

PROGRAM NAME: ELECTRONICS ENGINEERING
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PROGRAM REVIEW CONTACT: TRIPAT BAWEJA
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GUIDELINES

Time Frames:

1. **Scope:**

The time frame of program review is five years, including the year of the review.
Data being reviewed for any item should go back the previous four years, unless not available.

2. **Deadline Dates:**

January 15th – Program Review Document due to Department Dean for review
February 1st – Program Review Document due to Program Review Steering Committee

3. **Years:**

Years 1 & 3 – Implement Action Plan of (CIP) and collect data
Years 2 & 4 – Analyze data and findings, Update Action Plan
Year 5 – Write Program Review of past 4 years; Write Continuous Improvement Plan (CIP) and create new Action Plan

LENGTH OF RESPONSES: Information provided to each question may vary but should be generally kept in the range of 1-2 pages.

EVIDENCE GUIDELINES: In the following sections, you will be asked to provide evidence for assertions made.

a. **Sources:** This evidence may come from various sources including professional accreditation reviews, THECB, Texas Workforce Commission's CREWS, Institutional Research Office, National Student Clearinghouse, IPEDS, EMSI Analyst or EMSI Career Coach, and may be quantifiable and/or qualitative. If you are unfamiliar with any of these information sources, contact David Liska (dliska@collin.edu, 972.985.3714). Use additional data sources of which you are aware.

b. **Examples of Evidence Statements:**

1. Poor example: Core values are integrated into coursework. (Not verifiable)
2. Good example: Core values are integrated into coursework through written reflections. (Verifiable, but general)
3. Better example: Core values are integrating into coursework through written reflections asking the student to describe how s/he will demonstrate each of the core values in his or her professional life and demonstrated through service learning opportunities. (Replicable, Verifiable)

FOR MORE INFORMATION: Any questions regarding this review, including forms, calendars & due dates, should be addressed to Scott Parke (sparke@collin.edu, 972.599.3117) or David Liska (dliska@collin.edu, 972.985.3714) in Policy and Planning/Institutional Effectiveness.

Section I. *Are We Doing the Right Things?*

1. WHAT DOES YOUR WORKFORCE PROGRAM DO?

A. What is the program and its context?

The AAS Electronics Engineering program is designed for students to obtain the associate degree in the field of electronics engineering in order to seek technician level jobs in the electronics manufacturing industry. The electives in robotics, electronics, and energy allow the graduates to select different pathways and seek employment as full time technicians in local semiconductor, electronics, and energy manufacturing sectors.

The core of the curriculum focuses on basic electronics concepts in digital fundamentals and dc/ac circuits to prepare students to design and solve problems using microprocessors. The understanding of the analysis of digital signal processing is applied to teach students to develop and design solutions using linear integrated circuits. Industry standard software such as SolidWorks and Multisim further helps students to integrate electronic hardware with software to accomplish digital and electronic designs. In addition, the program curriculum integrates the concepts of math (algebra and trigonometry) and physics as applicable to practical electronic problem, and social and behavioral sciences to prepare students for workforce interactions.

The program meets the requirements of THECB for workforce with 60 credit hours of coursework including a capstone course.

B. Executive summary: briefly summarize the topics that are addressed in this self-study, including areas of strengths and areas of concern.

The Electronics Engineering Technology program is designed to cater to the local electronics industry. Students are trained to understand the basics of electronics, design and develop projects, and learn to troubleshoot their designs in order to work through the complete design cycle of a product. The program has been modified over the last few years based on direction from its advisory committee members who are knowledgeable of current industry demands and trends. Various curriculum changes are being made effective Fall 2017 to improve the program coursework and student completion rate. The following report analyzes the program's effectiveness in terms of curriculum, industry demand and supply, and student success while supporting the college mission and strategic plan. The areas of concerns are identified with a plan to mitigate them for better success of the program and its graduates. Finally, two specific Curriculum Improvement Plan goals are outlined for the next five years.

2. WHY DO WE DO THE THINGS WE DO: PROGRAM RELATIONSHIP TO THE COLLEGE MISSION, CORE VALUES & STRATEGIC PLAN.

- **Provide program-specific evidence of actions that the program supports the college mission:** *“Collin County Community College District is a student and community-centered institution committed to developing skills, strengthening character, and challenging the intellect.”*

The electronics program offers hands-on projects to develop the required skill-set through application of concepts learned in the classroom. Team projects provide opportunity for peer learning and character building while challenging the students to think outside the box to solve the given problem within required parameters in order to learn the design, development, and testing cycle of the product.

- **Provide program-specific evidence of actions that support the case that the program and its faculty contribute to fulfillment of the college core values:** *“We have a passion for Learning, Service, Involvement, Creativity, Innovation, Academic Excellence, Dignity, Respect and Integrity.”*

In addition to teaching courses in the program, the program faculty are involved in providing mentoring leadership for a chapter of Society of Women Engineers (SWE) and a Robotics club to successfully practice and expose students to the core values of the college. Collin SWE offers local industry tours, resume workshops, mock interviews, industry speakers, and the opportunity to attend regional conferences. These activities instill academic excellence while highlighting the importance and practice of mutual respect, dignity and integrity. Involvement in these networking opportunities help students to sharpen the soft skills required for success in exploring internships and employment in the engineering and technology career. The Robotics club promotes creativity and innovation by offering its members an opportunity to design robots for specific tasks. The department along with SWE and the Robotics club hosts two summer robotics camps every year for area middle and high schoolers as part of a district outreach to promote STEM careers in the community.

- **Provide program-specific evidence that supports how the program supports the college strategic plan:** <https://www.collin.edu/aboutus/index.html>.

- **Finalize and Execute a Comprehensive Plan that Facilitates the Safety of Students, Faculty and Staff at Collin College.**

The program follows standard safety procedures for the safety of students, faculty, and staff. A district-wide initiative is currently underway to review existing safety and security plan and to enhance it. Once this is completed, the program will follow its directives on safety and security.

- **Increase Outreach and Create Streamlined Pathways from High School.**

- The program hosts two summer robotics camps for area middle and high schoolers. The All Girls Camp is an effort to reach out to young girls to encourage them to step into the STEM fields. The programs also offers dual credit classes at Allen High School and Wylie High School as part of pathways leading up to 30 SCH available for high school students for this field. Refer to **Addendum A** for more information. [Emphasize Student Achievement and Streamline Pathways to Four Year College and Universities.](#)

The students in the program are encouraged to participate in the Cultivating Scholars program to show their creative solutions from their class projects to the community. Faculty also nominates highly qualified students to Emerging Scholars recognition to encourage academic excellence. Students also have the opportunity to join Phi Theta Kappa as well as attempt honors courses where applicable.

- [Expand Career and Technical Programs and Training Offerings in Alignment with current and future Regional Labor Market Demand and Become the Customized Training Provider of Choice for Additional Employers.](#)

The electronics program has been consolidated to align with the regional skill set demand by adding and replacing core courses to address the market shift responding to the feedback from the program advisory committee and current industry trends.

- [Promote Innovation and Diversify Revenue Streams.](#)

This goal has district-wide implications. However, at the program level faculty and staff are exploring additional funding from industry as well as potential grants. The program, by its nature (engineering and technology) is involved in innovation. At the classroom level innovation happens in several ways in preparing the students for workforce needs. The combination of project-oriented classes and faculty with industrial backgrounds, provide a stimulating environment for innovation and problem solving. Teaching and Learning that are incorporated in the program prepares students to apply fundamentals and logic to tackle the work challenges that await them in their career.

- [Create an Increasingly Welcoming Environment for Students, Community Members, Faculty and Staff.](#)

This reflects the master plan for the district and follows a plan to re-imagine and renovate facilities, incorporate student-engaging activities, and provide training in customer service.

However, at the program level diversity in the student body, faculty, and staff helps to provide a welcoming environment and reinforce the spirit of inclusion for all students. .

- [Expand the Physical Footprint of Collin College to Meet Emerging Programmatic Needs; Improve Facilities as Necessary, and Implement the Maintenance Plan to Elevate Services to Our Students.](#)

The college master plan incorporates plans to expand the current facilities at the campus, construct a new campus in Wylie, and construct a new Technical Education Center all of which will provide an opportunity expand course offerings from the electronics program.

3. WHY WE DO THE THINGS WE DO: PROGRAM RELATIONSHIP TO STUDENT DEMAND

Make a case with evidence to show that students want the Degree or Certificate, and are able to complete the program.

The following table reflects the number of completers in the last 4 years for this program.

(http://inside.collin.edu/iro/programreview/201617/Measure2a_AwardCompletionsByProgram_2016-17.pdf)

Award Type	Major Code	Counts of Awards by Fiscal Year				
		2012	2013	2014	2015	2016
Electronic Engineering Technology						
Degree	EEBM	0	2	0	0	0
	EENT	0	0	0	1	0
	EETE	0	0	0	4	2
	ENTC	7	7	3	0	0
Degree Total		7	9	3	5	2
Certificate	EEBM	0	2	0	0	0
	EETE	0	0	0	4	3
	ENTC	0	5	2	0	0
Certificate Total		0	7	2	4	3
Electronic Engineering Technology Total		7	16	5	9	5

The number of awards in the program is quite low as evident from the above table. Semiconductor and energy courses have been cancelled over the last few years because of lower enrollment for minimum course enrollment. The downturn in the semiconductor industry in the last 5 years has added to this decline. Looking at this trend, the degree plan was reviewed in July of 2016 by the advisory committee. The board recommended to sunset the Semiconductor Manufacturing degree.

In November of 2016, the advisory committee approved consolidating the Electronics degree after reviewing recommendations from the faculty and administration of the department. It was determined that offering too many diverse elective options was leading to a dispersed student body and compounding the problem of class cancellations and few completers. Also, it was found that competing community colleges in the region were requiring a fewer number of courses for a similar degree. When the state requirement for the degree was adjusted to 60 credit hours, the credit hours of the courses taught were reduced but the number of courses in the degree plan was not changed. This resulted in a program that offered the same degree with more courses and hence more time in college thereby adding to the problem of non-completers. Based upon

these revelations, the advisory committee recommended and approved that the program go back to the original credit hours of the core classes by reducing the number of elective offerings with a focus on electronics and robotics as the two main pathways. The board also approved the addition of a new course, Communication Circuits, to address the current needs of the industry. This would allow the program to become competitive with other area programs and improve retention and completion. This new degree plan has been approved by the Curriculum Advisory Board (CAB) and has been sent for further review and approval by the Academic Leadership Team consisting of the Vice President/Provosts and the Executive Vice President.

4. WHY WE DO THE THINGS WE DO: PROGRAM RELATIONSHIP TO MARKET DEMAND

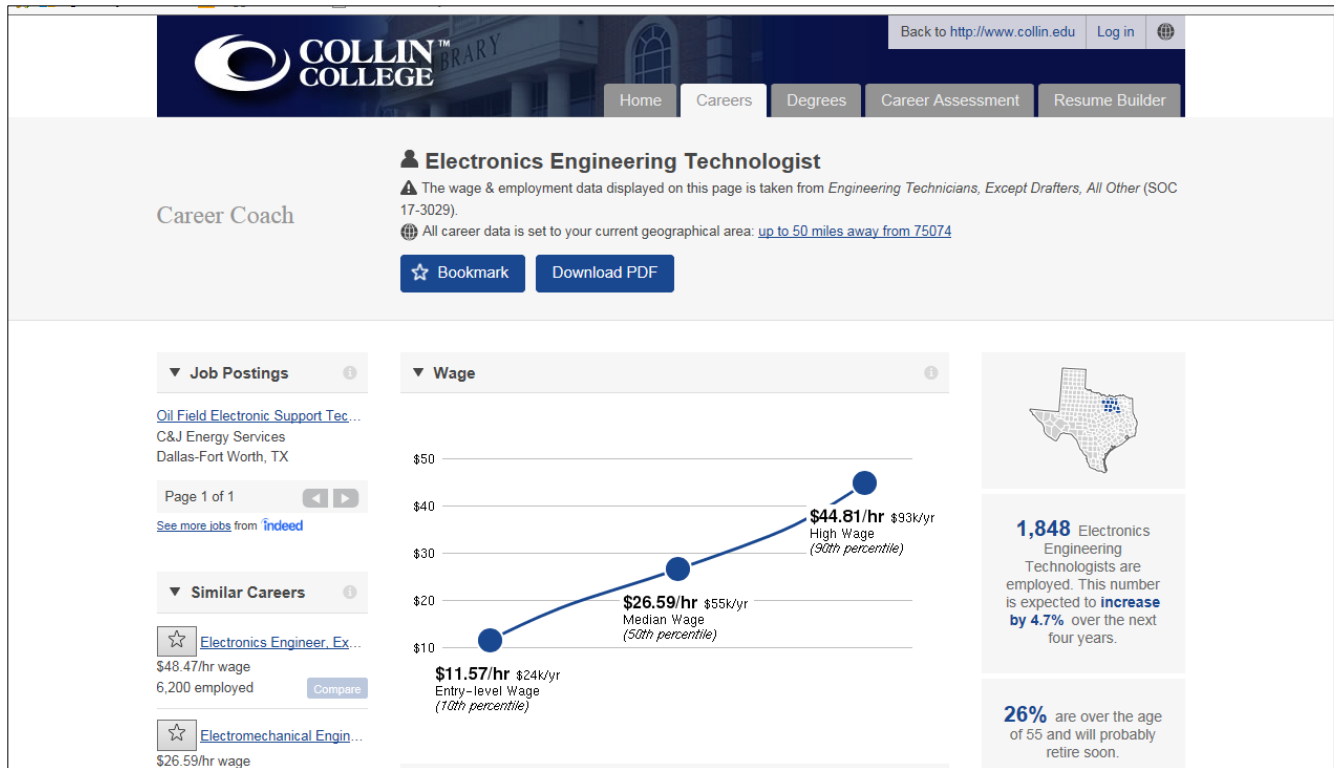
Make a case with evidence to show that employers need and hire the program's graduates.

