

PROGRAM REVIEW

**For Occupational Programs
Implemented Under the Provisions of Series 37 of the
West Virginia Council for Community and Technical College Education**

Institution: Southern West Virginia Community and Technical College
Program: Electrical Engineering Technology, Associated in Applied Science

March 2017

PROGRAM REVIEW
Southern West Virginia Community and Technical College
Programs Without Specialized Accreditation

Summary of Findings
2016-2017

Program Name: Electrical Engineering Technology, Associate in Applied Science
Hours Required for Graduation: 60

I. Synopses of significant findings, including findings of external reviewer(s)

A. Adequacy

1. The curriculum has adequate requirements that meet the needs of business and industry.
2. The program has established goals and objectives.
3. The program provides a variety of skilled job pathways.
4. Entrance abilities for the students are within community college standards.
5. The program has appropriately trained faculty.
6. The program maintains appropriate assessment tools.

Conclusion: Program meets minimum adequacy requirements

B. Viability

1. The program is near capacity for enrollment.
2. Graduates are within expectations for the program.
3. Previous history of the program indicates number of future students seeking the degree will remain steady or increase.
4. The program provides a smooth transition to bachelor degrees.

Conclusion: Program meets minimum viability requirements

C. Necessity

1. The program meets a validated industry demand.
2. The graduates find successful gainful employment.

Conclusion: Program meets minimum requirements for necessity.

D. Consistency with Mission

1. The program supports the mission and vision of the institution.
2. The program and core courses support the compact.
3. There is limited impact on other programs.

Conclusion: Program is consistent with the mission of the college.

II. Plans for Program Improvement, Including Timeline

The math department has worked with program faculty to develop strategies to improve student math competencies through the introduction of a co-curricular model for delivery of remediation. The gateway math course also underwent a specific review to restructure class activities to better align with the technology students learning styles. Early indications are that this is increasing the number of individuals who successfully complete the program math requirements. Results of these changes will continue to be reviewed and improved as necessary.

Budget for the program is spent each year on upgrades for software and purchasing of additional simulators. Increased efforts on tracking and advising students to assist with completion of courses in sequence will continue to be monitored and improved as necessary. Additional efforts are being made to track students beyond graduation. All activities are ongoing.

III. Identification of Weaknesses or Deficiencies from the Previous Review and the Status of Improvements Implemented or Accomplished

The last program review was conducted in 2012. The weaknesses noted were a lack of lab space and weak student math skills leading to increased time to graduate. The lack of lab space is still a constraint on the program, but has been ameliorated in part by creation of the mechatronics lab at the Williamson Campus and creative scheduling of the Logan lab. The lack of math skills has been addressed by introduction of the co-curricular model. This strategy has increased the number of individuals successfully completing the math sequence on time.

IV. Five Year Trend Data on Graduates and Majors Enrolled

Program enrollment has been at capacity during the review period. This trend is expected to continue. The number of graduates has increased during the last five years.

V. Summary of Assessment Model and How Results Are Used for Program Improvement

The assessment model contains a variety of measurements for classroom performance. Student advising and progress toward graduation is monitored by the division head along with regular consultation with the program faculty. Outcomes are discussed at department meetings and changes in delivery and content are made accordingly. Formal curriculum changes are presented in

accordance with the established Institutional policy and procedures for curriculum and instruction.

VI. Data on Student Placement

Approximately half of the graduates who responded to requests for information are working in the electrical field. The other half of respondents were continuing their education.

VII. Final Recommendation Approved by the Governing Board

See the attached resolution for Board of Governors final recommendation and signatures.

Program Review
Southern West Virginia Community and Technical College.
Programs Without Specialized Accreditation.
2016-2017

Program Name: Electrical Engineering Technology, Associate in Applied Science
Date of Last Review: 2011-2012

I. Program Description

The Electrical Engineering Technology Associate in Applied Science degree program directly supports Southern's mission to provide programs of study in career and technical fields that lead to certificate degrees and/or the Associate in Applied Science degree for entry into the workforce. The program has also been used as a transfer program. The program's mission is to provide students with an academic and technical education with sequential/practical instruction for the development of the student as a mature, responsible engineering technician. The curriculum incorporates basic and advanced course in electricity, electronics, and electrical machinery applicable in multiple industries including mining, mining support, and construction. Students are offered a variety of specialized electives to meet current job market demands.

The program has grown in recent years. The complete program is offered at the Logan Campus. Support courses for this program may be taken at any of Southern's campuses. Select engineering (EG) courses are also required in the mechatronics and electromechanical instrumentation programs. Students may take these courses on the Williamson Campus as well as the Logan Campus.

II. Specialized Accreditation Information

This program does not have any specialized accreditation.

