

Bachelor of Science in Applied
Science +2 Completion Program

Electro-Mechanical Engineering
Technology

or

Electrical & Computing
Engineering Technology

Through the Distance Learning
Partnership of

COLUMBUS STATE

COMMUNITY COLLEGE

and



MIAMI UNIVERSITY

REGIONALS

Department of Engineering Technology

Bachelor of Science in Applied Science Completion Program

Major: Electro-Mechanical Engineering Technology

For students entering Fall 2017 and after from Columbus State Community College. Updated: 10/30/17

This Bachelor of Science in Applied Science Completion Program is designed for students who have completed an associate degree in Electrical, Mechanical, and Electro-Mechanical or similarly titled engineering technology programs. Graduates from other Engineering Technology programs will also receive favorable credit transfer. Through this program you can complete your BS degree by completing two-years of additional credit hours beyond your associate degree. Further information is available through www.regionals.miamioh.edu/ent then click on distance learning.

This articulation is meant to be a guide only. Your final degree requirements are established upon matriculation to Miami and are detailed in your degree audit report (DAR) provided by Miami. Work closely with a Miami advisor (listed below) to clarify final requirements. Students entering this program must meet all Miami University admission requirements available at www.miamioh.edu/regionals/admission/transfer-students or in the *Miami Bulletin*. For students who graduated from high school after 1985, these requirements include a foreign language in high school (two years) or college (one year). Students who do not meet these requirements at admission will still be admitted but must make up any deficiencies prior to graduating from Miami.

There are four areas of program requirements. About one-half of these requirements will be met while completing your associate degree. In addition, students must meet the general requirements for graduation from Miami which include a minimum of 32 credit hours taken from Miami and 12 of the last 20 credit hours must be taken from Miami.

1. Complete your associate degree in Electrical, Mechanical, Electro-Mechanical or similarly titled Engineering Technology program at your current college
2. Complete the Ohio Transfer Module at Columbus State. This Module is available at <https://www.ohiohighered.org/transfer/transferrmodule/modules> Click on Columbus State CC. Once complete, have the registrar at your college stamp your transcript: "Ohio Transfer Module Complete". Advising for this module is available at Columbus State. See the registrar or advising office. (An option to this requirement is to complete the [Miami Plan requirements](#) and contact Miami advisor listed below.)
3. Complete general education requirements specified by the Engineering Technology (ENT) department.
(* Denotes Included in the Ohio Transfer Module)

| Miami Engineering Technology Requirements | Take at Columbus State Community College |
|--|---|
| ENG 111 Composition & Rhetoric (MPF I) (3) | ENGL 1100* Composition I or ENGL B1100 Composition Bridge |
| ENG 215 Workplace Writing or ENG313 Technical Writing | COMM 2204 Technical Writing |
| STC 135 Intro. to Public Expression and Critical Inquiry or STC 136 Intro to Interpersonal Communication (3) | COMM 1105 Oral Communication or COMM 1110 Small Group Communication |
| Intercultural Perspectives Course Online Options: ART 183, ATH 185, BWS 151, ECO 131, WGS 201 and more | SAHS 2251 Social Welfare or HST 2223 African American Studies or Online Course at Miami |
| ECO 201 Microeconomics or ECO 202 Macroeconomics | ECON 2200* Principles of Microeconomics or ECON 2201* Principles of Macroeconomics |
| Visual BASIC or C Programming or Similar course | CSCI 1620 Visual Basic I or CSCI 2521 C++ Programming |
| MTH 125 Precalculus | MATH 1150* Precalculus |

| | |
|--|---|
| MTH 151 (Calculus I) AND MTH 251 (Calculus II) | MATH 1151* Calculus I or MATH B1151* Calculus I Bridge and MATH 1152* Calculus II |
| PHY 161, PHY162 Physics for Life Sci Lab or PHY 191, PHY192 General Physics with Lab II (4) | PHYS 1200* Algebra-Based Physics I or PHYS 1201* Algebra-Based |
| A Chemistry Course with lab (CHM 141, 144) | CHEM 1171* General Chemistry I |