Suggested Points to consider, but not limited to:

- *How many entry-level jobs are in the DFW Metroplex for people with an associate in a related field?*

Recent job searches for electronics engineering technologist shows 1848 employees in the area with expected increase of employment by 4.7% over the next four years. The data also shows that 26% of the current employees are above 55 years of age and will retire soon. Also, there are 4916 electronics engineering technicians currently employed in the area of which 26% are over the age of 55 and will retire soon. (<https://collin.emsicareercoach.com/#Search=electronics+engineering&action=loadOccupationSearchResults&Clusters=&EdLevel=1&OccSearchSort=employment>)

As per Jacob Kline from Human Resources at Texas Instruments, Texas Instruments alone has a demand for 50 technicians every year for at least the next 5 years.



Electronics Engineering Technologist

⚠ The wage & employment data displayed on this page is taken from *Engineering Technicians, Except Drafters, All Other* (SOC 17-3029).

🌐 All career data is set to your current geographical area: [up to 50 miles away from 75074](#)

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Job Postings

[Oil Field Electronic Support Tec...](#)
C&J Energy Services
Dallas-Fort Worth, TX

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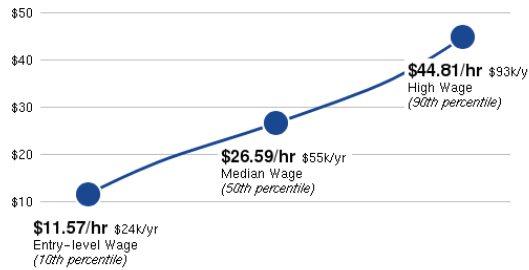
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Similar Careers


☆ [Electronics Engineer, Ex...](#)
\$48.47/hr wage
6,200 employed [Compare](#)

☆ [Electromechanical Engin...](#)
\$26.59/hr wage

Wage



Percentile	Hourly Wage	Annual Salary
10th (Entry-level)	\$11.57/hr	\$24k/yr
50th (Median)	\$26.59/hr	\$55k/yr
90th (High)	\$44.81/hr	\$93k/yr



1,848 Electronics Engineering Technologists are employed. This number is expected to **increase by 4.7%** over the next four years.

26% are over the age of 55 and will probably retire soon.

- *What other competing programs are in the area and how does Collin compare?*

The programs at Dallas Community College at Richland and Tarrant Community College are comparable to what Collin College offers. After comparison of these programs against the Collin program, it was noticed that our competing colleges are still teaching core courses with 4 credit hours which provides more time for learning and projects. To accommodate the 60 credit hour state limit for the workforce programs, they simply reduced the number of courses needed. Collin’s program on the other hand reduced the credit hours of core courses without changing the total number of courses required for the degree. This has resulted in less class/lab time for students in core classes and more overall time spent for students at Collin, and hence less retention and completion.

Also, Richland Community College has already addressed Texas Instruments technician job demand and aligned their program to feed into this pipeline.

- *What proportion of the program’s graduates has related employment within six months of graduation?*

From the data collected, the employment rate amongst graduates varies significantly over the years. That could be the result of varying number of students responding to these data collecting surveys and hence does not provide a clear picture of this measure. (http://inside.collin.edu/iro/programreview/201617/Measure3_Employment_2016-2017.pdf)

*Measure 3
Percentage of Program Completers Employed in the Fourth Quarter of the Year Following Completion and Median Fourth Quarter Wages by CIP Code, Award Level, and Year
Collin College Program Review 2016-2017
FY2011 through FY2015*

CIP Code Title	CIP Code	Award Level	Fiscal Year											
			2011		2012		2013		2014		2015 *			
			Empl. Rate	Median 4th Qtr Wages	Empl. Rate	Median 4th Qtr Wages	Empl. Rate	Median 4th Qtr Wages	Empl. Rate	Median 4th Qtr Wages	Empl. Rate	Median 4th Qtr Wages		
Engineering, General	140101	Assoc.					50%		0%			100%		
Electrical, Electronic and Communications Engineering Technology/Technician	150303	Assoc. Cert.	100%		71%	\$8,490	57%	\$5,531	67%			80%	\$11,167	
Telecommunications Technology/Technician	150305	Assoc. Cert.	67%	\$12,840	100%		100%		50%					

- *How do program salaries compare to high school graduates and those with baccalaureate degrees?*

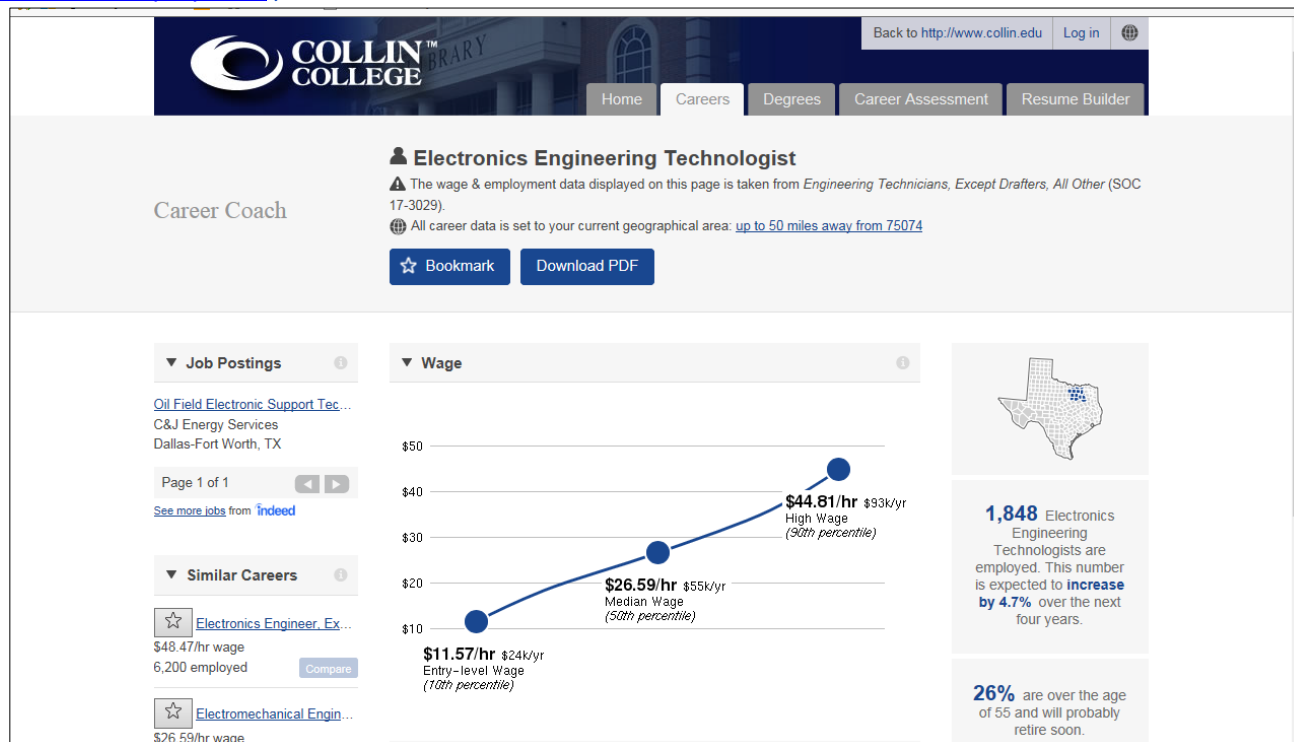
Following information is available from the data maintained by EMSI. (<https://collin.emsicareercoach.com/#Search=electronics+engineering&action=loadOccupationSearchResults&Clusters=&EdLevel=1&OcSearchSort=employment>)

Degree	Entry level wage	Median wage	High wage
High School – Repairers	\$29 k/yr	\$49 k/yr	\$69 k/yr
AAS / Vocational certificate–Electrical Engineering Technician	\$35 k/yr	\$58 k/yr	\$84 k/yr
Bachelor’s Degree- Electronics Engineer	\$67 k/yr	\$101 k/yr	\$152 k/yr

- *What changes are anticipated in market demand in the next 5 years? Do program graduates exceed local demand, is the program able to meet local demand, or does demand exceed the number of program graduates?*

Attending local trade shows like AMCON, and talking to local distributors and company representatives like AVNET, Texas Instruments, Raytheon, and Rackspace, faculty has seen a strong need for manufacturing, repair, and data center technicians. As mentioned earlier, the job research data shows 26% of current employees in this area are over the age of 55 years who will retire soon and therefore the demand for new technicians will rise. In short, there are more jobs in the area than the number of graduates that our program produces.

<https://collin.emsicareercoach.com/#Search=electronics+engineering&action=loadOccupationSearchResults&Clusters=&EdLevel=1&OcSearchSort=employment>



- *How does the program plan to address under or over supply concerns?*

With regards to Texas Instruments' technician jobs, efforts are being made at Collin to identify the gaps in the curriculum to help our graduates to be eligible for these jobs. Quick and simple changes like adding introductory manufacturing information and basics of transistor operations in the existing core classes are being planned. The additions of pneumatics and hydraulic skills that are needed for these jobs requires new courses and lab space which has been brought to the attention of Collin administration as they prepare plans for additional workforce support and resources.

Market needs are being identified through feedback from advisory committee members, attending trade –shows, and talking to various local company representatives to adjust the curriculum to equip the graduates with the current skill set demand. New classes like advanced robotics, communication circuits, and instrumentation are being added to the consolidated degree to address this demand.

- *Identify and discuss the top 3 internal and external graduates' strengths and weaknesses of the program related to market demand.*

External Strengths:

- Our graduates are equipped with a generally, well-rounded electronics skill set that various industries can use to mold in their specific industrial environments.
- Based on the feedback from the advisory committee and employers, our graduates demonstrate solid fundamental concepts and are prepared to be life-long learners.
- Collin College has been recognized by various agencies as a veteran friendly institution that helps to update veterans' skills set to move into civilian industrial jobs.

Internal strengths:

- Graduates receive hands-on experience in project oriented classes while working with various industry platforms and soft-wares like Arduino, Multisim, and SolidWorks in well-equipped labs.
- The department has a highly qualified faculty both in terms of technical education and industry experience.
- Collin offers its students involvement in the local Society of Women Engineers (international professional society) chapter for networking opportunities with local industries, mock interview experiences and resume improving workshops run by working engineers from area companies to enhance their soft skills for job searches.

External Weaknesses:

- The department doesn't offer any exposure to MATLAB – one of the current tools used in the industry

Internal Weaknesses:

- The electronics degree plan offers electives in areas like Biomed and solar energy without any structured platform to address these industries which leads to meager class enrollments and hence cancellations.

- The core courses in the degree plan have no major pre-requirements to enforce right sequence of classes for better student success rate.
- Multiple campuses of the college staggers the program resources.

Section II. Are We Doing Things Right?