III. Program Statement on Adequacy, Viability, Necessity, and Consistency with College Mission

A. Adequacy

1. Curriculum

The curriculum for the Electrical Engineering Technology Associate in Applied Science degree program consists of a total of 60 credit hours. These include 23 hours in general education, 21 hours in a technical core, and 16 hours in technical specialization electives. The core courses provide students with a solid foundation. The technical electives are offered according to industry need and also allow a student some leeway to focus on areas that interest him or her such as power generation and distribution, controls, or wiring. All technical courses are taught from a practical viewpoint and blend theory and

application and where appropriate have a laboratory component incorporating hands-on activities.

The program completed curriculum revisions at the end of the 2011-2012 academic year and reduced the credits hours from 62 to 60 to meet the requirements as outlined in WVCTCS Title 135 Procedural Rule Series 11. Additional equipment was purchased and new technical specialization courses created in 2013-2014 to expand offerings in residential and commercial wiring. The curriculum can be found in Appendix I.

2. Faculty

The EET program has been delivered utilizing a combination of full-time and part-time faculty. All faculty are qualified to teach the courses they have taught. General education courses are taught by credentialed full-time and adjunct faculty in the respective areas. The bulk of the program major classes during the last five years have been taught by William (Bill) Moseley. John Evans and Steven White are full-time faculty who have taught EG courses. They attended training and earned Siemens Level I certification training in the summer of 2016. This will enhance the controls portion of the program. It is planned for Bill Moseley to attend Siemens training in summer 2017. Adjuncts have been used to supplement full-time faculty instruction and to provide instruction in their respective areas of expertise. Faculty data sheets for program faculty can be found in Appendix II.

3. Students

a. Entrance Abilities

Southern has an open-door admission policy. Any person with a high school diploma or GED may take classes at Southern. All entering students will use ACT scores or take a placement test to be placed in the proper math and English courses. Southern utilizes a co-curricular model for delivery of remedial math and English. Southern has had good success in helping students elevate their abilities to be a success in college-level math and English. Use of the co-curricular model helps students to graduate on time (four semesters).

b. Exit Abilities

Upon completing the degree requirements, student will have the necessary knowledge and skills to be successful in most entry-level positions in the electrical engineering technology industry that require an associate degree. Students will also have an understanding of the importance of life-long learning and the need to continually upgrade their skills.

c. Graduate Follow-up Data

Graduate follow-up data is collected in a variety of methods. While informal information is available, formal results remain limited. The program faculty and staff maintain positive

relationships with most students beyond graduation that provides informal feedback and job statistics. These results continue to provide overall satisfaction with the program and jobs obtained after graduation.

Formal surveys are conducted each year which tend to yield low response. The last graduating class (2016) had a zero rate of return. Formal efforts were expanded over the past five years to also include phone surveys which yielded an 82% response from the class of 2016. Many of these students chose not to relay salary data or specific employer information. Of those who shared their information, three were working full-time, two were working part-time, and four were continuing their education elsewhere.

4. Resources

a. Financial

This program is supported by an institutional budget. In addition, grants have been used to implement mechatronics and electromechanical instrumentation programs at the Williamson Campus. Having the lab and instructors at Williamson has allowed us to offer some engineering (EG) classes there as well, thereby expanding the capacity of the program.

b. Facilities

This program has one dedicated lab on the Logan Campus that supports this program. Additional classrooms are used to teach the lecture portion of courses. Select engineering (EG) courses are also taught at the Williamson Campus. The lab portion of the courses takes place in a well-equipped mechatronics lab at that campus. Additional materials have been purchased for the Logan lab allowing for an enhanced experience in commercial and residential wiring.

5. Graduate and Employer Satisfaction

As noted previously, very few surveys have been returned. The informal information has resulted in positive comments with the exception of the issue with the Journeyman license as described below in section 6. The bulk of the information we have regarding employer satisfaction has come from our advisory committee meetings described below in section 7 and those present have indicated overall satisfaction with program outcomes.

6. Assessment Information

Assessment of student performance in this program occurs at the course level. Students also complete a capstone course that reviews student performance and works with students to complete licensures and/or certifications. In addition, the West Virginia Journeyman Electrician License exam, has been used as an end-of-program assessment. However, a recent change in the state Fire Marshal's

office has led to a reinterpretation of the rule regarding who is eligible to take the exam. As the rule was written before community colleges existed in the state, the “letter of the law” does not allow community college graduates to sit for the exam. The fire marshal has convened a group to study the situation and propose a rewritten rule. It is anticipated that community colleges will be written into the new rule and Southern graduates will once again be able to sit for the Journeyman Electrician licensure exam. Until that new rule can be written and take effect, students may sit for the West Virginia Apprentice Electrician licensure exam. Faculty are in the process of selecting additional end-of-program assessments. It is recommended the incoming Chair for the School of Career and Technical Studies play a role in selecting additional assessments.

