

# Data and Evidence Analysis Summary – Electrical and Computer Engineering Technology (CET/EET) 2016

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## WTCS Comparative Data:

<https://facultyresources.westernnc.edu/wp-content/uploads/2015/11/2015-10-663-2-Electronic-Computer-Engineering-Technology-QRP-Evidence-Analysis-Report.pdf>

### Course Completion

- C or better course completion for the Electrical and Computer Engineering Technology program ranged from 64.8% in 2011 to 69.3% in 2015. When compared to the two other colleges selected as a comparison group, Western's ranks 2<sup>nd</sup> out of three. Fox Valley Technical College consistently out-performed Western during these years and may be worth further examination.
- Western's number of students ranged from 91 in 2011 to 88 in 2015. The other two WTCS colleges have seen decreased enrollment from 2011 to 2015 also. Again further examination and possible discussions with program faculty might be of value.

### Second Year Retention

- Western's second year retention ranged from 65.3% in 2010 to 67.4% in 2015 for an average over time of 55.1%.
- It experienced a low in 2012 at 43.2% and rebounded to 67.4% in 2015.
- When compared to the other two schools in the comparison group, Western had the second lowest average second year retention over the 6 years of measurement. Averages over the 6 years ranged from 55.1% for Western to 59.0% for Waukesha County Technical College.
- Western's cohort size (number of starting students) ranged from 49 in 2010 to a high of 62 in 2011. With an average of 48 first-term students declaring the program in a given year, Western has the highest enrollment of first-term students within this comparison group for 2015.

### Western's Third Year Graduation

- Western's third year graduation ranged from 20.4% in 2011 to 25.0% in 2015 with an average over the six years of 21.9%. Western's 2014 report year cohort (students starting in 2011) achieved the highest third year graduation with 28.9% of students graduating within three years.
- Waukesha Country reported no statistics for third year graduation rates. Fox Valley Technical College was the only other college used for comparison data. Western's third-year graduation rate (average) of 21.9% was higher than FVTC's rate of 21.0%.

## Labor Market Analysis October 2015

<https://facultyresources.westernnc.edu/wp-content/uploads/2015/11/2015-OCT-Electronic-and-Computer-Engineering-Technology-Program-Trends.pdf>

In an analysis of the Western District and occupations associated with the field of agri-business, the following points are noted:

- From 2016-2020, these occupations are expected to grow 6.87%. This is considered strong growth with the national average being at 1.5%
- Expectations for district trends remain stronger than both state (1.4%) and national (1.5%) trends.
- Job distribution throughout the district has high concentrations in La Crosse County.
- This program includes occupations with an aging population, 49.9% of those employed are 45 years of age or older. The smallest segment of workers is the 19-24 year old population with 6.5%. The high school population of students may benefit from greater exposure to the occupations and benefits of working in agribusiness occupations.
- Specific occupations with strong growth include Telecommunications Equipment Installers and Repairers, Except Line Installers (8% - 19 new positions)
- Other occupations with high percentages of increase but relative mild numbers of new positions include:
  - Electrical and Electronics Drafters – (13% and 1 position)
  - Electronics Engineers, Except Computer– (11% and 3 positions)
- Earnings for graduates of this program (median) are strong ranging from \$21.90 per hour for Equipment Installers and Repairers, Except Line Installers to \$41.62 for Computer Hardware Engineers.

## Student Satisfaction Trends

The Noel Levitz Student Satisfaction Inventory was conducted in the fall of 2015. The instrument asks students to rate the importance AND the satisfaction with 95 items (1-7 with 7 as highest) related to the following “scales”:

- Instructional effectiveness
- Academic advising/counseling
- Concern for the individual
- Registration effectiveness
- Admissions and financial aid
- Student centeredness
- Campus climate
- Academic services
- Service excellence
- Safety and security
- Campus support services and responsiveness to diverse populations

In the program self-study process (data and evidence analysis work), programs are asked to identify gaps between importance and satisfaction. Gaps are calculated as the difference between the importance of an item and the satisfaction level. Gaps that are close to a “1” should be discussed and explored – particularly if they are tied to items that are rated as high in importance for students.

There is no current data to analyze for this trend.

## Student Learning Outcomes Assessment Trends

<https://facultyresources.westernnc.edu/wp-content/uploads/2014/07/2ElectronicComputerEngineeringTechnologyS.pdf>

Your program had 9 responses to the survey. Items that may be topics of discussion for this program include:

- Celebrate the good feedback you received about the real-life application of concepts and the variety of courses included in the program. Students seem to appreciate the hands-on learning and the program instructors.
- There are some suggestions for improvement from the students. It might be valuable to look at past survey results to identify trends in the qualitative feedback received from students. Those results are housed on the Program Excellence web site.
- A couple of students commented about the need for a tougher physics course – potentially a calculus-based physics. This may be something to explore in more depth.
- The majority of the students either strongly agreed or agreed that they were able to learn and master both the program outcomes and the Core Abilities. Students seemed with the meaning to “transfer social and natural science theories into practical applications.” Some of this can be attributed to the wording of this particular Core Ability.

## Graduate Follow-Up Trends

Year	2012-13
Types of jobs obtained	Control Systems Specialists Electrical Engineering Lab Tech
Companies hiring Western graduates	Dairyland Power Cooperative, La Crosse, WI Astronautics Corp of America, Milwaukee, WI

Year	2013-14
Types of jobs obtained	Electronics Technician Equipment Technician Intern
Companies hiring Western graduates	Agricultural Instruments Corporation, Holmen, WI Minitube of America LLC, Verona, WI SAP Americas, La Crosse, WI

Year	2014-15
Types of jobs obtained	Remarketing Technician RF Technician Telecommunications Technician
Companies hiring Western graduates	Dynamic Recycling, Onalaska, WI Communications Service, La Crosse, WI Dairyland Power Cooperative, La Crosse, WI

**Career Pathways Self-Survey**

- No data to analyze.