5. HOW EFFECTIVE IS OUR CURRICULUM AND HOW DO WE KNOW?

A. Make a case with evidence that there are no curricular barriers to completion. Review the course enrollment, course retention rate, course success rate, and periodic scheduling to identify barriers to program completion.

Suggested Points to consider, but not limited to:

- *Number of students who completed the award in each of the last 4 years? If the number of graduates does not average 5 or more per year, include a plan to increase completers (address concern in Continuous Improvement Plan/CIP)*

Refer to table below for information on completers for the last 4 years

http://inside.collin.edu/iro/programreview/201617/Measure2a_AwardCompletionsByProgram_2016-17.pdf

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	EENT	0	0	0	1	0
	EETE	0	0	0	4	2
	ENTC	7	7	3	0	0
Degree Total		7	9	3	5	2
Certificate	EEBM	0	2	0	0	0
	EETE	0	0	0	4	3
	ENTC	0	5	2	0	0
Certificate Total		0	7	2	4	3
Electronic Engineering Technology Total		7	16	5	9	5

- *How many of your graduates transfer and does this number have an implication for a transfer agreement.*

There is no formal articulation agreement with any organization for our graduates to transfer.

- *At what point(s) are a substantive percentage of students dropping out of the program? Look at the Program-based course performance of the technical courses to see enrollment flow through the program curriculum.*

There is no single identifiable point in the program where the majority of students drop out.

- *Address the number of non-completers and transfers to another institution.*

Refer to table below for number of completers and transfers from the program.

<http://inside.collin.edu/iro/programreview/201617/Measure9StudentBehaviorAfterEnrollment201617.pdf>

<i>Program Review 2016-2017</i>								
<i>Measure 9. Student Behavior After Enrollment by Declared Major</i>								
Major Codes	Students With No Follow-up Information		Students Who Re-enrolled		Students Who Transferred		Students Who Re-enrolled and Transferred	
	Awarded	Non-Awarded	Awarded	Non-Awarded	Awarded	Non-Awarded	Awarded	Non-Awarded
E-Business Development (Continued)								
Program Total:	-	2	16	54	4	15	3	6
Electronic Engineering Technology								
EEBM	-	1	-	1	-	3	-	1
EENT	-	4	3	43	2	18	1	6
EETE	-	9	3	60	1	51	1	17
ENTC	-	1	3	60	2	30	1	14
Program Total:	-	15	9	164	5	102	3	38

- *What are the unaddressed curricular barriers to completion? Review the course enrollment, course retention rate, course success rate, and periodic scheduling to identify barriers to program completion. (Include in CIP)*

Currently, the degree plan has core courses with no pre-requisites of skills identified as needed for the success of students in the classes. This is causing students to enroll in classes for which they are not ready and hence become discouraged and drop-out. Also, the degree plan offers electives in areas like Biomed and solar energy without any structured platform which leads to low class enrollments, more cancellations, and hence less completions.

The roll out of the new consolidated degree plan will help to alleviate these barriers and move the program and the students towards better success.

B. Show evidence that the THECB standards listed below have been met. For any standard not met, describe the plan for bringing the program into compliance.

1. **Credit Hour Standard: There are no more than 60 credit hours in the program plan.**
Number of semester credit hours (SCH) in the program plan: 60 .
2. **Completers Standard: Average 25 completers over the last five years or five completers per year.**
Number of completers: 8.4 (AAS and Certificate) .
3. **Licensure Standard: 90% of first time test takers pass the Licensure exam.**
If applicable, include the licensure pass rate: Not Applicable
4. **Retention Standard: 78% of census day students should earn a grade in the class.**

The following tables reflect the average annual completion and success rates of the classes that ran during each academic year in the program. See **Addendum B** for more details.

<http://inside.collin.edu/iro/programreview/201617/Measure6-ElectronicEngineeringTechnology.pdf>)

Year 2011-12	Completion Rate	Success Rate
BIOM 1280	100 %	100 %
CETT 1403	96.15%	76.55%
CETT 1405	87.5%	87.5%
CETT 1425	80%	70%
CETT 1445	100%	100%
CETT 1457	100%	100%

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CPMT 1405	96.3%	88.6%
CPMT 2302	100%	93.3%
DFTG 1309	86.2%	66.85%
ENGR 1201	92.0%	75.9%
RBTC 1305	100%	86.9%

Year 2012-13	Completion Rate	Success Rate
BIOM 1355	100 %	100 %
CETT 1403	91.4%	69.2%
CETT 1405	100%	100%
CETT 1425	93.8%	50%
CETT 1445	100%	94.1%
CETT 1457	90%	90%
CPMT 1405	96.1%	86.9%
CPMT 2302	100%	88.9%
DFTG 1309	93.3%	67.0%
EECT 1448	90%	75%
ENGR 1201	89.9%	77.1%
HART 2472	100%	100%
RBTC 1305	94.8%	92.3%

Year 2013-14	Completion Rate	Success Rate
CETT 1403	91.6%	84.1%
CETT 1425	82.4%	52.9%
CPMT 1405	96.1%	91.5%
DFTG 1309	85.7%	59.9%
ENGR 1201	93.4%	81.8%
HART 2472	86.9%	66.7%
RBTC 1305	91.2%	79.9%

Year 2014-15	Completion Rate	Success Rate
CETT 1303	92.35%	62.85%
CETT 1305	100%	80%
CETT 1325	100%	40%
DFTG 1309	90.3%	71.4%
EECT 1448	94.4%	72.2%
ENGR 1201	94.1%	85%
RBTC 1305	95.3%	85.8%

Year 2015-16	Completion Rate	Success Rate
CETT 1303	91.1%	70.25%
CETT 1305	91.5%	72.9%
CETT 1325	97.3%	83.8%
CETT 1345	100%	100%
CETT 1357	100%	100%
DFTG 1309	90.6%	68.8%
DFTG 1372	93.5%	87%
ENGR 1201	90.1%	77.8%
RBTC 1305	96.9%	77.5%

For the classes with less than 75% retention, the following actions are being proposed/taken for boosting the retention rate:

- DFTG 1309 – Replaced with DFTG 1372 SolidWorks
- CETT 1403/1303 – Proposal to enforce Pre-requisite/Concurrent enrollment in MATH 1314 for better success
- CETT 1425/1325 – Use of Multisim for better content understanding (visual learning)
- HART 2472 – Course will not be offered under the consolidated degree plan
- EECT 1448 – Enforcement of course sequencing will help students to be more successful in this 2nd year course

C. Make a case that the program curriculum is current.

Points to consider:

- *How does the program curriculum compare to other schools? Review two or three comparable, leading colleges for the way they accomplish these functions. Discuss lessons to be learned and new ideas for improvement.*

The program curriculum as compared to Dallas Community College at Richland and Tarrant Community College is very similar. The big difference being that all the core classes taught at our competing institutions are 4 credit hour vs 3 credit hours at Collin. Also, Richland Community College has already aligned with the Texas Instruments technician job demand as discussed earlier (Refer to section I measure 4).

Collin program has Advisory committee approval to consolidate the Electronics degree and certificate to make core classes as 4 credit hours courses effective Fall 2017. The consolidated degree plan will also include a new core Communication Circuits course to respond to industry demand of RF and other digital communications skills set (Refer to section I measure 4).

- *How does the program curriculum align with any professional association standards or guidelines that may exist?*
Not Applicable
- *If the program curriculum differs significantly from these benchmarks, explain how the Collin College curriculum benefits students and other college constituents.*
Not Applicable

D. Make a case with the Advisory Minutes that the Advisory Committee has employers who are active members that are representative of area employers.

1. How many employers does your Advisory Committee have? 8
(Emerson, Lab Volt, Texas Instruments, Raytheon, National Instruments, St Jude Medical, ONCOR Electric, Ericsson). Refer to **Addendum C** for last advisory committee meeting minutes.
2. How many employers attended the last two meetings? 6
3. How has the Advisory Committee impacted the program over the last years (including latest trends, directions, and insights into latest technologies)?

Advisory Committee members over the last few years have led the conversations about the industry shift towards automation in electronic manufacturing. The need to equip students with some robotic fundamentals, RF technology and in the latest development and testing software skills has resulted in curriculum changes to address these shifts. This in turn has resulted in consolidating the degree that is more focused on core electronics with the addition of the latest tools being used in the industry.

4. Briefly summarize the curriculum recommendations made by the Advisory Committee over the last four years.
The committee members have made various recommendations for curriculum updates including the addition of the SolidWorks course last year and the Communication Circuits course to address RF technology this year. The committee has helped to consolidate the electronics degree core curriculum to focus on electronics rather than spread ourselves in every possible direction within that degree.

Over the last four years, the committee members have also strongly recommended the inclusion of LabVIEW, MATLAB, and Multisim soft-ware to stay current with industry needs and have also made recommendations for updating lab equipment.

E. For any required program courses with enrollment below 15, explain a plan to grow enrollment or revise the curriculum.

The plan to grow enrollment in courses specifically below 15 is to enforce sequencing of the courses by strictly enforcing pre-requisite requirements. This way the student body will stay together and progress forward more of as a group and take classes together to drive up the enrollment. Also, offer courses with typically low enrollment once a year to avoid cancellations of classes which results in students transferring/taking courses at Dallas and Tarrant Community Colleges.

F. Make the case with evidence that the required courses in the program are offered in sequencing or at intervals appropriate to enable students to complete “on time” if a student was enrolled full-time and followed the degree plan.

The required courses in the program are offered in two main sequences as follows:

- CETT 1325 Digital Fundamentals, CETT 1335 Microprocessor, EECT 1348 Digital Signal Processing, CETT 1357 Linear Integrated Circuits
- MATH 1314 College Algebra, CETT 1303 DC Circuits, MATH 1316 Plane Trigonometry, PHYS 1401 College Physics, CETT 1305 AC Circuits

G. Make a case with evidence that students are satisfied with the program.

The following tables show the survey response of the engineering face to face instruction at Collin for Fall 2015 and Spring 2016.

Student Evaluation of Instruction Summary

Department - PRC STEM ENGR

Collin College

Fall 2015

		<i>No Response</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>Not Applicable</i>	<i>Mean</i>	<i>StdDev</i>
	<i>n</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>		
1 Provides information necessary to meet the course goals.	147	3	80	49	9	6	0	1.56	0.79
2 Organizes this course's content well.	147	4	80	37	18	7	1	1.61	0.88
3 Is well prepared for class meetings.	147	0	85	40	14	8	0	1.63	0.87
4 Uses a variety of teaching methods (when appropriate).	147	3	76	35	21	8	4	1.72	0.92
5 Is enthusiastic about the subject of this course.	147	2	101	34	9	1	0	1.38	0.64
6 Seems comfortable with the students in this course	147	0	104	36	3	3	1	1.35	0.63
7 Shows genuine interest in students' ideas.	147	0	97	40	9	1	0	1.41	0.64
8 Explains the material clearly.	147	1	76	37	20	12	1	1.78	0.98
9 Motivates me to do my best work.	147	1	72	53	12	6	3	1.66	0.80
10 Asks questions that challenge me to think.	147	1	80	50	12	2	2	1.56	0.71
11 Treats students with respect.	147	2	106	34	3	2	0	1.32	0.59
12 Uses examples to clarify important concepts.	147	2	83	47	10	5	0	1.57	0.77
13 Makes me feel free to ask questions in class.	147	2	93	42	6	4	0	1.46	0.71
14 Answers questions carefully and completely.	147	2	80	41	17	6	1	1.65	0.85
15 Listens attentively to what students have to say.	147	2	96	40	8	1	0	1.41	0.63
16 Is available for consultation.	147	2	88	41	10	1	5	1.46	0.66
<i>Averages:</i>								1.53	0.75

Student Evaluation of Instruction Summary

Department - PRC STEM ELCT

Collin College

Fall 2015

	<i>n</i>	<i>No Response 0</i>	<i>Strongly Agree 1</i>	<i>Agree 2</i>	<i>Disagree 3</i>	<i>Strongly Disagree 4</i>	<i>Not Applicable 5</i>	<i>Mean</i>	<i>StdDev</i>
1 Provides information necessary to meet the course goals.	15,374	0	8,250	6,750	0	0	0	1.41	0.50
2 Organizes this course's content well.	15,374	0	7,875	4,500	2,250	375	0	1.63	0.82
3 Is well prepared for class meetings.	15,374	0	7,875	6,375	375	375	0	1.55	0.67
4 Uses a variety of teaching methods (when appropriate).	15,374	375	7,500	5,250	1,500	0	375	1.58	0.67
5 Is enthusiastic about the subject of this course.	15,374	0	10,125	4,875	0	0	0	1.33	0.47
6 Seems comfortable with the students in this course	15,374	0	9,750	4,875	375	0	0	1.38	0.53
7 Shows genuine interest in students' ideas.	15,374	0	9,375	4,875	750	0	0	1.43	0.59
8 Explains the material clearly.	15,374	750	7,125	6,000	1,125	0	0	1.58	0.63
9 Motivates me to do my best work.	15,374	0	8,625	4,125	2,250	0	0	1.58	0.74
10 Asks questions that challenge me to think.	15,374	375	9,000	4,875	750	0	0	1.44	0.59
11 Treats students with respect.	15,374	0	9,750	4,875	375	0	0	1.38	0.53
12 Uses examples to clarify important concepts.	15,374	0	9,000	5,625	375	0	0	1.43	0.54
13 Makes me feel free to ask questions in class.	15,374	0	9,000	5,250	750	0	0	1.45	0.59
14 Answers questions carefully and completely.	15,374	0	8,625	5,250	1,125	0	0	1.50	0.63
15 Listens attentively to what students have to say.	15,374	0	8,250	6,375	375	0	0	1.48	0.55
16 Is available for consultation.	15,374	375	8,625	4,875	750	0	375	1.45	0.59
<i>Averages:</i>								1.47	0.60

(Note: This report summary for PRC STEM ELCT department includes BIOM, CETT, CPMT2301, CPMT2371, EECT1348, EECT1448, ELMT, ENTC, HART, INMT, INTC, LOTT, NANO, RBTC and SMFT courses. There is no separate report available for only program related courses.)