7. Previous Program Reviews

The previous program review identified numerous strengths of the program with only a couple weaknesses. The strengths have continued and the two identified weaknesses have been improved. One identified weakness was limited capacity due to lab space. Using the mechatronics lab for EG classes that support the Mechatronics program provides additional capacity for EET students who choose to take the class at the Williamson Campus. However, lab space continues to serve as a constraint on growth of the program. The other reported weakness was weak student math skills leading to extended time to graduation. Southern has adopted a co-curricular model for delivery of developmental math and English. This model allows “just in time” remediation and has resulted in improved success in college-level math courses and shortened times to graduation.

8. Advisory Committee

Employers have provided feedback regarding our EET and Mechatronics programs in a combined forum. They report satisfaction with the programs as they are, and hope for them to continue. Our EET graduates are well-prepared to enter the workforce.

9. Strengths and Weaknesses

a. Strengths

- (1) Dedicated faculty who continue to receive new training to remain current in the field.
- (2) Expanded capacity due to creation of a lab at the Williamson campus.
- (3) Up-to-date equipment and software purchased.
- (4) Additional qualified faculty and adjunct faculty have been hired, which expand capacity of the program.

b. Weaknesses

- (1) Additional alternative end-of-program assessment needs to be selected.

- (2) Limited lab space at the Logan Campus limits possible expansion of the program.

B. Viability

1. Program Enrollment and Graduates

Semester	Duplicate Headcount Student Total	Non-duplicate Student Headcount	AAS Declared Major Count
Fall 2014	102	40	49
Spring 2015	101	37	51
Summer 2015			3
Fall 2015	152	56	48
Spring 2016	128	52	54
Summer 2016	0	0	6
Fall 2016	153	65	45
Spring 2017	73	34	36
Total	709	284	292

Fall enrollment in this program has remained at capacity throughout the evaluation period. The slight increase observed in the last couple of years is due to the addition of the Mechatronics program and an increase in capacity created largely through innovative scheduling and hiring of additional adjuncts. It is anticipated that enrollment in this program will remain strong in the future. The drop in EG course enrollments between fall 2016 and spring 2017 reflects the fact that certain EG classes are taken early in the mechatronics degree program. Beginning with the 2016-2017 academic year, those courses were sequenced into the fall semester for the mechatronics program. The addition of the Mechatronics program and change of majors from Electrical Engineering Technology to Mechatronics contributed to the slight decline of majors. Therefore, the spring 2017 data more accurately reflect EET student registration in EG classes without the confounding of mechatronics students.

The number of graduates per year has increased during the last five years. It is anticipated that this number will remain fairly steady as the program is at capacity.

Number of EET graduates for last five years	
2012	4
2013	5
2014	9
2015	8
2016	10
Total	36

2. Program Course Enrollments

The Electrical Engineering Technology program does not require formal admission to the program. Some of the lower level or special interest courses have no prerequisites. Although these courses would be open to anyone who wishes to take them, most people who enroll in these courses seek the Electrical Engineering Technology certificate and/or associate degree. As can be seen from the **Appendix III – Course Enrollments**, there has been a slight upward trend in EET course enrollment along with credit hour production over the last few years. It is expected that program enrollment will remain at the current level or even increase in the next few years. A challenge to expansion is space and equipment for new technology labs that would be required to support additional sections of courses.

3. Service Courses

Three EG courses (e.g. 103, EG 105, EG 107) are required in the mechatronics program (Associate Degree and Industrial Technology Certificate – Mechatronics Option) and in the Electromechanical Instrumentation Technology Certificate program. Additional EG classes can be used as some of the specialization courses in the Mechatronics Associate in Applied Science degree.

4. Off-Campus/Distance Delivery Classes

Southern's EG courses have been delivered face-to-face. Among the support courses, CS 102, EN 101, and SP 103 have had the option to be taken online while most EET students choose the face-to-face option.

5. Articulation Agreements (2+2, etc.)

No formal articulation agreements exist. However, an informal agreement was previously made between Southern and West Virginia University Institute of Technology (WVUIT). This allowed a seamless transfer between Southern's EET program and WVUIT. WVUIT has undergone significant changes in recent years and this agreement should be revisited. Discussions have also been had with Bluefield State University. Bluefield State University has structured their degrees in such a way that no formal 2+2 agreement is necessary. They will accept Southern graduates and move them seamlessly into their degree program.

C. Necessity

This program continues to serve a need in the area. Employers throughout the region and the state continue to look for people with the skills taught in this program. It has been stated that companies in the Charleston area cannot hire enough qualified people. That is especially true if the people have skills and knowledge of controls.

D. Consistency with College Mission

Southern's mission is to provide accessible, affordable, quality education and training that promote success for those we serve. Southern's open door admission policy and low tuition help make education and training, affordable and accessible for people in the region. Southern employs full-time and part-time faculty that are highly qualified and highly motivated to help people learn. The Electrical Engineering Technology program continues to provide graduates with the skills and knowledge that are in demand in the area, to meet students where they are, and train them for future jobs.

