity of having access to the Center for Career Development and the School of Business to help them in obtaining internships.
  - For more information about MEM students get into graduate school directly!
  - There are many post-graduate programs where MEM students can perform graduate studies, majors including, but not limited to Industrial Engineering, Manu- facturing System Engineering, Supply Chain Management, Industrial Engineering, Management Information Systems.
  - UConn School of Business recently developed MEM in Business Analytics (BAPM) 4+1 track, where MEM students have the opportunity to earn a master’s degree with only taking one extra year of courses. See more information about the MS BAPM track: https://msbapm.business.uconn.edu/
  - Students may also pursue Industrial Engineering and Operations Research Ph.D.

FAQs

Can you tell me more about the MEM curriculum?

- MEM students can pursue both engineering courses, business courses, and MEM courses.
- MEM students are taught by faculty from both the School of Business and the School of Engineering.
- Students are also exposed to different types of engineering because the MEM Faculty is from ME, ECE, MIS, CE.
- Multiple courses offer projects for students to get hands-on learning experiences. Some projects involve internships and senior design projects, such as MEM 3221 where course exposure students to Solid-Works and U2 printing, start by making gears and work their way up to a group project and where they need to create three components that fit together and make one part (An MEM 3221 student wants to create 7000 parts, part improvement and one is a global complex project)

- Their Senior Design Project is a group project and can also involve multiple majors (ME, CEE)
- Senior Design Projects are sponsored by industry partners so that the students are working on solving real-world problems that have value in industry.

What internships do MEM students do? All MEM students have the unique opportunity of having access to the Center for Career Development and the School of Business to help them in obtaining internships.

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Some of the MEM senior design projects involve an industry sponsor. Past sponsor include:
- Artekna Corporation
- Dymax
- Pilotex
- Pratt & Whitney
- Sahlen's Beef Jerky
- Sikorsky Aircraft
- Trumpf
- Tom Simpley/Groove
- Went to Water
- Industry sponsors have a chance to meet and work with students for focused hiring. Students provide a technical representative to periodically meet with the team, report on team member’s progress, and refine real-world input and guidance.

Please contact us to sponsor a project or to learn more.

Dr. Jing Tang, (860)-486-5911, jing.tang@uconn.edu or Charles Marie, (860)-486-5818, charles.marie@uconn.edu

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WHY MEM?

MEM graduates have immense value to employers as:
• Supply Chain Managers
• Project/Program Managers
• Process Engineers
• Quality Control Engineers
• Design Engineers
• New Product Engineers
• Engineering Management and Engineering for Manufacturing Program (3)
• First Semester (18 CREDITS)
• MEM 1151- Introduction to the School of Business. MEM graduates have immense flexibility to work as practicing engineers or to focus more on the business side.

MEM CURRICULUM (138 CREDITS)

PROGRAM STATISTICS

MEM CURRICULUM (CONT.)

MEM students graduate with a Bachelor of Science in Management and Engineering for Manufacturing, conferred by both the School of Engineering and the School of Business. The UConn MEM program is accredited by ABET (in both engineering management and manufacturing engineering), which is the same organization that accredits all engineering programs at UConn and other national peer institutions. It is also accredited by AACSB as part of UConn’s School of Business. MEM graduates have immense flexibility to work as practicing engineers or to focus more on the business side.

MEM graduates have careers as:
• Design Engineers
• New Product Engineers
• Manufacturing Engineers
• Industrial Engineers
• Process Engineers

• First Semester (16 CREDITS)
• ENGR 1000- Orientation to Engineering Principles (3)
• ECE 2000- Electrical and Computer Engineering (1)
• CSE 1010- Introduction to Computing for Engineers (3)
• CHEM 1127Q/1147Q- General Chemistry/ Honors General Chemistry (4)
• STAT 1000Q/1100Q- Introduction to Statistics I/ Elementary Statistics (4)
• ENGL 1010/1011- Seminar in Academic Writing/ Seminar in Writing through Literature (4)
• MATH 1132Q- Calculus II (4)

MEM graduates have the highest median base salary of all majors within the
School of Business. MEM students graduate with a Bachelor of Science in Manufacturing, conferred by both the School of Engineering and the School of Business. The UConn MEM program is accredited by ABET (in both engineering management and manufacturing engineering), which is the same organization that accredits all engineering programs at UConn and other national peer institutions. It is also accredited by AACSB as part of UConn’s School of Business.

MEM graduates have careers as:
• Design Engineers
• New Product Engineers
• Manufacturing Engineers
• Industrial Engineers
• Process Engineers
• Quality Control Engineers
• Project/Program Managers
• Supply Chain Managers
• Logistics & Operations Managers
• Manufacturing Engineers
• New Product Engineers
• Design Engineers
• Engineering Management and Engineering for Manufacturing Program (3)
• First Semester (18 CREDITS)
• MEM 1151- Introduction to the Manufacturing Systems Lab (1)
• MEM 2211- Introduction to Manufacturing Systems (3)
• MEM 2212- Introduction to Manufacturing Systems Lab (1)
• MAT 2110Q- Multivariable Calculus (4)
• PHYS 1501Q- Physics for Engineers I (4)
• CE 2110- Applied Mechanics (3)
• ANTH 1030/EDGC 1700- Other Peoples Worlds/World Regional Geography (3)
• MEM 4225- Advanced Products and Processes (3)
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• MEM 4225- Advanced Products and Processes (3)
• MEM 4971W- Senior Design Project I (2)
• MEM 4972W- Senior Design Project 2 (2)
• MEM 4971W- Senior Design Project I (2)
• MEM 4225- Advanced Products and Processes (3)
• MEM 4972W- Senior Design Project 2 (2)
• MEM 4971W- Senior Design Project I (2)
• MEM 4225- Advanced Products and Processes (3)
• MEM 4972W- Senior Design Project 2 (2)
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