Student Evaluation of Instruction Summary

Dept - STEM EECT

Collin College

Spring 2016

	<i>n</i>	<i>No Response 0</i>	<i>Strongly Agree 1</i>	<i>Agree 2</i>	<i>Disagree 3</i>	<i>Strongly Disagree 4</i>	<i>Not Applicable 5</i>	<i>Mean</i>	<i>StdDev</i>
1 Provides information necessary to meet the course goals.	39	0	30	9	0	0	0	1.23	0.43
2 Organizes this course's content well.	39	0	28	10	1	0	0	1.31	0.52
3 Is well prepared for class meetings.	39	0	31	8	0	0	0	1.21	0.41
4 Uses a variety of teaching methods (when appropriate).	39	0	29	8	2	0	0	1.31	0.57
5 Is enthusiastic about the subject of this course.	39	0	33	6	0	0	0	1.15	0.37
6 Seems comfortable with the students in this course	39	0	32	7	0	0	0	1.18	0.39
7 Shows genuine interest in students' ideas.	39	0	32	6	1	0	0	1.21	0.47
8 Explains the material clearly.	39	0	31	7	0	1	0	1.26	0.59
9 Motivates me to do my best work.	39	0	29	8	1	1	0	1.33	0.66
10 Asks questions that challenge me to think.	39	0	29	8	2	0	0	1.31	0.57
11 Treats students with respect.	39	0	31	7	1	0	0	1.23	0.48
12 Uses examples to clarify important concepts.	39	0	31	8	0	0	0	1.21	0.41
13 Makes me feel free to ask questions in class.	39	0	32	5	2	0	0	1.23	0.54
14 Answers questions carefully and completely.	39	0	31	7	1	0	0	1.23	0.48
15 Listens attentively to what students have to say.	39	0	32	7	0	0	0	1.18	0.39
16 Is available for consultation.	39	0	30	7	2	0	0	1.28	0.56
Averages:								1.24	0.49

Student Evaluation of Instruction Summary

Dept - STEM ENGR

Collin College

Spring 2016

	<i>n</i>	<i>No Response 0</i>	<i>Strongly Agree 1</i>	<i>Agree 2</i>	<i>Disagree 3</i>	<i>Strongly Disagree 4</i>	<i>Not Applicable 5</i>	<i>Mean</i>	<i>StdDev</i>
1 Provides information necessary to meet the course goals.	144	0	85	51	5	3	0	1.49	0.67
2 Organizes this course's content well.	144	0	89	45	6	4	0	1.48	0.71
3 Is well prepared for class meetings.	144	0	94	41	7	1	1	1.41	0.62
4 Uses a variety of teaching methods (when appropriate).	144	0	73	44	15	10	2	1.73	0.91
5 Is enthusiastic about the subject of this course.	144	0	98	32	6	6	2	1.44	0.77
6 Seems comfortable with the students in this course	144	0	97	40	4	2	1	1.38	0.61
7 Shows genuine interest in students' ideas.	144	0	98	29	10	5	2	1.45	0.78
8 Explains the material clearly.	144	0	72	52	10	8	2	1.68	0.84
9 Motivates me to do my best work.	144	1	75	44	13	11	0	1.72	0.92
10 Asks questions that challenge me to think.	144	0	91	38	6	5	4	1.46	0.74
11 Treats students with respect.	144	0	102	35	6	1	0	1.35	0.60
12 Uses examples to clarify important concepts.	144	1	92	37	9	5	0	1.49	0.77
13 Makes me feel free to ask questions in class.	144	0	97	39	5	3	0	1.40	0.66
14 Answers questions carefully and completely.	144	0	89	41	10	3	1	1.49	0.72
15 Listens attentively to what students have to say.	144	1	99	37	4	3	0	1.38	0.65
16 Is available for consultation.	144	0	87	43	7	2	5	1.45	0.68
<i>Averages:</i>								1.49	0.73

Student Evaluation of Instruction Summary

Dept - STEM ELCT

Collin College

Spring 2016

	<i>n</i>	<i>No Response 0</i>	<i>Strongly Agree 1</i>	<i>Agree 2</i>	<i>Disagree 3</i>	<i>Strongly Disagree 4</i>	<i>Not Applicable 5</i>	<i>Mean</i>	<i>StdDev</i>
1 Provides information necessary to meet the course goals.	80	1	31	45	2	0	1	1.59	0.54
2 Organizes this course's content well.	80	0	28	42	6	3	1	1.78	0.74
3 Is well prepared for class meetings.	80	1	32	36	7	3	1	1.76	0.78
4 Uses a variety of teaching methods (when appropriate).	80	0	30	35	10	3	2	1.82	0.80
5 Is enthusiastic about the subject of this course.	80	0	43	29	6	1	1	1.56	0.69
6 Seems comfortable with the students in this course	80	0	41	36	2	0	1	1.51	0.55
7 Shows genuine interest in students' ideas.	80	0	38	35	3	2	2	1.60	0.69
8 Explains the material clearly.	80	2	28	35	12	2	1	1.84	0.78
9 Motivates me to do my best work.	80	2	30	35	10	1	2	1.76	0.73
10 Asks questions that challenge me to think.	80	0	38	33	5	2	2	1.63	0.72
11 Treats students with respect.	80	0	47	30	1	1	1	1.44	0.59
12 Uses examples to clarify important concepts.	80	0	34	36	7	1	2	1.68	0.69
13 Makes me feel free to ask questions in class.	80	0	42	34	2	1	1	1.52	0.62
14 Answers questions carefully and completely.	80	1	34	37	6	1	1	1.67	0.68
15 Listens attentively to what students have to say.	80	0	35	40	4	0	1	1.61	0.59
16 Is available for consultation.	80	0	23	46	5	0	6	1.76	0.57
Averages:								1.66	0.67

H. Make a case with evidence that the program is well managed.

Points to consider:

- *Student/Faculty Ratios*

Since all the classes in the program are taught by a single instructor, therefore the average class size addressed in the next step also reflects the student Faculty Ratio (14:1 – 24:1)

- *Average Class Size*

Average class size ranges from 14-24. Refer to **Addendum D** for further details.

<http://inside.collin.edu/iro/programreview/201617/Measure4-ElectronicEngineeringTechnology.pdf>

- *Unduplicated, actual, annual enrollment data*

The following table shows the unduplicated student enrollment data from Fall 2011 to Summer 2016.

<http://inside.collin.edu/iro/programreview/201617/Measure1b-ElectronicEngineeringTechnology.pdf>

*Unduplicated Student Enrollment by Term
Program Review 2016-2017
FY2012 through FY2016*

Electronic Engineering Technology

Term	Unique Student Enrollment Count
FY2012	
Fall 2011	135
Spring 2012	152
Maymester 2012	12
Summer I 2012	68
Summer II 2012	46
FY2013	
Fall 2012	170
Spring 2013	176
Maymester 2013	16
Summer I 2013	130
Summer II 2013	88
FY2014	
Fall 2013	214
Spring 2014	209
Maymester 2014	7
Summer I 2014	103
Summer II 2014	54
FY2015	
Fall 2014	196
Spring 2015	189
Summer 2015	129
FY2016	
Fall 2015	215
Winter 2015	6
Spring 2016	213
Summer 2016	115

- *Grade Distributions –*
Refer to **Addendum B** for details.
(<http://inside.collin.edu/iro/programreview/201617/Measure6-ElectronicEngineeringTechnology.pdf>)
- *Contact Hours Taught by Full-Time and Part-Time Faculty*

Term	Full Time Faculty	Part Time Faculty
Fall 2016	5760 (84%)	1120 (16%)
Fall 2015	5216 (71%)	2160 (29%)
Fall 2014	5680 (100%)	-
Fall 2013	3440 (68%)	1632 (32%)
Fall 2012	8048 (68%)	3760 (32%)

- *Identify all courses that have a success rate below 75%.*
Refer to measure 5B-4 for list of courses with a success rate below 75% and the plan for improvement.
- *How well are the general education requirements integrated with the technical coursework?*
The program includes 12 credit hours of general education out of a 60 credit hour program:
Social / Behavioral sciences – 3 credit hours
Humanities/Fine Arts - 3 credit hours
English Composition – 3 credit hours
Speech – 3 credit hours
- *Student satisfaction: Do you collect any evidence of student satisfaction with the program? What kinds of complaints are made to the dean by program students?*
Student Evaluations are collected at the end of the semester for each class. They are available in the dean’s office for further review.

7. HOW EFFECTIVELY DO WE COMMUNICATE AND HOW DO WE KNOW?

A. Make a case that the program literature and electronic sites are current, provide an accurate representation, and support the program’s recruitment plan, retention plan and completion plan.

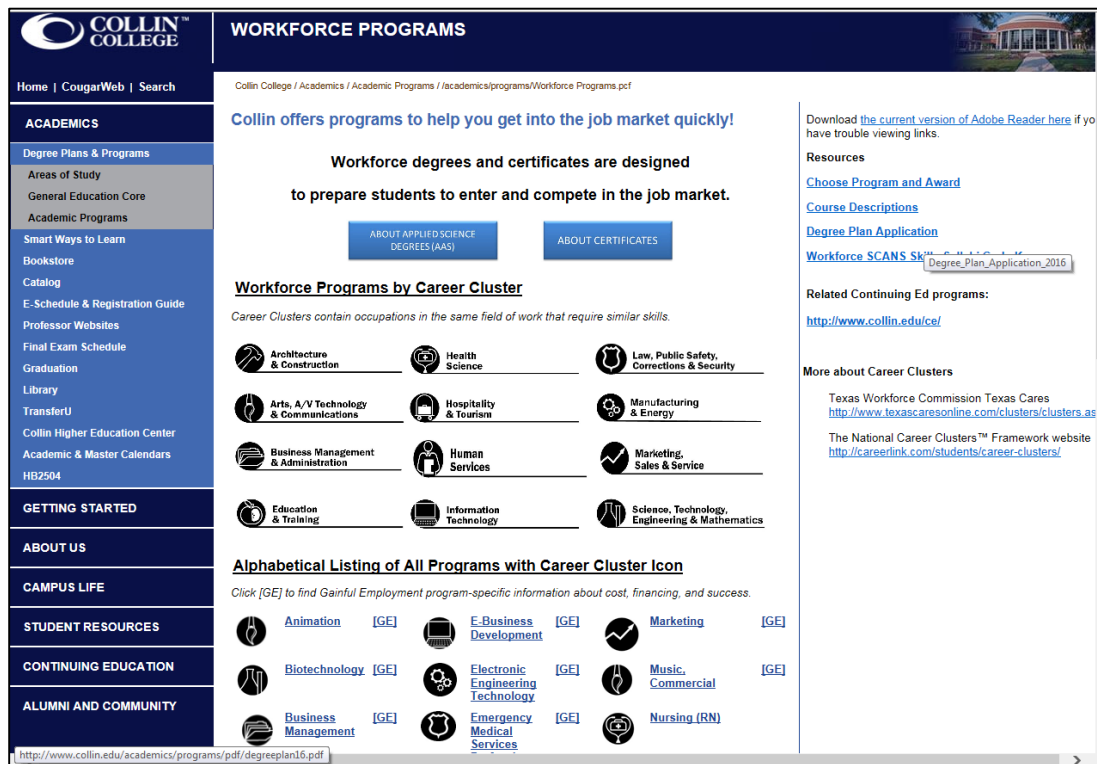
Suggested Points to consider, but not limited to:

- Ask students to give you feedback on your website and literature; incorporate their suggestions as appropriate.