1. Complete Engineering Technology (ENT) core courses listed below(32 semester hours minimum). You should have taken some of these in your associate degree program.

| Miami Engineering Technology Requirements | Take at Columbus State Community College |
|--|--|
| ENT Core courses (32 semester hours minimum) including those listed below. You should have taken some of these in your associate degree program. You can complete the remaining courses while taking the required Miami courses [Ohio Board of Regents Ohio Articulation Numbers]. | Columbus State: |
| ENT 135 Computer-Aided Drafting (3) [OET012 Computer Aided Design] | MECH 1145 CAD I |
| ENT 151 Engineering Materials (3) [OET013 Engineering Materials] | MECH 1150 Mfg. Materials and Processes |
| ENT 192 Circuit Analysis I (3) [OET001 DC Circuits] | EET 1105 Basic DC Electronic Systems |
| ENT 193 Circuit Analysis II (3) [OET003 AC Circuits] | EET 1125 Basic AC Electronic Systems |
| ENT 196 Electronics (3) [OET005 Electronics] | EET 1135 Electronic Switching and Amplifying Systems |
| ENT 271 Mechanics I: Statics (3) [OET007 Statics] | MECH 1130 Statics |
| ENT 272 Strength of Materials (3) [OET008 Strength of Materials] | MECH 2242 Strength of Materials |
| ENT 293 Digital Switching (3) [OET002 Digital] | EET 1115 Basic Digital Systems |
| The following Miami Courses are taken at Columbus State via Interactive Video (IVDL) or WebEx | |
| ENT 301 Dynamics (3) | Take from Miami |
| ENT 310 Fluid Mechanics (3) [OET009 Fluid Mechanics] | Take from Miami |
| ENT 311 Process Control Interface Design (3) | Take from Miami |
| ENT 316 Project Management | Take from Miami |
| ENT 401 Computerized Instrumentation (3) | Take from Miami |
| ENT 402 Industrial Automation Lab (3) | Take from Miami |
| ENT 407 Modern Manufacturing Systems (3) | Take from Miami |
| ENT 418 Electromechanical Control Systems (3) | Take from Miami |
| ENT 497,498 Senior Design I, II (2, 2) also meets MPC requirement. | Take from Miami |
| MTH 231 Discrete Math (3) <u>or</u> MTH 222 Introduction to Linear Algebra (3) (both meet MPT - Thematic Sequence | Take from Miami |
| STA 301 Applied Statistics (3) (meets MPT -Thematic Sequence requirement) | Take from Miami |

For more information

Columbus State

Jeff Curran, Coordinator | jcurran@csc.edu | 614-287-5350

Miami

Dr. Mert Bal, EMET Program Coordinator balm@miamioh.edu | 513-785-3151

Erikamarie Wick, Coordinator for Distance Programs and Recruiting, Erika.Wick@MiamiOH.edu | 513-785-3217

Bachelor of Science in Applied Science Completion Program

Major: Electrical & Computer Engineering Technology

For students entering Fall 2017 and after from Columbus State Community College. Updated: 10/30/17

This Bachelor of Science in Applied Science Completion Program is designed for students who have completed an associate degree in Electrical, Mechanical, and Electro-Mechanical or similarly titled engineering technology programs. Graduates from other Engineering Technology programs will also receive favorable credit transfer. Through this program you can complete your BS degree by completing two-years of additional credit hours beyond your associate degree. Further information is available through www.regionals.miamioh.edu/ent then click on distance learning.

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There are four areas of program requirements. About one-half of these requirements will be met while completing your associate degree. In addition, students must meet the general requirements for graduation from Miami which include a minimum of 32 credit hours taken from Miami and 12 of the last 20 credit hours must be taken from Miami.