IV. Recommendation

It is recommended that the Electrical Engineering Technology Associate in Applied Science program at Southern West Virginia Community and Technical College be continued without corrective action.

Appendix I Curriculum

**Electrical Engineering Technology
Associate in Applied Science**

Support Courses:

CS 102	Computer Literacy	3 Credit Hours
EN 101 or EN 101A	English Composition I	3 Credit Hours
MT 124 or MT 124A	Technical Math	3 Credit Hours
MT 125 or MT 130	Trigonometry or College Algebra	3 Credit Hours
OR 105	Orientation to Technical Programs	1 Credit Hour
PH 200 or higher	Introductory Physics	4 Credit Hours
SP 103	Speech Fundamentals	3 Credit Hours
Restricted Elective	Social Science elective	3 Credit Hours

Major Courses:

EG 103	Electrical Calculations	3 Credit Hours
EG 105	Industrial Safety	1 Credit Hour
EG 107	Introduction to Circuits	4 Credit Hours
EG 123	Electrical Schematics	3 Credit Hours
EG 171	Circuit Analysis I	4 Credit Hours
EG 172	Circuit Analysis II	4 Credit Hours
EG 297	National Electric Code	1 Credit Hour
EG 298	Capstone	1 Credit Hour
Restricted Electives	Specialization Courses	16 Credit Hours

Appendix II Faculty Data

FACULTY DATA SHEET

(No more than **TWO** pages per faculty member)

Name John Evans Rank Instruc. Specialist

Check one: Full-time X Part-time _____ Adjunct _____

Highest Degree Earned: B.S.
 Date Degree Received: August 1974
 Conferred by: West Virginia Institute of Technology
 Area of Specialization: Electrical Engineering

Professional registration/licensure: Certified Electrical Engineer
 Years of employment at present institution: 1.5
 Years of employment in higher education: 1.5
 Years of related experience outside higher education: 41
 Non-teaching experience: 41

To determine compatibility of credentials with assignment:

- (a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught). For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	Course Number & Title	Enrollment
Fall 2015	EG 103 Electrical Calculations	1
Fall 2015	EG 107 Introduction to Circuits	1
Fall 2015	EG 105 Industrial Safety	1
Fall 2015	EG 123 Electrical Schematics	1
Fall 2015	MX 120 Mechanical Power I	1
Fall 2015	MX 250 Basic Instrumentation	1
Spring 2016	EG 103 Electrical Calculations	14
Spring 2016	MX 120 Mechanical Power I	16
Spring 2016	MX 130 Fluid Power I	2
Spring 2016	MX 180 PLC Fundamentals	15
Spring 2016	MX 184 PLC Interfacing & HMIS	15
Spring 2016	MX 186 PLC Applications	15
Spring 2016	MX 250 Basic Instrumentation and Control	8
Spring 2016	MX 254 Adv. Instrumentation and Control	7
Summer 2016	MX 140 Manufacturing Processes I	6
Summer 2016	TS 275 Special Topics: Control Loop Tuning & Instrumentation	1
Fall 2016	EG 103 Electrical Calculations	33

Year/Semester	Course Number & Title	Enrollment
Fall 2016	EG 105 Industrial Safety	36
Fall 2016	EG 123 Electrical Schematics	6
Fall 2016	MX 120 Mechanical Power I	7
Fall 2016	MX 230 Fluid Power II	7
Fall 2016	MX 250 Basic Instrumentation and Control	12
Fall 2016	OR 105 Orientation to Technical Programs	8
Spring 2017	MX 110 Introduction to Mechatronics	6
Spring 2017	MX 120 Mechanical Power I	5
Spring 2017	MX 130 Fluid Power I	10
Spring 2017	MX 140 Manufacturing Processes I	5
Spring 2017	MX 190 Industrial Robotics	6
Spring 2017	MX 254 Adv. Instrumentation and Control	7
Spring 2017	MX 256 Control Loop Tuning & Wireless Communication	5
Spring 2017	MX 298 Mechatronics System Design Capstone	7

- (b). If degree is not in area of current assignment, explain.
Degree is in area of current assignment.
- (c). Identify your professional development activities during the past five years.