College website and program brochures are updated on a regular basis. Changes in the catalogs are made anytime there is a change in the degree plan. Portable stand-alone banners are used during the camps and technical fairs hosted by the department to promote the electronics program. Presentations about the various options and pathways available in the STEM field in the engineering department at Collin are made on the last day of the robotics camps to educate not only the student campers but also the parents of the campers. Information about the low tuition fees and transfer opportunities are also provided to the prospective families. (<http://www.collin.edu/academics/programs/Workforce%20Programs.aspx>)


B. Provide program website URLs (both the program website and the catalog information posted by the Curriculum Office): If no program website is available, describe plans for creation of website.

The program is listed under “Manufacturing and Energy” career cluster and under alphabetical listing at (<http://www.collin.edu/academics/programs/Workforce%20Programs.aspx>)



The screenshot shows the Collin College Workforce Programs website. The header includes the Collin College logo and the title "WORKFORCE PROGRAMS". A navigation menu on the left lists various academic and student resources. The main content area features a central message: "Collin offers programs to help you get into the job market quickly! Workforce degrees and certificates are designed to prepare students to enter and compete in the job market." Below this are buttons for "ABOUT APPLIED SCIENCE DEGREES (AAS)" and "ABOUT CERTIFICATES". A section titled "Workforce Programs by Career Cluster" lists 12 clusters: Architecture & Construction, Health Sciences, Law, Public Safety, Corrections & Security, Arts, A/V Technology & Communications, Hospitality & Tourism, Manufacturing & Energy, Business Management & Administration, Human Services, Marketing, Sales & Service, Education & Training, Information Technology, and Science, Technology, Engineering & Mathematics. An "Alphabetical Listing of All Programs with Career Cluster Icon" is also provided, listing programs like Animation, E-Business Development, Marketing, Biotechnology, Electronic Engineering Technology, Music, Commercial, Business Management, Emergency Medical Services, and Nursing (RN). A right-hand sidebar contains links for downloading Adobe Reader, resources, and related continuing education programs.

The catalog information is posted at
<http://www.collin.edu/academics/catalog.html>

<p>AAS – Electronic Engineering Technology 60 credit hours</p> <p>FIRST YEAR First Semester CETT 1325 Digital Fundamentals ENGL 1301 <u>Composition I</u> ENGR 1201 Introduction to Engineering MATH 1314 <u>College Algebra</u> RBTC 1305 Robotic Fundamentals</p> <p>Second Semester CETT 1303 DC Circuits CETT 1345 Microprocessor DFTG 1372 SOLIDWORKS Essentials MATH 1316 Plane Trigonometry ELECTRONIC ELECTIVE *</p> <p>Summer <u>GEN ED</u> Select one Social / Behavioral Sciences General Education course SPCH 1321 <u>Business and Professional Communication</u> (See other Speech Options)</p> <p>SECOND YEAR First Semester CETT 1305 AC Circuits <u>GEN ED</u> Select one Humanities / Fine Arts General Education course PHYS 1401 College Physics I SMFT 1371 Fundamentals of Solar Cell Engineering</p> <p>Second Semester CETT 1357 Linear Integrated Circuits EECT 1348 Digital Signal Processing (DSP) HART 2372 Alternative Energy Perspectives, Energy Sources, Energy Storage, and Energy Distribution (Capstone) ELECTRONIC ELECTIVE *</p> <p>* <i>Electronic Electives (6 credit hours): BIOM-1355, BIOM-2380, CETT-1329, INTC-1307, RBTC-2345, or SMFT-1373 will satisfy this requirement. Courses not listed above may be substituted with consent of Program Director.</i></p>	<p>Certificate – Electronic Engineering Technology 26 credit hours</p> <p><i>Any student who has not met Texas Success Initiative (TSI) college-readiness standards must see the Dean to file a degree plan for this certificate before registering for required courses marked with an asterisk.</i></p> <p>FIRST YEAR First Semester CETT 1325 Digital Fundamentals MATH 1314* College Algebra</p> <p>Second Semester CETT 1303 DC Circuits CETT 1345 Microprocessor ENGR 1201 Introduction to Engineering</p> <p>SECOND YEAR First Semester CETT 1305 AC Circuits SMFT 1371 Fundamentals of Solar Cell Engineering</p> <p>Second Semester CETT 1357 Linear Integrated Circuits EECT 1348 Digital Signal Processing (DSP) (Capstone)</p> <div style="text-align: center;">  <p>Emergency Medical Services Professions</p> </div> <hr/> <p>Department Website: http://www.collin.edu/ems</p> <p>Program Options: AAS – Emergency Medical Services Professions Certificate – EMS Paramedic OSA – Emergency Medical Services Professions</p> <p>Collin’s Emergency Medical Services Professions program establishes an excellent foundation for careers in emergency medicine and other related healthcare fields.</p> <p>This program has three options: The OSA – Emergency Medical Services Professions prepares</p>
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2016-17 Collin College Catalog 119
Please refer to <http://www.collin.edu/academics/programs/index.html> for the most current information.

C. Describe the process used to keep all program literature (course descriptions, degree plans, catalog entries, etc.) and electronic sites updated and aligned with district-wide college literature and sites.

The advisory committee and faculty make recommendations for updating the course descriptions and degree plans which are presented for discussion in the advisory committee meeting. The board members vote on the recommendations and approve the necessary changes which are then presented to the Curriculum Advisory committee (CAB). The CAB votes on the recommendations and gives approval for the changes which are sent for further approval to the state level. After all the approvals, the catalog entries are changed.

In addition, faculty also visits the Texas Higher Education Curriculum Board website to check for any changes in descriptions and outcomes of courses every year.

D. Provide the review date (after the close of the last full academic year.) The Program Literature Review Table below indicates the last date check for accuracy on information that is available to the public on the elements of information that are listed on the website and in brochures (current academic calendars, grading policies, course syllabi, program handouts, program tuition costs and additional fees, description of articulation agreements, availability of courses and awards, and local job demand in related fields).

Program Literature Review

Title	Type (i.e. URLs, brochures, handouts, etc.)	Date Last Reviewed and Updated
Academic Calendar	http://www.collin.edu/calendars/	10/13/2015
Grading policy in student handbook	http://www.collin.edu/academics/pdf/20162017Catalog.pdf (pg 34)	09/15/2016

AAS Degree/Certificate	http://www.collin.edu/academics/programs/Workforce%20Programs.aspx	11/22/2016
Syllabi Depot	http://inside.collin.edu/curriculum/Syllabus_Depot.html	07/12/2016
Tuition Costs	http://www.collin.edu/gettingstarted/bursar/tuition.aspx	11/03/2016
Availability of courses	http://www.collin.edu/academics/catalog.html	09/15/2016
Local Job Demand	https://collin.emsicareercoach.com/#Search=electronics+engineering&action=loadOccupationSearchResults&Clusters=&EdLevel=3 https://collin.emsicareercoach.com/#Search=electronics+engineering&action=loadOccupationSearchResults&Clusters=&EdLevel=2	Maintained by EMSI

8. HOW WELL ARE WE LEVERAGING PARTNERSHIP RESOURCES AND BUILDING RELATIONSHIPS, AND HOW DO WE KNOW?

A. Make a case that the program enlists business, industry, government, college, university, and/or consultant partnerships to advance the program outcomes.

The program uses various methods to enlist local businesses to advance program success:

- The Advisory committee for the program consists of representatives from eight local companies who actively participate in promoting the program outcomes.
- The department has established relationships with various local businesses like ONCOR, Db Spectra, Intertek, Okmetic, and UT Southwestern Medical Center for co-op opportunities for the students in the second year of the degree plan.
- The Hiring Team from Texas Instruments has been invited in the last year to give class presentations to students about their technician job market.
- The Talent Acquisition team from Raytheon was invited twice by SWE chapter to host joint Resume workshops to improve and provide positive feedback on student resumes to improve their chances of success at getting jobs.
- Engineers from various local industries like Abott labs, Raytheon, Texas Instruments, Lennox, and Emerson, were invited by SWE chapter once every year for the last two years to help students improve their soft skills through mock interviews.

- Advisory committee members have worked with SWE chapter to provide the students with opportunities to tour Emerson, Raytheon, Abbott Labs, and Pepsico.
- The Department has also invited various speakers from the local industries for its lecture series event hosted once a semester over the last few years.

B. Complete the Partnership Resources Table below.

Partnership Resources

Partner/Organization	Description (See Suggested points to consider)	Brief Description of the Partnership’s Value to the Program
Texas Instruments	Technician job presentations Mock Interview Program	Job opportunities for graduates Help students to better prepare for successful job interviews
Raytheon	Facility Tour Resume workshop	Exposure to students about electronic manufacturing Help improve student resumes with one on one interaction
Emerson Process Management	Facility Tour Mock Interview Program Financial support for Robotics camp Presentations	Information about regulator technology manufacturing business Improving student soft skills. Presentations for Robotics camp
Abbott Labs	Facility Tour	Insight into electronics manufacturing in bio-medical field
Lennox	Mock Interview Program	Improving student soft skills.
State Farm	Financial support for Robotics Camps Robotics Camp Volunteers	Opportunity to do outreach activities
Rockwell Collins	Financial support for Robotics Camp	Opportunity to do outreach activities
Lab Volt	Technical support	Technical support robotic equipment

Keysight	Equipment support	Loan equipment for evaluation and testing
City of Richardson	Presentation	Informative session about Internet of Things
National Instruments	LabView and Multisim Seminars	Support students and faculty with LabView and Multisim softwares used in the classes
ONCOR	Co-op opportunities Robotics Camp Volunteers	Co-op opportunities for electronics program students
Intertek	Co-op opportunities	Co-op opportunities for electronics program students
Okmetic	Co-op opportunities	Co-op opportunities for electronics program students
Db Spectra	Co-op opportunities	Co-op opportunities for electronics program students
UT SW Medical Center	Co-op opportunities	Co-op opportunities for electronics program students

9. ARE WE HIRING QUALIFIED FACULTY AND ADJUNCTS, AND SUPPORTING THEM WELL WITH PROFESSIONAL DEVELOPMENT, AND HOW DO WE KNOW?

Make a case with evidence that faculty are qualified, keep current, and fulfill instructional, scholarship, service and leadership roles that advance the program and the college. List program employees (full-time and part-time), their roles, credentials, and known professional development activity in the last four years.