4. Complete your associate degree in Electrical, Mechanical, Electro-Mechanical or similarly titled Engineering Technology program at your current college
5. Complete the Ohio Transfer Module at Columbus State. This Module is available at <https://www.ohiohighered.org/transfer/transfermodule/modules> Click on Columbus State CC. Once complete, have the registrar at your college stamp your transcript: "Ohio Transfer Module Complete". Advising for this module is available at Columbus State. See the registrar or advising office. (An option to this requirement is to complete the [Miami Plan requirements](#) and contact Miami advisor listed below.)
6. Complete general education requirements specified by the Engineering Technology (ENT) department.
(* Denotes Included in the Ohio Transfer Module)

| Miami Engineering Technology Requirements | Take at Columbus State Community College |
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| ENG 111 Composition & Rhetoric (MPF I) (3) | ENGL 1100* Composition I or ENGL B1100 Composition Bridge |
| ENG 215 Workplace Writing or ENG313 Technical | COMM 2204 Technical Writing |
| STC 135 Intro. to Public Expression and Critical Inquiry or STC 136 Intro to Interpersonal Communication (3) | COMM 1105 Oral Communication or COMM 1110 Small Group Communication |
| Intercultural Perspectives Course Online Options: ART 183, ATH 185, BWS 151, ECO 131, WGS 201 and more | SAHS 2251 Social Welfare or HST 2223 African American Studies or Online Course at Miami |
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| Visual BASIC or C Programming or Similar course | CSCI 1620 Visual Basic I or CSCI 2521 C++ Programming |
| MTH 125 Precalculus | MATH 1150* Precalculus |

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| PHY 161, PHY162 Physics for Life Sci Lab or PHY 191, PHY192 General Physics with Lab II (4) | PHYS 1200* Algebra-Based Physics I or PHYS 1201* Algebra-Based Physics II |
| A Chemistry Course with lab (CHM 141, 144) | CHEM 1171* General Chemistry I |

2. Complete Engineering Technology (ENT) core courses listed below(30 semester hours minimum). You should have taken some of these in your associate degree program.

| Miami Engineering Technology Requirements | Take at Columbus State Community College |
|---|--|
| ENT Core courses (30 semester hours minimum) including those listed below. You should have taken some of these in your associate degree program. You can complete the remaining courses while taking the required Miami courses [Ohio Board of Regents Ohio Articulation Numbers]. Columbus State: | |
| CSE 153 Introduction to C/C++ Programming or similar course | CSCI 1620 Visual Basic I or CSCI 2521 C++ Programming |
| ENT 192 Circuit Analysis I (3) [OET001 DC Circuits] | EET 1105 Basic DC Electronic Systems |
| ENT 193 Circuit Analysis II (3) [OET003 AC Circuits] | EET 1125 Basic AC Electronic Systems |
| ENT 196 Electronics (3) [OET005 Electronics] | EET 1135 Electronic Switching and Amplifying Systems |
| ENT 271 Mechanics I – Statics [OET007 Statics] | MECH 1130 Statics |
| ENT 293 Digital Systems [OET002 Digital] | EET 1115 Basic Digital Systems |
| ENT 294 Local area Networks | CSCI 2750 Cisco Networks (A) |
| ENT 295 Microprocessor Technology I [OET004 Microprocessors] | EET 2225 Embedded Microcontroller Systems |
| The following Miami Courses are taken at Columbus State via Interactive Video (IVDL) or WebEx | |
| ENT 298 Data Communications *** | Take from Miami |
| MTH 231 Discrete Math ** OR MTH 222 Intro to Linear Algebra | Take from Miami or MATH 2568 Linear Algebra |
| STA 301 Applied Statistics *** | Take from Miami |
| ENT 301 Dynamics *** | Take from Miami |
| ENT 303 Digital Signal Processing for Tech. *** | Take from Miami |
| ENT 311 Process Control Interface Design *** | Take from Miami |
| ENT 316 Project Management *** | Take from Miami |
| ENT 387 Embedded Systems Technology *** | Take from Miami |
| ENT 401 Computerized Instrumentation *** | Take from Miami |
| ENT 402 Industrial Automation *** | Take from Miami |
| ENT 403 Wireless Comm. & Networks *** | Take from Miami |
| ENT 418 Electromechanical Control Sys. *** | Take from Miami |
| ENT 497 Senior Design I *** | Take from Miami |
| ENT 498 Senior Design II *** | Take from Miami |

For more information

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To apply for this program:

Visit: [Regionals Admission Apply](#)

For tuition information: Please note, all transfer students to the +2 are Upper Division

Visit: [One Stop for Student Success Services](#)

Useful Miami Web Pages:

Miami University offers Bachelor Completion program in two concentrations, [Electrical and Computer Engineering \(ECET\)](#), as well as [Electro-Mechanical Engineering Technology concentration \(EMET\)](#), to students all across the state of Ohio. Visit our [Distance Learning page](#) for more information on completing your BS degree at a partner school.