FACULTY DATA SHEET

(No more than **TWO** pages per faculty member)

Name Sivy Farhi Rank Instructor

Check one: Full-time X Part-time _____ Adjunct _____

Highest Degree Earned: BSEE

Date Degree Received: _____

Conferred by: _____

Area of Specialization: _____

Professional registration/licensure: _____

Years of employment at present institution: _____

Years of employment in higher education: _____

Years of related experience outside higher education: _____

Non-teaching experience: _____

To determine compatibility of credentials with assignment:

- (a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught). For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	Course Number & Title	Enrollment
Fall 2015	EG 103 Electrical Calculations	19
Fall 2015	EG 107 Introduction to Circuits	15
Fall 2015	EG 214 Electrical Control Systems	16
Fall 2015	EG 181 Analog Electronics	15
Spring 2016	EG 123 Electrical Schematics	24
Spring 2016	EG 171 Circuit Analysis I	11
Spring 2016	EG 220 Machines and Power Systems	9
Spring 2016	EG 296 Program Logic Control	13
Spring 2016	EG 297 National Electric Code	18

- (b). If degree is not in area of current assignment, explain.
 Degree is in area of current assignment.
- (c). Identify your professional development activities during the past five years.

FACULTY DATA SHEET

(No more than **TWO** pages per faculty member)

Name Carol Howerton Rank Professor

Check one: Full-time X Part-time _____ Adjunct _____

Highest Degree Earned: MS

Date Degree Received: 1993

Conferred by: WV College of Graduate Studies

Area of Specialization: Information Systems

Professional registration/licensure: _____

Years of employment at present institution: 29

Years of employment in higher education: 29

Years of related experience outside higher education: 1

Non-teaching experience: _____

To determine compatibility of credentials with assignment:

- (a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught). For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	Course Number & Title	Enrollment
Fall 2012	CS 102 Computer Literacy	79
Fall 2012	IT 274 Information Technology Capstone	1
Fall 2012	OR 105 Orientation to Technical Programs	29
Spring 2013	EG 298 Electrical Engineering Technology Capstone	6
Spring 2013	CS 102 Computer Literacy	86
Spring 2013	IT 274 Information Technology Capstone	5
Summer 2013	CS 102 Computer Literacy	14
Fall 2013	EG 298 Electrical Engineering Technology Capstone	9
Fall 2013	IT 274 Information Technology Capstone	5
Fall 2013	OR 105 Orientation to Technical Programs	18
Spring 2014	EG 298 Electrical Engineering Technology Capstone	3
Spring 2014	IT 274 Information Technology Capstone	1
Spring 2014	OR 105 Orientation to Technical Programs	24
Fall 2014	EG 298 Electrical Engineering Technology Capstone	2
Fall 2014	IT 274 Information Technology Capstone	4
Fall 2014	OR 105 Orientation to Technical Programs	62
Spring 2015	EG 298 Electrical Engineering Technology Capstone	7

Year/Semester	Course Number & Title	Enrollment
Fall 2015	EG 298 Electrical Engineering Technology Capstone	4
Fall 2015	IT 274 Information Technology Capstone	5
Spring 2016	EG 298 Electrical Engineering Technology Capstone	15
Spring 2016	IT 274 Information Technology Capstone	20
Fall 2016	IT 274 Information Technology Capstone	3
Spring 2017	EG 298 Electrical Engineering Technology Capstone	7
Spring 2017	IT 274 Information Technology Capstone	8

- (b). If degree is not in area of current assignment, explain.
 Extensive knowledge of the field and the program (key role in development of the program in its present form) makes her an ideal candidate to teach the EG 298-EET Capstone course.
- (c). Identify your professional development activities during the past five years.

FACULTY DATA SHEET

(No more than **TWO** pages per faculty member)

Name William Moseley Rank Instructor

Check one: Full-time X Part-time _____ Adjunct _____

Highest Degree Earned: BSEE
 Date Degree Received: May 1973
 Conferred by: West Virginia Institute of Technology
 Area of Specialization: Electrical Engineering

Professional registration/licensure: _____
 Years of employment at present institution: 8
 Years of employment in higher education: 8
 Years of related experience outside higher education: 33
 Non-teaching experience: 30

To determine compatibility of credentials with assignment:

- (a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught). For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	Course Number & Title	Enrollment
Fall 2012	EG 103 Electrical Calculations	18
Fall 2012	EG 105 Industrial Safety	17
Fall 2012	EG 107 Introduction to Circuits	18
Fall 2012	EG 171 Circuit Analysis I	16
Fall 2012	EG 181 Analog Electronics	10
Fall 2012	EG 214 Electrical Control Systems	10
Spring 2013	EG 172 Circuit Analysis II	13
Spring 2013	EG 214 Electrical Control Systems	13
Spring 2013	EG 220 Machines and Power Systems	8
Spring 2013	EG 296 Program Logic Control	6
Spring 2013	EG 297 National Electric Code	9
Fall 2013	EG 103 Electrical Calculations	15
Fall 2013	EG 105 Industrial Safety	15
Fall 2013	EG 107 Introduction to Circuits	16
Fall 2013	EG 181 Analog Electronics	9
Fall 2013	EG 220 Machines and Power Systems	9
Fall 2013	EG 296 Program Logic Control	10
Fall 2013	EG 297 National Electric Code	11