Suggested Points to consider, but not limited to:

- *Instructional efforts by program faculty*
- *Related scholarship efforts by program faculty*
- *Outreach and engagement efforts by program faculty*
- *Service across the campus by program faculty*

Employee Resources

Employee Name	Role in Program	Credentials	Professional Development since Last Program Review**
Jeff Gibbons	Full Time Faculty	MSc Telecom, SMU, TX BSc Electrical Engineering, UTA, TX Comp TIA A+, Network+, FCC Technicians and radio License Member IEEE	Cyber Security Conference, Collin, 2016, 2015 NSF sponsored Seminar on microprocessors, UH, TX, 2015 IEEE DCAS Conference, UTD, 2014 Working Connections Development Institute, 2014, 2013 IEEE New Technologies Conference, FW, 2012
Tripat Baweja	Full Time Faculty (Hired in 2013)	MTech Computer Technology, ASU, Tempe, AZ MTech Electrical Engineering, PAU, Ludhiana, India BSc Electrical Engineering, PU, Chandigarh, India Professional member SWE	SWE National Conference, Oct, 2016 SWE Region C Conference, Feb, 2016 SWE National Conference, Oct, 2015 TCCA Conference, Feb, 2014

		Member IEEE	Attended various local professional development meetings of Dallas IEEE and Dallas SWE Professional chapters at local industries and universities
Yiping Wang	Full Time Faculty (Hired in 2014)	PhD Electrical Engineering, OU, Norman, OK MSc Electrical Engineering, SU, Shanghai, China BSc Electrical Engineering, SJTU, Shanghai, China Senior member, IEEE	ASEE National Conference, June, 2015 Attended various Dallas IEEE meetings, webinars, and seminars. Cyber Security Conference, Collin, 2015
Jacob Day	Adjunct Faculty	PhD Electrical Engineering, TTU, Lubbock, TX MSc Electrical Engineering, TTU, Lubbock, TX BSc Electrical Engineering, TTU, Lubbock, TX	CTE Department Head at Wylie East HS CTE Engineering Teacher, Wylie East HS Texas SBEC CPE – 97 credits ACE Academy – 48 credits Analog IC Designer, Texas Instruments, 2012-2013
Karl Zimmerman	Adjunct Faculty	PhD Civil Engineering, TAMU, College Station, TX MSc Civil Engineering, UNL, Lincoln, NE BSc Civil Engineering, OU, Norman, OK Member ITE, AREMA, ASCE	Adjunct Faculty for Texas A&M Commerce Developed coursework for courses including Statics, CADD Strengths of Materials, Mechanics of Materials, and Topographical Drafting
Raymond Fant	Adjunct Faculty	BSc Engineering, UNO, New Orleans, LA	District Tech, McKinney ISD Cisco Certified Network Associate (CCNA) Cisco Certified Academy Instructor (CCAI) Certified Wireless Network

			Administrator (CWNA) Hold a FCC license in the 2.4GHz & 5GHz bands
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**For convenience, if providing a listing of professional development activities, this list may be included in this document as an addendum.

10. DO WE SUPPORT THE PROGRAM WELL WITH FACILITIES, EQUIPMENT, AND THEIR MAINTENANCE AND REPLACEMENT, AND HOW DO WE KNOW?

Make a case with evidence that current deficiencies or potential deficiencies related to program facilities, equipment, maintenance, replacement, plans, or budgets pose important barriers to program or student success. As part of your response, complete the Resource Tables below to *support* your narrative.

Classroom Utilization

Classroom/Lab Location	Description (i.e. Special Characteristics)	Meets Needs (Y or N):		Analysis of Classroom Utilization
		Current	For Next 5 Years	
H-150, PRC	Classroom/Lab	Y	N	Needs re-orientation to increase student capacity
H-133, PRC	Classroom/Lab	Y	N	Needs clean up to add new robotics equipment; also needs re-orientation
I-122, SCC	Classroom/Lab	Y	N	Instructor PC needs to be upgraded
I-123, SCC	Classroom/Lab	Y	N	Instructor PC needs to be upgraded

Equipment (\$5,000 or more)

Current Equipment Item or Budget Amount	Description	Meets Needs (Y or N):		For any "N", justify needed equipment or budget change
		Current	For Next 5 Years	
Not Applicable				

Office Space

Office Location	Description	Meets Needs (Y or N):		Analysis of Classroom Utilization
		Current	For Next 5 Years	
F-211, PRC	Faculty Office	Y	Y	
H-216, PRC	Faculty Office	Y	Y	
J-136, SCC	Faculty Office	Y	Y	
K-237, SCC	Associate Faculty Office	Y	Y	
L-222, SCC	Associate Faculty Office	Y	Y	

Financial Resources

Source of Funds (i.e. college budget, grant, etc.)	Meets Needs (Y or N):		For any no in columns 2 or 3, explain why	For any no in columns 2 or 3, identify expected source of additional funds
	Current	For Next 5 Years		
College Budget	Y	Y		

Section III. Continuous Improvement Plan

11. GIVEN OUR PRESENT STATUS, HOW DO WE INTEND TO CHANGE IN WAYS THAT HELP US ADVANCE?

Based on the information, analysis, and discussion that have been presented up to this point, summarize the strengths and weaknesses of this program. There should be no surprise issues here! Describe specific actions the faculty intends to take to capitalize on the strengths, mitigate the weaknesses, and improve student success.

The Electronics Engineering Technology program has evolved over the years with constant feedback and advising from its advisory committee members. The consolidated degree plan will enforce the pre-requisite requirements to mitigate the effect of random course selections which leads to less completers. It will also focus on core electronics curriculum to make it broader in the electronics industry. This plan also responds to the shift in industry needs to include the latest tools like Multisim, LabView and MATLAB to equip graduates with in-demand skill sets for better success.

12. HOW WILL WE EVALUATE OUR SUCCESS?

Complete the Continuous Improvement Plan (CIP) form that follows. The action plan produced by the CIP will begin to be implemented during the next academic year. Include the data summary and findings on which the improvement action is based.

Please select and focus on 2 to 3 program priorities, including at least 1 student learning outcome. You may also add short-term administrative, technological, assessment, resource or professional development goals, as needed.

Department's Mission: To impart design, development and trouble shooting skills to the students to have successful technician career in electronics industry.

A. Outcome(s) Results expected in this program	B. Measure(s) The instrument or process used to measure results	C. Target(s) The level of success expected
Make class size as 18 for classes held in H-150, PRC to justify equipment/student ratio	18 work terminals/tables with 9 equipment stacks	100%
New classes in the consolidated degree plan	Curriculum developed Space and lab equipment Course Offerings Enrollment	100% 100% 100% 50 - 60%

From Part I

A. Outcomes Results expected in this department/program	D. Action Plan Years 5 & 2 Based on analysis of previous assessment, create an action plan and include it here in the row of the outcomes(s) it addresses.	E. Implement Action Plan Years 1 & 3 Implement the action plan and collect data	F. Data Results Summary Years 2 & 4 Summarize the data collected	G. Findings Years 2 & 4 What does data say about outcome?
Make class size as 18 for classes held in H-150, PRC to justify equipment/student ratio				
New classes in the consolidated degree plan				

13. HOW DO OUR IMPROVEMENT PLANS IMPACT THE PROGRAM BUDGET?

A. What additional funding beyond the program’s base budget is needed to implement your Continuous Improvement Plan?

Briefly describe steps your department will take to secure these funds.

Funding will be required to update existing laboratory equipment. These funds will be requested during the college’s budgeting process.

B. With these additional funds, please check which of the following areas will be impacted:

- | | |
|---|---|
| <input type="checkbox"/> Increase and retain enrollment | <input type="checkbox"/> Increase transfers to related baccalaureate institutions |
| <input type="checkbox"/> Increase completers | <input type="checkbox"/> Increase effectiveness and/or efficiency |
| <input type="checkbox"/> Develop resources | <input type="checkbox"/> Improve student performance levels |
| <input checked="" type="checkbox"/> Update facilities | <input type="checkbox"/> Expand services |
| <input type="checkbox"/> Expand curricular opportunities | <input type="checkbox"/> Transform services |
| <input type="checkbox"/> Partner to increase post-graduation employment opportunities | <input type="checkbox"/> Anything else? Briefly describe |

What happens next? The Program Review Report Pathway

- A. Following approval by the Steering Committee,
 - a. Program Review Reports will be evaluated by the Leadership Team.
 - b. Leadership Team will approve the reports for posting on the intranet.
 - c. At any point prior to Intranet posting, reports may be sent back for additional development.

- B. Program responses to the Program Review Steering Committee recommendations received within 30 days will be posted with the Program Review Report at the request of the deans.

Leadership Team members will work with program supervisors to incorporate Program Review findings into program planning and program activity changes during the next five years.

Addendum A

List of dual credit course offerings

<http://www.collin.edu/gettingstarted/dualcredit/Final%20Concurrent%20Enrollment%20Dual%20Credit%20Manual%202015-2016.pdf>

Dual Credit Course Offerings

The most common course offerings for dual credit include:

ECON2301 Principles of Macroeconomics

An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours.

ECON2302 Principles of Microeconomics

Analysis of the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, price and output decisions by firms under various market structures, factor markets, market failures, and international trade. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours.

ENGL1301 Composition I

Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Lab required. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours.

ENGL1302 Composition II

Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions. Lab required. Prerequisite: ENGL 1301. 3 credit hours.

ENGR 1201 Introduction to Engineering *

An introduction to the engineering profession with emphasis on technical communication and team-based engineering design. Prerequisite: MATH 1314 or equivalent academic preparation. 2 credit hours.

GOVT2305 Federal Government

Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours.

GOVT2306 Texas Government

Origin and development of the Texas Constitution, structure and powers of the state and local government, federalism and inter-governmental relations, political participation, the election process, public policy and the political culture of Texas. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours.

HIST1301 U.S. History I

A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours.

HIST1302 U.S. History II

A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period to the present. United States History II examines industrialization, immigration, world wars, the Great Depression, Cold War, and post-Cold War eras. Themes that may be addressed in United States History II include: American culture, religion, civil and human rights, technological change, economic change, immigration and migration, urbanization and suburbanization, the expansion of the federal government, and the study of U.S. foreign policy. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours.

MATH1314 College Algebra

In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Graphing calculator required. Lab required. Prerequisite: Met TSI college-readiness standard for Mathematics; or equivalent. 3 credit hours.

MATH1316 Trigonometry

In-depth study and applications of trigonometry including definitions, identities, inverse functions, solutions of equations, graphing, and solving triangles. Additional topics such as vectors, polar coordinates and parametric equations may be included. Graphing calculator required. Prerequisite: MATH 1314 or MATH 1414; or equivalent. 3 credit hours.

SPCH1311 Fundamentals of Speech Communication

Introduces basic human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking. Prerequisite: Meet TSI college-readiness standard for Reading and Writing; or equivalent. 3 credit hours.

Technical Dual Credit Course Offerings

Technical dual credit classes can enhance a student's education by providing hands-on experience and a chance for them to career search a specific field. Technical dual credit provides ISDs opportunities to explore classes outside of the core curriculum.

For introductory courses such as DC Circuits the student needs to have successfully completed Algebra II at the high school level. When considering technical dual credit, high schools need to be aware of specific equipment needs for the courses and additional time for labs.

A sample of some technical dual credit courses include:

CETT 1403 DC Circuits

A study of the fundamentals of direct current including Ohm's law, Kirchoff's laws and circuit analysis techniques. Emphasis on circuit analysis of resistive networks and DC measurements. Lab required. 4 credit hours.

CETT 1405 AC Circuits

A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance. Lab required. Prerequisite: CETT 1403 or consent of Instructor or Program Director. 4 credit hours.

CPMT 1405 IT Essentials I: PC Hardware and Software

Provides comprehensive overview of computer hardware and software and an introduction to advanced concepts. Lab required. 4 credit hours.

DFTG 1309 Basic Computer-Aided Drafting

An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; and plot/print to scale. Lab required. 3 credit hours.

ITCC 1301 CCNA 1 – Exploring Network Fundamentals (CISCO)

A course introducing the architecture, structure, functions, components, and models of the internet. Describes the use of OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Covers the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Build simple LAN topologies by applying basic principles of cabling; perform basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. Lab required. 3 credit hours.

Additional courses may be added with approval from the school district and Collin College.

Addendum B

Measures 6a and 6b
Grade Distribution, Course Completion, and Course Success Rate by Term
 Collin College Program Review
 FY2012 through FY2016
 Electronic Engineering Technology

Term	Enrollment	Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA **
		A	B	C	D	P	F	W	A	B	C	D	P	F	W			
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	1	1	0	0	0	0	0	0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	4.00
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	-

Note: The program's course list is a composite from 2013-2016 academic catalogs. If rows appear in blue text, this indicates terms in which BIOM1280 was not included in this program's curriculum.
 * Success Rate is calculated by dividing the sums of A, B, C and P grades by the sums of A, B, C, D, P, F & W grades, using the definition consistent with the NCCBP.
 ** Course GPA is calculated by multiplying the count of A, B, C and D by 4, 3, 2 and 1, respectively. The results are added together and divided by the counts of those grades, as well as by the counts of F and W.
 *** Averages may not equal 100 percent due to rounding.

