Engineering Technology has been a program in existence for over 20 years at Triton College. I was under the stewardship of (2) full-time faculty until 1998, when the faculty of the program started retiring.

The current (1) full-time faculty for the program, Antigone Sharris, started in the role of full-time faculty and program coordinator January of 2000.

From January of 2000 through 2006, the focus of the program was to improve completion rates. This was done by:

A. Increased student interaction, by:
   a. Staying in touch more with the students in the program, not just in my own classes, but in the program as a whole
   b. Encouraging my adjunct faculty to do the same
   c. Doing proactive degree audits on the students, informed them of their courses needed to complete their degree and/or certificate program, instead of waiting for them to ask what to take next
   d. Talking with each student about developing goals, short term and long term

B. Curriculum cleanup/revisions:
Since most were in the program for career attainment and/or advancement, I was able to determine that the best plan of action was to complete a certificate program that rolled into an Associate’s degree program that further rolled into a complementary Bachelors program. I adjusted the curriculum accordingly to make sure that the certificates aligned well with the degrees.

The outcome was increased completion rates:

![Engineering Technology Graduates by Gender](image-url)
However, enrollment was not improved:

![Engineering Technology Enrollment](image)

Since 2006, the focus has adjusted to include improving the curriculum at a course-by-course level. I attribute the change here to my involvement in FIRST, an international robotics competition. By working with the area high school robotics team on their competition, I started thinking there is a better way to teach.

The curriculum was adjusted to have the courses incorporate more project based learning experiences, moving away from being more “turn-key” (book and trainer driven) to more in alignment with how industry really operates, demand based with the need to develop skills across the board in order to accomplish the task at hand. While gaining the knowledge in the courses, the students are now having the below skills developed and improved upon:

- Team work
- Project planning
- Research
- Troubleshooting
- Presentation

In 2010, the program labs were moved to a new space. This move was the opportunity to retool the program with modern equipment, smaller and more multi-tasking than what the old labs had to offer, and organize the labs to be more flexible and allow better allow for the project learning environment envisioned, where lecture and lab time intermixed in the same space.

The new spaces opening up another opportunity, improving the labs to make them more student centered. The old labs had been separated by being on different floors of the same building and “down the hall” from each other. The new spaces have all the labs next to each other. This logistical change has allowed the curriculum to be physically unified, matching what is seen in the catalog and how the courses are run, allowing the student to clearly see how the courses interact with each other. There is literally no more “silo-ing” within the curriculum itself.

And, since the students have the majority of their core courses in the same spaces, we added a microwave and snack storage area in the central lab so the students don’t feel they have to leave to get a bit to eat after classes or between classes. This has resulted in the development of study groups, sharing of knowledge on course details from upper classmen to lower classman, and friendships that I think will last past the years here at Triton.
The combination of these changes has translated in improved completion rates (including improved consistency) for both males and females and an increase in retention (enrollment):

![Engineering Technology Graduates by Gender](image1)

![Engineering Technology Enrollment](image2)

What is still an issue is female enrollment. This has not increased in any significant manner.

![Engineering Technology Enrollment](image3)
However, diversity in general has been greatly improved in the program:

2000 to 2006:

**Engineering Technology Graduates by Race**

- Black
- Hispanic
- White

**Engineering Technology Enrollment by Race**

- Black
- Hispanic
- White
2007 to 2012:

**Engineering Technology Graduates by Race**

**Engineering Technology Enrollment by Race**
Looking ahead, to increase the female enrollment rates, I started a summer program for girls only in 2011 called GADgET (Girls Adventuring in Design Engineering & Technology). By working with these 12 to 16 year old ladies now, I am hoping to see them become our students later!

Photos from GADgET (Summers 2011 and 2012):

- Girls being told about spun metal products by owner, Janet @ Century Metal Spinning
- Girls hearing about how quoting is done, with the aid of AutoCAD @ Century Metal Spinning
- Girls with the parts they made @ Century Metal Spinning
- One of the girls making her part @ Century Metal Spinning