Year/Semester	Course Number & Title	Enrollment
Spring 2014	EG 123 Electrical Schematics	14
Spring 2014	EG 171 Circuit Analysis I	11
Spring 2014	EG 172 Circuit Analysis II	10
Fall 2014	EG 103 Electrical Calculations	27
Fall 2014	EG 105 Industrial Safety	24
Fall 2014	EG 107 Introduction to Circuits	22
Fall 2014	EG 214 Electrical Control Systems	10
Fall 2014	EG 296 Program Logic Control	10
Fall 2014	EG 297 National Electric Code	2
Spring 2015	EG 123 Electrical Schematics	22
Spring 2015	EG 171 Circuit Analysis I	20
Spring 2015	EG 220 Machines and Power Systems	8
Spring 2015	EG 275 Special Topics: Intro. to Residential Wiring	3
Spring 2015	EG 275 Special Topics: Commercial Wiring	16
Spring 2015	EG 297 National Electric Code	16
Summer 2015	EG 275 Special Topics: Intro. to Residential Wiring	3
Fall 2016	EG 107 Introduction to Circuits	11
Fall 2016	EG 172 Circuit Analysis II	8
Fall 2016	EG 298 EET Capstone	4
Spring 2017	OR 105 Orientation to Technical Programs	13
Spring 2017	EG 171 Circuit Analysis I	13
Spring 2017	EG 172 Circuit Analysis II	9
Spring 2017	EG 220 Machines and Power Systems	4
Spring 2017	EG 290 Digital Electronics	3
Spring 2017	MX 180 PLC Fundamentals	7
Spring 2017	MX 184 PCL Interfacing & HMIS	7
Spring 2017	MX 186 PLC Applications	7

- (b). If degree is not in area of current assignment, explain.
Degree is in area of current assignment.
- (c). Identify your professional development activities during the past five years.

FACULTY DATA SHEET

(No more than **TWO** pages per faculty member)

Name Steven White Rank Instruc. Specialist

Check one: Full-time X Part-time _____ Adjunct _____

Highest Degree Earned: Masters

Date Degree Received: May 2006

Conferred by: University of Fayetteville, Arkansas

Area of Specialization: Operations Management Safety Management

Professional registration/licensure: Yes

Years of employment at present institution: 5

Years of employment in higher education: 11

Years of related experience outside higher education: 33

Non-teaching experience: 22

To determine compatibility of credentials with assignment:

- (a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught). For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	Course Number & Title	Enrollment
Spring 2013	CS 102 Computer Literacy	19
Spring 2013	DR 204 Computer Aided Design and Drafting I	7
Spring 2013	EG 123 Electrical Schematics	14
Fall 2014	DR 204 Computer Aided Design and Drafting I	11
Fall 2014	EG 123 Electrical Schematics	5
Spring 2015	EG 105 Industrial Safety	5
Spring 2015	MX 110 Introduction to Mechatronics	5
Spring 2015	MX 120 Mechanical Power I	3
Spring 2015	MX 130 Fluid Power I	2
Spring 2015	MX 180 PLC Fundamentals	2
Spring 2015	MX 186 PLC Applications	2
Spring 2015	ST 110 Industrial Safety and Risk Management	5
Summer 2015	DR 204 Computer Aided Design and Drafting I	3
Fall 2015	OR 105 Orientation to Technical Programs	35
Fall 2015	EG 103 Electrical Calculations	19
Fall 2015	EG 105 Industrial Safety	9

Year/Semester	Course Number & Title	Enrollment
Fall 2015	EG 107 Introduction to Circuits	17
Fall 2015	MX 110 Introduction to Mechatronics	5
Fall 2015	MX 130 Fluid Power I	5
Fall 2015	MX 220 Mechanical Power II	2
Spring 2016	EG 105 Industrial Safety	13
Spring 2016	EG 107 Introduction to Circuits	13
Spring 2016	MX 110 Introduction to Mechatronics	19
Spring 2016	MX 130 Fluid Power I	36
Spring 2016	MX 190 Industrial Robotics	14
Spring 2016	MX 230 Fluid Power II	12
Spring 2016	TS 275 Special Topics: Mechatronics Capstone	2
Fall 2016	DR 204 Computer Aided Design and Drafting I	14
Fall 2016	EG 171 Circuit Analysis I	7
Fall 2016	EG 214 Electrical Control Systems	21
Fall 2016	MX 220 Mechanical Power II	8
Fall 2016	MX 298 Mechatronics System Design Capstone	3

- (b). If degree is not in area of current assignment, explain.
Degree is in area of current assignment.
- (c). Identify your professional development activities during the past five years.