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BIOM1355		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	9	9	0	0	0	0	0	0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	4.00
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	-

CETT1303		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	40	12	11	2	1	0	10	4	30.0%	27.5%	5.0%	2.5%	0.0%	25.0%	10.0%	90.0%	62.5%	2.15
Spring 2015	19	6	3	3	0	0	6	1	31.6%	15.8%	15.8%	0.0%	0.0%	31.6%	5.3%	94.7%	63.2%	2.05
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	29	10	5	4	2	0	5	3	34.5%	17.2%	13.8%	6.9%	0.0%	17.2%	10.3%	89.7%	65.5%	2.24
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	40	16	6	8	3	0	4	3	40.0%	15.0%	20.0%	7.5%	0.0%	10.0%	7.5%	92.5%	75.0%	2.53
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									34.4%	19.5%	13.3%	4.7%	0.0%	19.5%	8.6%	91.4%	67.2%	-

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CETT1305		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	10	7	1	0	0	0	2	0	70.0%	10.0%	0.0%	0.0%	0.0%	20.0%	0.0%	100.0%	80.0%	3.10
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	6	4	1	0	0	0	0	1	66.7%	16.7%	0.0%	0.0%	0.0%	0.0%	16.7%	83.3%	83.3%	3.17
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	8	3	2	0	2	0	1	0	37.5%	25.0%	0.0%	25.0%	0.0%	12.5%	0.0%	100.0%	62.5%	2.50
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									58.3%	16.7%	0.0%	8.3%	0.0%	12.5%	4.2%	95.8%	75.0%	-

CETT1325		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	10	4	0	0	1	0	5	0	40.0%	0.0%	0.0%	10.0%	0.0%	50.0%	0.0%	100.0%	40.0%	1.70
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	37	17	12	2	4	0	1	1	45.9%	32.4%	5.4%	10.8%	0.0%	2.7%	2.7%	97.3%	83.8%	3.03
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									44.7%	25.5%	4.3%	10.6%	0.0%	12.8%	2.1%	97.9%	74.5%	-

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CETT1345		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	11	11	0	0	0	0	0	0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	4.00
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	-

CETT1357		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	9	9	0	0	0	0	0	0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	4.00
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	-

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CETT1403		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	21	5	8	0	0	0	7	1	23.8%	38.1%	0.0%	0.0%	0.0%	33.3%	4.8%	95.2%	61.9%	2.10
Spring 2012	34	17	11	3	1	0	1	1	50.0%	32.4%	8.8%	2.9%	0.0%	2.9%	2.9%	97.1%	91.2%	3.18
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	34	21	2	2	2	0	3	4	61.8%	5.9%	5.9%	5.9%	0.0%	8.8%	11.8%	88.2%	73.5%	2.82
Spring 2013	37	16	7	1	5	0	6	2	43.2%	18.9%	2.7%	13.5%	0.0%	16.2%	5.4%	94.6%	64.9%	2.49
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	20	7	6	3	1	0	2	1	35.0%	30.0%	15.0%	5.0%	0.0%	10.0%	5.0%	95.0%	80.0%	2.65
Spring 2014	17	6	6	3	0	0	0	2	35.3%	35.3%	17.6%	0.0%	0.0%	0.0%	11.8%	88.2%	88.2%	2.82
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									44.2%	24.5%	7.4%	5.5%	0.0%	11.7%	6.7%	93.3%	76.1%	-

CETT1405		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	16	14	0	0	0	0	0	2	87.5%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	87.5%	87.5%	3.50
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	11	11	0	0	0	0	0	0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	4.00
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									92.6%	0.0%	0.0%	0.0%	0.0%	0.0%	7.4%	92.6%	92.6%	-

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CETT1425		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	20	6	5	3	0	0	2	4	30.0%	25.0%	15.0%	0.0%	0.0%	10.0%	20.0%	80.0%	70.0%	2.25
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	16	5	2	1	1	0	6	1	31.3%	12.5%	6.3%	6.3%	0.0%	37.5%	6.3%	93.8%	50.0%	1.81
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	17	4	4	1	3	0	2	3	23.5%	23.5%	5.9%	17.6%	0.0%	11.8%	17.6%	82.4%	52.9%	1.94
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									28.3%	20.8%	9.4%	7.5%	0.0%	18.9%	15.1%	84.9%	58.5%	-

CETT1445		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	18	15	3	0	0	0	0	0	83.3%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	3.83
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	17	12	4	0	0	0	1	0	70.6%	23.5%	0.0%	0.0%	0.0%	5.9%	0.0%	100.0%	94.1%	3.53
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									77.1%	20.0%	0.0%	0.0%	0.0%	2.9%	0.0%	100.0%	97.1%	-

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CETT1457		Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA **
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W			
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	19	19	0	0	0	0	0	0	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	4.00
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	20	18	0	0	0	0	0	2	90.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%	90.0%	90.0%	3.60
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									94.9%	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	94.9%	94.9%	-

CPMT1405		Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA **
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W			
Fall 2011	69	38	20	5	0	0	5	1	55.1%	29.0%	7.2%	0.0%	0.0%	7.2%	1.4%	98.6%	91.3%	3.22
Spring 2012	51	32	12	0	0	0	3	4	62.7%	23.5%	0.0%	0.0%	0.0%	5.9%	7.8%	92.2%	86.3%	3.22
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	17	10	3	2	1	0	1	0	58.8%	17.6%	11.8%	5.9%	0.0%	5.9%	0.0%	100.0%	88.2%	3.18
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	72	33	26	5	1	0	6	1	45.8%	36.1%	6.9%	1.4%	0.0%	8.3%	1.4%	98.6%	88.9%	3.07
Spring 2013	69	39	15	4	0	0	8	3	56.5%	21.7%	5.8%	0.0%	0.0%	11.6%	4.3%	95.7%	84.1%	3.03
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	33	8	17	4	0	0	2	2	24.2%	51.5%	12.1%	0.0%	0.0%	6.1%	6.1%	93.9%	87.9%	2.76
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	89	45	18	14	1	0	5	6	50.6%	20.2%	15.7%	1.1%	0.0%	5.6%	6.7%	93.3%	86.5%	2.96
Spring 2014	51	29	15	4	0	0	2	1	56.9%	29.4%	7.8%	0.0%	0.0%	3.9%	2.0%	98.0%	94.1%	3.31
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	33	19	9	3	0	0	1	1	57.6%	27.3%	9.1%	0.0%	0.0%	3.0%	3.0%	97.0%	93.9%	3.30
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									52.3%	27.9%	8.5%	0.6%	0.0%	6.8%	3.9%	96.1%	88.6%	-

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CPMT2302		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	15	11	3	0	1	0	0	0	73.3%	20.0%	0.0%	6.7%	0.0%	0.0%	0.0%	100.0%	93.3%	3.60
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	18	14	2	0	0	0	2	0	77.8%	11.1%	0.0%	0.0%	0.0%	11.1%	0.0%	100.0%	88.9%	3.44
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									75.8%	15.2%	0.0%	3.0%	0.0%	6.1%	0.0%	100.0%	90.9%	-

DFTG1309		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	107	34	10	16	5	0	19	23	31.8%	9.3%	15.0%	4.7%	0.0%	17.8%	21.5%	78.5%	56.1%	1.90
Spring 2012	98	52	17	7	2	0	14	6	53.1%	17.3%	7.1%	2.0%	0.0%	14.3%	6.1%	93.9%	77.6%	2.81
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	93	48	12	7	5	0	16	5	51.6%	12.9%	7.5%	5.4%	0.0%	17.2%	5.4%	94.6%	72.0%	2.66
Spring 2013	61	14	14	10	3	0	11	9	23.0%	23.0%	16.4%	4.9%	0.0%	18.0%	14.8%	85.2%	62.3%	1.98
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	18	7	3	2	1	0	5	0	38.9%	16.7%	11.1%	5.6%	0.0%	27.8%	0.0%	100.0%	66.7%	2.33
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	96	44	12	14	4	0	9	13	45.8%	12.5%	14.6%	4.2%	0.0%	9.4%	13.5%	86.5%	72.9%	2.54
Spring 2014	72	32	5	8	4	0	14	9	44.4%	6.9%	11.1%	5.6%	0.0%	19.4%	12.5%	87.5%	62.5%	2.26
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	18	4	4	0	0	0	7	3	22.2%	22.2%	0.0%	0.0%	0.0%	38.9%	16.7%	83.3%	44.4%	1.56
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	90	45	12	4	6	0	14	9	50.0%	13.3%	4.4%	6.7%	0.0%	15.6%	10.0%	90.0%	67.8%	2.56
Spring 2015	64	25	15	8	1	0	9	6	39.1%	23.4%	12.5%	1.6%	0.0%	14.1%	9.4%	90.6%	75.0%	2.53
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	57	22	10	5	5	0	8	7	38.6%	17.5%	8.8%	8.8%	0.0%	14.0%	12.3%	87.7%	64.9%	2.33
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	77	37	12	7	1	0	15	5	48.1%	15.6%	9.1%	1.3%	0.0%	19.5%	6.5%	93.5%	72.7%	2.58
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									42.8%	14.8%	10.3%	4.3%	0.0%	16.6%	11.2%	88.8%	67.9%	-

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DFTG1372		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	24	15	4	2	0	0	1	2	62.5%	16.7%	8.3%	0.0%	0.0%	4.2%	8.3%	91.7%	87.5%	3.17
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	22	12	5	2	0	0	2	1	54.5%	22.7%	9.1%	0.0%	0.0%	9.1%	4.5%	95.5%	86.4%	3.05
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									58.7%	19.6%	8.7%	0.0%	0.0%	6.5%	6.5%	93.5%	87.0%	-

EECT1448		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	20	11	2	2	0	0	3	2	55.0%	10.0%	10.0%	0.0%	0.0%	15.0%	10.0%	90.0%	75.0%	2.70
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	18	11	1	1	0	0	4	1	61.1%	5.6%	5.6%	0.0%	0.0%	22.2%	5.6%	94.4%	72.2%	2.72
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									57.9%	7.9%	7.9%	0.0%	0.0%	18.4%	7.9%	92.1%	73.7%	-

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ENGR1201		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	123	44	35	18	6	0	11	9	35.8%	28.5%	14.6%	4.9%	0.0%	8.9%	7.3%	92.7%	78.9%	2.63
Spring 2012	92	27	27	13	4	0	13	8	29.3%	29.3%	14.1%	4.3%	0.0%	14.1%	8.7%	91.3%	72.8%	2.38
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	142	51	34	26	1	0	14	16	35.9%	23.9%	18.3%	0.7%	0.0%	9.9%	11.3%	88.7%	78.2%	2.53
Spring 2013	112	42	22	21	7	0	10	10	37.5%	19.6%	18.8%	6.3%	0.0%	8.9%	8.9%	91.1%	75.9%	2.53
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	166	82	44	12	4	0	9	15	49.4%	26.5%	7.2%	2.4%	0.0%	5.4%	9.0%	91.0%	83.1%	2.94
Spring 2014	92	20	34	20	5	0	9	4	21.7%	37.0%	21.7%	5.4%	0.0%	9.8%	4.3%	95.7%	80.4%	2.47
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	171	52	65	23	4	0	15	12	30.4%	38.0%	13.5%	2.3%	0.0%	8.8%	7.0%	93.0%	81.9%	2.65
Spring 2015	93	20	36	12	6	0	9	10	21.5%	38.7%	12.9%	6.5%	0.0%	9.7%	10.8%	89.2%	73.1%	2.34
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	7	5	1	1	0	0	0	0	71.4%	14.3%	14.3%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	3.57
Fall 2015	120	51	30	20	4	0	6	9	42.5%	25.0%	16.7%	3.3%	0.0%	5.0%	7.5%	92.5%	84.2%	2.82
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	94	13	39	14	1	0	11	16	13.8%	41.5%	14.9%	1.1%	0.0%	11.7%	17.0%	83.0%	70.2%	2.11
Summer 2016	19	7	6	2	1	0	2	1	36.8%	31.6%	10.5%	5.3%	0.0%	10.5%	5.3%	94.7%	78.9%	2.68
Averages***									33.6%	30.3%	14.8%	3.5%	0.0%	8.9%	8.9%	91.1%	78.7%	-

HART2472		Grade Assigned							Grade Distribution							Completion	Success	Course
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W	Rate	Rate*	GPA **
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	17	11	6	0	0	0	0	0	64.7%	35.3%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	3.65
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	18	9	3	0	0	0	4	2	50.0%	16.7%	0.0%	0.0%	0.0%	22.2%	11.1%	88.9%	66.7%	2.50
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									57.1%	25.7%	0.0%	0.0%	0.0%	11.4%	5.7%	94.3%	82.9%	-

