

Data and Evidence Analysis Summary – 2016

Industrial Electronics and Maintenance

Formerly Electrical Systems Installation and Maintenance

Conducted by Michael Poellinger, Curriculum Services Manager, and Judy Handland, Curriculum and Learning Assessment Specialist, August 10, 2016

WTCS Comparative Data:

<https://facultyresources.westernnc.edu/wp-content/uploads/2015/11/2015-31-414-6-Electronic-Systems-Installation-Maintenance-QRP-Evidence-Analysis-Report.pdf>

Course Completion

- C or better course completion for the Industrial Electronics and Maintenance program ranged from 78.4% in 2011 to 93.3% in 2015. When compared to the one other college selected as a comparison group, Western ranks 1st out of two.
- Western's number of students ranged from 37 in 2011 to 15 students in 2015. The other WTCS college saw increased enrollment from 2011 to 2014. Further examination and possible discussions with program faculty might be of value.

Fall to Spring Retention

- Western's fall to spring retention ranged from 96.6% in 2010 to 92.9% in 2015 for an average over time of 88.8%.
- It experienced a low in 2011 at 82.1% and rebounded to 94.4% in 2014.
- When compared to the other school in the comparison group, Western had the higher average fall to spring retention over the 6 years of measurement. Averages over the 6 years ranged from 88.8% for Western to 79.0% for Northcentral Technical College.
- Western's cohort size (number of starting students) ranged from a high of 29 in 2010 to a low of 14 in 2015. With an average of 24 first-term students declaring the program in a given year, Western has the higher enrollment of first-term students within this comparison group for 2015.

Western's Second Year Graduation

- Western's second year graduation ranged from 60.7% in 2013 to 89.5% in 2015 with an average over the six years of 70.1%. Western's 2015 report year cohort (students starting in 2013) achieved the highest third year graduation with 89.5% of students graduating within two years.
- In a comparison to the other college, Western's second-year graduation rate (average) of 70.1% is 1st out of two. The other school was Northcentral Technical College at 42.7%.

Labor Market Analysis October 2015

<https://facultyresources.westernnc.edu/wp-content/uploads/2015/11/2015-OCT-Electronic-Systems-Installation-and-Maintenance-Program-Trends.pdf>

In an analysis of the Western District and occupations associated with the field of Industrial Electronics and Maintenance, the following points are noted:

- From 2016-2020, these occupations are expected to grow 4.9%. This is considered strong growth for Western's district when compared with the national average of 2.5%
- Expectations for district trends stronger than both state (2.9%) and national trends.
- Job distribution throughout the district has high concentrations in La Crosse County and Monroe County.
- This program includes occupations with an aging population, 48% of those employed are 45 years of age or older. The smallest segment of workers is the 19-24 year old population with 8.6%. 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 Electricians (12% - 52 new positions)
- Other occupations with high percentages of increase but relative mild numbers of new positions include:
 - Electronic Home Entertainment Equipment Installers and Repairers – (13% - 2 positions)
- Earnings for graduates of this program (median) are strong ranging from \$13.67 per hour for Electrical and Electronic Equipment Assemblers to \$26.26 for Electricians.

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/2014/07/2ESIMSpring2016StudentSLOReport.pdf>

Your program had 7 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 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 inclusion of more troubleshooting within the curriculum.
- 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 to not understand what it means 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	Lab Tech Intern Lock and Dam Operator Machinist Helper Maintenance Technician Material Handler Sorting Maintenance Technician
Companies hiring Western graduates	Trane, La Crosse, WI US Army Corps of Engineers, Genoa, WI Northern Engraving, Sparta, WI Crescent Printing Co., Onalaska, WI Kish and Sons Electric, La Crosse, WI Continental/Midland, Park Forest, IL

Year	2013-14
Types of jobs obtained	Broadcast Engineer Electronics Technician Maintenance Technician Mechanical Technician
Companies hiring Western graduates	Self-employed WI Air National Guard, Camp Douglas, WI Agropur Ingredients, La Crosse, WI Cardinal IG, Tomah, WI Cummins Filtration, Neillsville, WI

Year	2014-15
Types of jobs obtained	Electro Mechanical Technician
Companies hiring Western graduates	Westby Cooperative Creamery, Westby, WI

Career Pathways Self-Survey

- Your program had 2 responses to the survey. Both were full-time faculty.
- Items that may be topics of discussion for this program include:
 - There also seems to be potential for different learning activities – service learning for example.
 - There also appears to be a need to help with advising current students.
 - In many cases, there are “unknowns” and “neither agree nor disagree” responses.
 - Your program had a small response rate on this survey and many of the areas can help drive future team discussions. There is opportunity to offer this or similar surveys to other stakeholders to develop a more holistic view of potential program improvements.