FACULTY DATA SHEET

(No more than **TWO** pages per faculty member)

Name William Anderson Rank N/A

Check one: Full-time _____ Part-time _____ Adjunct X

Highest Degree Earned: Associates

Date Degree Received: _____

Conferred by: Southern West Virginia Community and Technical College

Area of Specialization: Electrical Engineering

Professional registration/licensure: Master Electrician

Years of employment at present institution: _____

Years of employment in higher education: _____

Years of related experience outside higher education: _____

Non-teaching experience: _____

To determine compatibility of credentials with assignment:

- (a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught). For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	Course Number & Title	Enrollment
Fall 2015	EG 105 Industrial Safety	16
Fall 2015	EG 172 Circuit Analysis II	20
Spring 2016	EG 275 Special Topics: Residential Wiring	6
Fall 2016	EG 181 Analog Electronics	7
Fall 2016	EG 107 Introduction to Circuits	4
Spring 2017	EG 225 Commercial Wiring	9
Spring 2017	EG 297 National Electric Code	8

- (b). If degree is not in area of current assignment, explain.
Degree and licensure are in area of current assignment.
- (c). Identify your professional development activities during the past five years.

FACULTY DATA SHEET

(No more than **TWO** pages per faculty member)

Name Minness Justice Rank N/A

Check one: Full-time _____ Part-time _____ Adjunct X

Highest Degree Earned: _____

Date Degree Received: _____

Conferred by: _____

Area of Specialization: _____

Professional registration/licensure: _____

Years of employment at present institution: _____

Years of employment in higher education: _____

Years of related experience outside higher education: _____

Non-teaching experience: 25+

To determine compatibility of credentials with assignment:

- (a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught). For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	Course Number & Title	Enrollment
Fall 2016	EG 107 Introduction to Circuits	19
Spring 2017	EG 123 Electrical Schematics	9

- (b). If degree is not in area of current assignment, explain.
 Mr. Justice has over 20 years' experience as a federal mine inspector, inspecting electrical work. He is frequently called as an expert witness in court cases involving electrical work.
- (c). Identify your professional development activities during the past five years.

FACULTY DATA SHEET

(No more than **TWO** pages per faculty member)

Name Thomas Bane Rank N/A

Check one: Full-time _____ Part-time _____ Adjunct X

Highest Degree Earned: Bachelors

Date Degree Received: December 1988

Conferred by: California University of Pennsylvania

Area of Specialization: Mathematics and Computer Science

Professional registration/licensure: _____

Years of employment at present institution: .5

Years of employment in higher education: .5

Years of related experience outside higher education: 18

Non-teaching experience: 10

To determine compatibility of credentials with assignment:

- (a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught). For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	Course Number & Title	Enrollment
Fall 2016	CS 102 Computer Literacy	8
Spring 2017	CS 102 Computer Literacy	12
Spring 2017	DR 206 Computer Aided Design and Drafting II	4

- (b). If degree is not in area of current assignment, explain.
 Degree is in area of current assignment.
- (c). Identify your professional development activities during the past five years.

FACULTY DATA SHEET

(No more than **TWO** pages per faculty member)

Name Robert Bryant Rank N/A

Check one: Full-time _____ Part-time _____ Adjunct X

Highest Degree Earned: _____

Date Degree Received: _____

Conferred by: _____

Area of Specialization: _____

Professional registration/licensure: _____

Years of employment at present institution: _____

Years of employment in higher education: _____

Years of related experience outside higher education: _____

Non-teaching experience: _____

To determine compatibility of credentials with assignment:

- (a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught). For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	Course Number & Title	Enrollment
Spring 2017	EG 123 Electrical Schematics	11

- (b). If degree is not in area of current assignment, explain.
Mr. Bryant has many years of experience in industry specializing in electrical and electronics work with a special emphasis in controls.
- (c). Identify your professional development activities during the past five years.

Appendix III Course Enrollments

<u>Term</u>	<u>Subject</u>	<u>Course</u>	<u>Title</u>	<u>Enrolled</u>	<u>FTE</u>
201301	EG	103	Electrical Calculations	18	3.6
201301	EG	105	Industrial Safety	17	1.13
201301	EG	107	Introduction to Circuits	18	4.80
201301	EG	171	Circuit Analysis I	16	4.27
201301	EG	181	Analog Electronics I	10	2.67
201301	EG	214	Electrical Control Systems	10	2.67
201302	EG	123	Electrical Schematics	14	2.8
201302	EG	172	Circuit Analysis II	13	3.47
201302	EG	214	Electrical Control Systems	13	3.47
201302	EG	220	Machines and Power Systems	8	2.13
201302	EG	296	Program Logic Control	6	1.60
201302	EG	297	National Electric Code	9	.60
201302	EG	298	Capstone	6	.40
201401	EG	103	Electrical Calculations	15	3.0
201401	EG	105	Industrial Safety	16	1.07
201401	EG	107	Introduction to Circuits	15	4.0
201401	EG	181	Analog Electronics I	9	2.40
201401	EG	220	Machines and Power Systems	9	2.40
201401	EG	296	Program Logic Control	10	2.67
201401	EG	297	National Electric Code	11	.73
201401	EG	298	Capstone	9	.60
201402	EG	123	Electrical Schematics	13	2.6
201402	EG	123	Electrical Schematics	1	.20
201402	EG	171	Circuit Analysis I	10	2.67
201402	EG	171	Circuit Analysis I	1	.27
201402	EG	172	Circuit Analysis II	10	2.67
201402	EG	298	Capstone	3	.20
201501	EG	103	Electrical Calculations	27	5.4
201501	EG	105	Industrial Safety	24	1.6
201501	EG	107	Introduction to Circuits	15	4.
201501	EG	107	Introduction to Circuits	7	1.87
201501	EG	123	Electrical Schematics	5	1.0
201501	EG	214	Electrical Control Systems	10	2.67
201501	EG	296	Program Logic Control	10	2.67