WORKFORCE PROGRAM REVIEW

2016

RBTC1305		Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA **
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W			
Fall 2011	19	12	1	3	1	0	2	0	63.2%	5.3%	15.8%	5.3%	0.0%	10.5%	0.0%	100.0%	84.2%	3.05
Spring 2012	19	17	0	0	0	0	2	0	89.5%	0.0%	0.0%	0.0%	0.0%	10.5%	0.0%	100.0%	89.5%	3.58
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	19	14	3	0	0	0	0	2	73.7%	15.8%	0.0%	0.0%	0.0%	0.0%	10.5%	89.5%	89.5%	3.42
Spring 2013	20	12	7	0	0	0	1	0	60.0%	35.0%	0.0%	0.0%	0.0%	5.0%	0.0%	100.0%	95.0%	3.45
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	19	15	0	0	0	0	1	3	78.9%	0.0%	0.0%	0.0%	0.0%	5.3%	15.8%	84.2%	78.9%	3.16
Spring 2014	52	28	7	7	1	0	8	1	53.8%	13.5%	13.5%	1.9%	0.0%	15.4%	1.9%	98.1%	80.8%	2.85
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	21	8	9	0	0	0	2	2	38.1%	42.9%	0.0%	0.0%	0.0%	9.5%	9.5%	90.5%	81.0%	2.81
Spring 2015	42	27	8	3	0	0	4	0	64.3%	19.0%	7.1%	0.0%	0.0%	9.5%	0.0%	100.0%	90.5%	3.29
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	16	8	3	2	2	0	0	1	50.0%	18.8%	12.5%	12.5%	0.0%	0.0%	6.3%	93.8%	81.3%	2.94
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	19	4	7	3	1	0	4	0	21.1%	36.8%	15.8%	5.3%	0.0%	21.1%	0.0%	100.0%	73.7%	2.32
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									58.9%	18.3%	7.3%	2.0%	0.0%	9.8%	3.7%	96.3%	84.6%	-

SMFT1471		Grade Assigned							Grade Distribution							Completion Rate	Success Rate*	Course GPA **
Term	Enrollment	A	B	C	D	P	F	W	A	B	C	D	P	F	W			
Fall 2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2012	20	15	3	1	0	0	1	0	75.0%	15.0%	5.0%	0.0%	0.0%	5.0%	0.0%	100.0%	95.0%	3.55
Maymester 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer I 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer II 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maymester 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fall 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter 2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spring 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summer 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Averages***									75.0%	15.0%	5.0%	0.0%	0.0%	5.0%	0.0%	100.0%	95.0%	-

Addendum C

Advisory Committee Meeting Minutes

CHAIRPERSON: Tom Fredricks		
MEETING DATE: November 4, 2016	MEETING TIME: 2:00-3:30pm	MEETING PLACE: Preston Ridge Campus LH 113
RECORDER: Nancy Huff		PREVIOUS MEETING: June 1, 2016

MEMBERS PRESENT: (Yes/No)

OTHERS PRESENT:

	Name and Title		Name and Title		Name and Title
Y	Tom Fredricks VP Engineering Emerson	Y	Tracy Johnson Section Manager Raytheon	Y	Tripat Baweja Professor Collin College
Y	Aaron Paul Regional Sales Representative Lab Volt (phone in)	N	Mike Campbell, Sr. Medical Device Engineer St. Jude Medical	Y	Jeff Gibbons Professor Collin College
N	Byron Williams, Senior Process Integration Engineer Texas Instruments	N	Buddy Phillips Transmission Area Supervisor Oncor Electric	Y	Kate Smith Lead Technical Advisor Collin College
Y	Phil Hecker DFAB Engineering Manager Texas Instruments	Y	Jacob Day Wylie ISD Engineering Teacher	Y	Larry Maughan Co-op Coordinator Collin College
N	Peter Semig Applications Engineer, Texas Instruments	N	Alex Machoka Oncor Electric	Y	Yiping Wang Professor Collin College
N	Glenn Martin Director Systems Development Center Raytheon	N	Thomas Lubeskie VP Chief Technology Officer Ericsson	Y	Nancy Huff Admin AA and Workforce
Y	Jason Ritacco Manager Advanced			N	Michael Coffman Assoc. Dean

	Manufacturing Center Raytheon				AA and Workforce
N	Charlie Moore District Sales Manager National Instruments			N	James Barko Dean AA and Workforce
				Y	Jeff Fant Professor Collin College

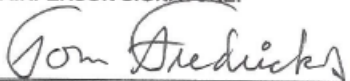
Agenda Item	Action Discussion Information	Responsibility
Old Business:	Role of Advisory Board members	Tom Fredricks
Continuing Business	Dual Credit update	Jacob Day
	Robotics update-including robotics camp	Yiping Wang
	Richland Visit and TI presentation on campus	Tripat Baweja
	Internships	Larry Maughan
New Business:	AAS Electronic Engineering Technology Proposal	Tripat Baweja
Other:		

MINUTES

Key Discussion Points	Discussion
Old Business:	Tom Fredricks discussed the role of the AB members and went through the guidelines. One point Tom suggested was the need to tour Collin College to look at equipment in order to make better determination of what is needed. On the other side, Jason Riacco suggested to meet at different companies to see what equipment is in the industry as well as schedule tours for students. Jeff Fant suggested tours through student organizations only as a way to improve participation in the organization. Phil Hecker also offered a meeting space and tour at TI as an option.
Continuing Business:	Tripat Baweja spoke about the recent visit by Texas Instruments to engineering classes and the need for support to grow pipeline by analyzing our resources and identifying the gaps in the curriculum that can be bridged quickly to help students pass the TI technician job exam. She also talked about the visit to Richland College to see their new building and resources they have assigned for feeding into this pipeline. The possibility to invite Oncor along with TI for class presentations was also suggested.
	Jacob Day gave an update on Dual Credit in WylieISD. The issues he faces are the students that take dual credit typically don't come to Collin, they go to a 4yr school after high school. How can we reach the students that aren't top 10% (fall in 20%-60% category) but have the skills to take DC class and become candidates for Collin. He asked industry professionals if they would consider scholarships in order to entice students to Collin.
	Yiping Wang gave an update on Summer Robotics Camp scheduled for July 2017 at PRC. Two one-week sessions back to back will be offered to avoid repetitive setup and removal of equipment. Changing to 5 half days from 3 full days allows for better engagement of the campers (students were slowing down after lunch during full day camps), and also help with food logistics since no lunch will be provided. He asked the industry in attendance for any funding they could provide.

	Collin student Robotics club is now meeting on SCC as well at PRC-SCC on Mondays, PRC on Fridays.
	Tripat Baweja gave a SWE update. Last year she took 4 members to Regional conference of SWE in Arkansas, and this year she is looking to take 6 members to conference in College Station. The chapter has been offering workshops to the students on mock interviews and resumes with the help of TI, Raytheon, Emerson, Lennox, and Abott Labs. Jason Ritacco asked Tripat to email him information on SWE for possible support and stated that they are always looking for qualified female candidates. Phil Hecker talked about TI doing non-traditional interviews where candidates work on a project together with TI professionals watching in order to determine best candidates to hire. He offered collaboration with Collin SWE on such programs in the future.
	Larry Maughan stated that internships are growing. Electronics Engg interns have decreased because some interns were hired full time. He asked if any industry had opening, please let him know.
New Business	Tripat Baweja proposed to go back to original credit hours of 6 six core courses before the total credit hours were dropped to 60 for the associate degree by the state by decreasing elective courses. This will keep us consistent with other programs in the area and also help increase completers. Decreasing elective courses back to 2 will lead to less class cancellations because of limited elective options. Kate Smith suggested 2 tracks, robotics and general electronics. Phil Hecker suggested Solid State course in a 4 yr. degree but not in 2 yr. degree. He wanted to see some exposure of AC/DC motors and the energy side. Yiping Wang stated DC motors was taught in 1 st robotics course. Phil Hecker also talked about the need for repair and maintenance specialists-his company has to send out 100K robots to get repaired because they don't have anyone in house. Jeff Gibbons asked about Labview and DSP use. Phil Hecker stated that they don't use Labview (they have internal system). Tripat asked SolidState vs DSP to be included in the core, Phil suggested DSP is better. Jason Ritacco's company uses Labview, so exposure to it is desirable. He suggested that skills related to repair, design, and ability to modify robots can be useful additions in some robotics course. Tracy Johnson suggested inclusion of Matlab skills as a way for students to get in the door at companies. Jeff Gibbons highlighted that Agilent has Matlab drivers but we need site license for Matlab to include it in any course.

	<p>Tripat Baweja also told the board the AAS Semiconductor degree paperwork for its deletion is ready and that she will be going to CAB for approval in the near future.</p>
Curriculum Decisions:	<p>Phil Hecker suggested that we remove Solid State course and instead add DSP as core. Tripat Baweja suggested Communication or Instrumentation classes as elective. Tom Fredricks asked for a motion, Phil Hecker made a motion and it was seconded by Jason Ritacco that we remove Solid State, keep DSP in the core curriculum and add Communications or Instrumentation course as an elective. The motion was passed unanimously.</p>
Other	<p>Jeff Gibbons asked if Industrial CCNA was needed? Was Ethernet needed? Phil Hecker stated his company uses WIFI primarily. Jason Ritacco stated they were using in house applications-custom built for security purposes.</p> <p>The meeting was adjourned for a student presentation at 3:31pm.</p>

CHAIRPERSON SIGNATURE: 	DATE: November 10, 2016	NEXT MEETING: Spring 2017
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Addendum D

WORKFORCE PROGRAM REVIEW

2016

Measure 4
Average Class Size by Term
Collin College
FY2012 through FY2016
Electronic Engineering Technology

Courses	FY2012					FY2013					FY2014					FY2015			FY2016			
	Fall 2011	Spring 2012	Maymester 2012	Summer I 2012	Summer II 2012	Fall 2012	Spring 2013	Maymester 2013	Summer I 2013	Summer II 2013	Fall 2013	Spring 2014	Maymester 2014	Summer I 2014	Summer II 2014	Fall 2014	Spring 2015	Summer 2015	Fall 2015	Winter 2015	Spring 2016	Summer 2016
BIOM1280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BIOM1355	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BIOM2280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BIOM2380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CETT1303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	19	-	14.5	-	-	-
CETT1305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	6	-	-	-
CETT1325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	12.3	-	-	-
CETT1329	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CETT1345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CETT1357	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CETT1403	21	17	-	-	-	8.5	18.5	-	-	-	20	17	-	-	-	-	-	-	-	-	-	-
CETT1405	16	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CETT1425	20	-	-	-	-	16	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-
CETT1429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CETT1445	-	18	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CETT1457	-	19	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CPMT1405	17.3	17	-	17	-	14.4	13.8	-	16.5	-	14.8	17	-	16.5	-	-	-	-	-	-	-	-
CPMT2302	-	15	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DFTG1309	21.4	19.6	-	-	-	18.6	20.3	-	18	-	19.2	18	-	18	-	18	16	-	19	-	-	-
DFTG1372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-
ECON1301	30.9	27.7	-	16.5	-	30.6	29.5	-	21.5	-	30.4	29.9	-	26	14	30.7	27.5	24.3	29.5	-	17	-
EECT1348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EECT1448	-	-	-	-	-	20	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-
ENGR1201	20.5	23	-	-	-	17.8	16	-	-	-	16.6	23	-	-	-	24.4	23.3	7	20	-	19	-
HART2372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HART2472	-	-	-	-	-	17	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-
INTC1307	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RBTC1305	19	19	-	-	-	19	20	-	-	-	19	17.3	-	-	-	21	21	-	16	-	-	-
RBTC2345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SMFT1371	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SMFT1375	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

WORKFORCE PROGRAM REVIEW

2016

Measure 4
Average Class Size by Term
Collin College
FY2012 through FY2016
Electronic Engineering Technology (continued)

Courses	FY2012					FY2013					FY2014					FY2015			FY2016			
	Fall 2011	Spring 2012	Maymester 2012	Summer I 2012	Summer II 2012	Fall 2012	Spring 2013	Maymester 2013	Summer I 2013	Summer II 2013	Fall 2013	Spring 2014	Maymester 2014	Summer I 2014	Summer II 2014	Fall 2014	Spring 2015	Summer 2015	Fall 2015	Winter 2015	Spring 2016	Summer 2016
SMFT1471	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SMFT1475	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: If present, values in blue text indicate terms in which the course was not included in this program's curriculum. The program course list is a composite from 2013-2016 academic calendars.
Section enrollment averages exclude core courses.