

College	Science
Department	Engineering
Program	M.S. Engineering Management

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difficulty entering the U.S. The Pandemic has exacerbated this problem. We have seen a substantial increase for Fall 2022.

1. Updated the laboratory equipment
2. Increased enrollment to all time high
3. Asking for a faculty position for next year

The Engineering Management program started in the year 2003 and was steadily growing until 2016. The problems with acquiring U.S. visa for international students and then the pandemic had a significant impact on the enrollment in the program. Starting 2021, the enrollment has been on the increase and now has reached 78 students that is close to an all time high.

Since the Fall semester of 21 all courses have returned to on ground instruction.

Demand for domestic Engineering Management graduates is not strong.

Since 2004, we have had three faculty dedicated to the Engineering Management and the Industrial Engineering programs. The faculty include Drs. Helen Zong, David Bowen and Farnaz Ganjeizadeh. Dr. Zong has entered the early retirement program.

We currently have one full time SSP (Lisa Holmstrom) who is heavily involved in student advising. We are also supported by the CS-Engineering hub that includes three full time personnel. The school of Engineering also has a technician (Linh Nguyen) that is in charge of laboratory upkeep, assisting faculty with their software and hardware problems and ordering course supplies and other hardware or software needs.

The laboratory resources are sufficient for the offering of this program.

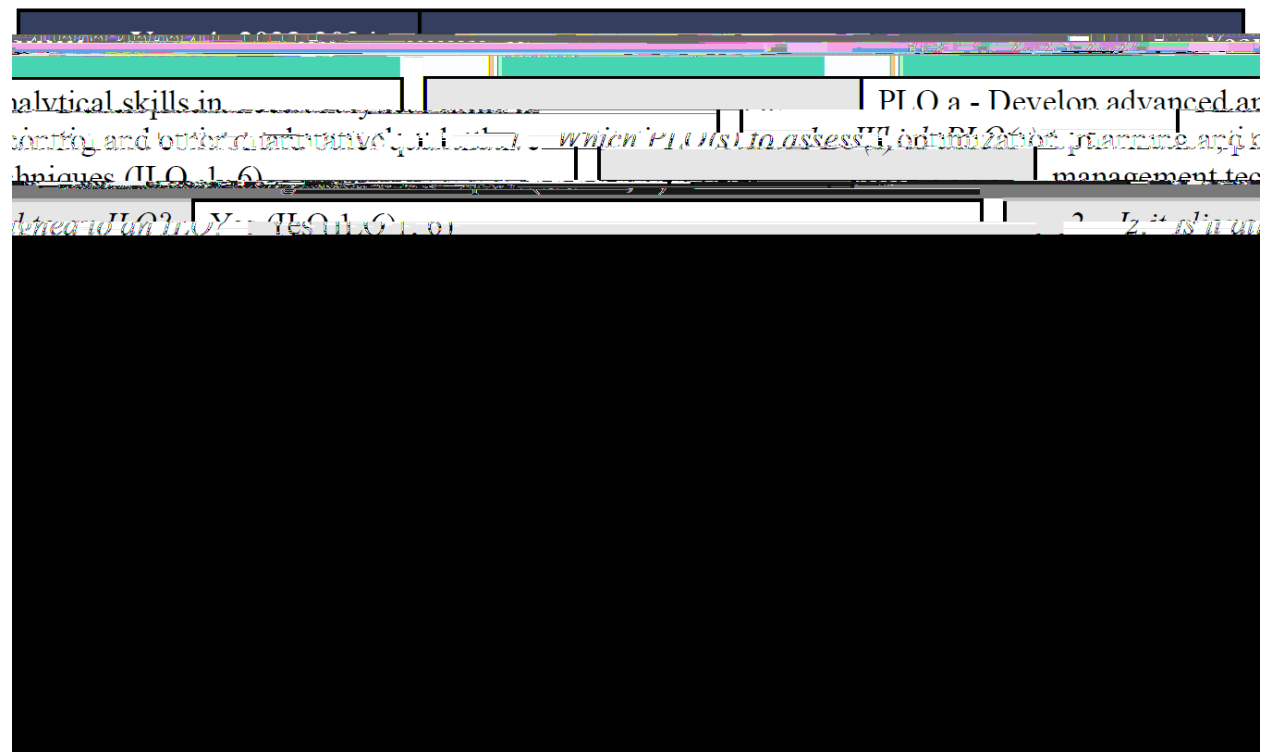
An extensive assessment process is in place for the Engineering Management program. Sample re (n)-4 Sam((n)-4 Sam((n)-4 Sam((n)-4 S-((n) e)-1 (re)-0.9 ((n)-4 Sa-4)-4 (l)10 1 (n) (me)id

Summary: In this course students work on MS projects in teams. The course requires an extensive literature search and identification of original and impactful topics to work on. The team presents several reports including a proposal and progress reports. They also deliver a final report and a final presentation. The reports and the presentations are evaluated using the following rubric. Alumni have evaluated the course material as valuable in their professional career. The performance indicators for assessment of this outcome and the rubric used are as follows. The rubric that is used to evaluate the projects is as follows:

Project topic originality	5%
Methodology	8%
Application	5%
Written report	20%

Team Presentation	20%
Team member evaluation	5%
Peer evaluation	2%
Clarity of Presentation	10%
Presentation material	10%
Team transactions	5%
Individual presentation ability	10%

According to this rubric around 35% of the grade is related to originality and methodology of the research that can evaluate students' ability to acquire new knowledge. For the 15 students (5 teams) who participated in this evaluation, the average percentage for the portion of the rubric related to research was 75% with the lowest grade of 70% and the highest of 90%. The majority of students achieved the communications skills outcome.



Discussion of Trends & Reflections

The following table is enrollment data extracted from Pioneer Data Warehouse. As the data indicates the Engineering Management enrollment has been in a downturn trend for the past three years. From the high of 87 in 2015 to low of 25 in the Fall of 2019 in Fall 2020 we have seen an uptick in enrollment. The pandemic and the difficulty of acquiring U.S. visas for international students have been a major factor in this trend. As seen in Figure 2, the enrollment is recovering. It currently stands at 78 students. We plan to increase our advertising to the local student population in order to reduce the reliance on international students. The three faculty that serve this program are also responsible for the industrial engineering program. We have not hired any TT faculty since 2004.

Figure 1 Five years enrollment trend.

Program	Cort. Grad/PBAC	2019	2020	2021	2022	2023
Engineering Management	30.00	17.00	21.00	15.00	30.00	78.00
Total	40.00	25.00	30.00	26.00	58.00	

Enrollment Profile

The program has a high percentage of female students. As of Fall 2023 the percentage of female students is around 40%. The majority of the students in the program are international (90%). This is not very unusual for graduate engineering programs.

Notable Trends:

1. Recovering enrollment
2. Industry demand for the graduates
3. Reliance on international students
4. Active Advisory Board Council

We believe the enrollment in the program will increase to about 90 students within the next three years.

We have not hired any faculty in Industrial Engineering or Engineering Management since 2004. All faculty are full time professors (one FERP). These programs require the addition of a new tenure-track faculty to stay current.

N/A