<u>Term</u>	<u>Subject</u>	<u>Course</u>	<u>Title</u>	<u>Enrolled</u>	<u>FTE</u>
201501	EG	297	National Electric Code	2	.13
201501	EG	298	Capstone	2	.13
201502	EG	103	Electrical Calculations	3	.60
201502	EG	105	Industrial Safety	5	.33
201502	EG	107	Introduction to Circuits	4	1.07
201502	EG	123	Electrical Schematics	22	4.4
201502	EG	171	Circuit Analysis I	20	5.33
201502	EG	220	Machines and Power Systems	8	2.13
201502	EG	275	Commercial Wiring	16	4.27
201502	EG	275	Intro to Residential Wiring	3	.80
201502	EG	297	National Electric Code	16	1.07
201502	EG	298	Capstone	7	.47
201601	EG	103	Electrical Calculations	9	1.80
201601	EG	103	Electrical Calculations	19	3.80
201601	EG	103	Electrical Calculations	5	1.
201601	EG	103	Electrical Calculations	5	1.
201601	EG	103	Electrical Calculations	1	.20
201601	EG	105	Industrial Safety	9	.60
201601	EG	105	Industrial Safety	20	1.33
201601	EG	105	Industrial Safety	1	.07
201601	EG	107	Introduction to Circuits	9	2.4
201601	EG	107	Introduction to Circuits	15	4.
201601	EG	107	Introduction to Circuits	1	.27
201601	EG	107	Introduction to Circuits	4	1.07
201601	EG	107	Introduction to Circuits	4	1.07
201601	EG	123	Electrical Schematics	1	.20
201601	EG	172	Circuit Analysis II	16	4.27
201601	EG	181	Analog Electronics I	15	4
201601	EG	214	Electrical Control Systems	16	4.27
201601	EG	298	Capstone	4	.27
201602	EG	103	Electrical Calculations	14	2.8
201602	EG	105	Industrial Safety	13	.87
201602	EG	107	Introduction to Circuits	13	3.47
201602	EG	123	Electrical Schematics	24	4.8
201602	EG	171	Circuit Analysis I	11	2.93
201602	EG	220	Machines and Power Systems	9	2.4

<u>Term</u>	<u>Subject</u>	<u>Course</u>	<u>Title</u>	<u>Enrolled</u>	<u>FTE</u>
201602	EG	275	Residential Wiring	6	1.60
201602	EG	296	Program Logic Control	13	3.47
201602	EG	297	National Electric Code	18	1.20
201602	EG	298	Capstone	11	.73
201701	EG	103	Electrical Calculations	22	4.4
201701	EG	103	Electrical Calculations	11	2.2
201701	EG	105	Industrial Safety	21	1.4
201701	EG	105	Industrial Safety	15	1
201701	EG	107	Introduction to Circuits	19	5.07
201701	EG	107	Introduction to Circuits	11	2.93
201701	EG	107	Introduction to Circuits	4	1.07
201701	EG	123	Electrical Schematics	6	1.20
201701	EG	171	Circuit Analysis I	4	1.07
201701	EG	171	Circuit Analysis I	3	.80
201701	EG	172	Circuit Analysis II	8	2.13
201701	EG	181	Analog Electronics I	7	1.87
201701	EG	214	Electrical Control Systems	14	3.73
201701	EG	214	Electrical Control Systems	4	1.07
201701	EG	214	Electrical Control Systems	3	.8
201701	EG	298	Capstone	4	.27
201702	EG	123	Electrical Schematics	11	2.2
201702	EG	123	Electrical Schematics	9	1.8
201702	EG	171	Circuit Analysis I	12	3.20
201702	EG	172	Circuit Analysis II	9	2.40
201702	EG	220	Machines and Power Systems	4	1.07
201702	EG	225	Commercial Wiring	9	2.4
201702	EG	290	Digital Electronics	4	1.07
201702	EG	297	National Electric Code	8	.53
201702	EG	298	Capstone	8	.53