Frequently Asked Questions:

What is the Miami University *Bachelor's Degree Completion Program*?

This is a BS Completion program designed to articulate with graduates of Associate of Applied Science programs who have majored in Electrical, Electronic, Electro-Mechanical, Mechanical, or similarly titled Engineering Technology programs*. The program leads to a Bachelor of Science in Applied Science with a major in Electro-Mechanical Engineering Technology.

This program is available through Miami's regional campuses. Miami is also offering this program by "distance learning" (e.g., web, interactive video, video streaming, etc.) through partnerships with Columbus State Community College, Cincinnati State Community College, Edison State Community College, Shawnee State University, Southern State Community College, Northwest State Community College, North Central State College, Terra Community College, Rhodes State College, Washington State Community College, and Zane State College. It is designed for students interested in continuing their education beyond the associate degree.

*Students from other Engineering Technology associate degree programs will also receive favorable credit transfer.

Who is eligible to apply for this program?

Students who have completed their Associate in in Electrical, Electronic, Electro- Mechanical, Mechanical, or similarly titled Engineering Technology programs are eligible to apply the Miami University BS Completion Program. Graduates from other Engineering Technology programs will also receive favorable credit transfer.

How do I apply?

Applying is easy and there are several ways to apply. You can apply on-line at <http://www.miamioh.edu/regionals/admission/transfer-students/>. You may also call Miami University [OneStop](#) for Student Success Admissions Office at 513-785-3111 to have an application mailed to you. As a Miami student applicant, all University admission requirements apply to you.

Do I need to take a foreign language?

If you did NOT complete two years of the same language in high school, you will have to complete one year of a foreign language in college (2 semesters). ENT at Miami does NOT have a language requirement as long as the student has completed two years of high school language. This will be reflected in the Degree Audit Report at Miami. If you are unsure, contact your Miami advisor.

When do I apply?

You should apply to Miami the semester prior to when you expect to begin taking Miami courses. For example, if you intend to begin taking classes in the Fall, you should apply and send your transcripts the prior Spring. If you apply earlier, you may be deemed "dormant" and you will have to re-enroll when you decide to start taking courses. Visit www.miamioh.edu/reenroll to do so. There is no charge to reenroll.

What classes are required to complete the degree?

Your program requirements will be provided in your Degree Audit Report (DAR) once you matriculate into the program. The DAR is available at www.mymiami.miamioh.edu through bannerweb. Miami delivers by distance to our partner colleges the required 300 and 400 level ENT courses and two math courses (MTH 231 and STA 301). Articulation agreements can be found on the [ENT Department Transfer Link](#).

General program requirements can be found in the Miami Bulletin <http://miamioh.edu/academics/bulletin/> or on the ENT Department web page under Distance Learning, then select your desired degree program. Two Miami graduation requirements worth noting are that 32 credit hours must be from Miami (these are delivered by distance) and 12 of the last 20 credit hours must be from Miami.

How much will it cost?

Since you are enrolled through Miami University, you pay Miami University fees. Tuition and financial aid information are available in the [Your Money](#) section of OneStop's Website. Transfer students with an associate degree will be at the Upper Division Level.

When are classes offered? Is it possible to work and complete this program?

Engineering Technology classes are offered during evening hours. A complete schedule is available at www.miamioh.edu/courselist (Please note, select a Term, then Campus: All Regional Campuses, and then Subject: Engineering Technology). Most students in our program are employed during the day and take classes at night.

How long will it take to complete the program?

It generally takes two years* to complete the program full time and three years* to complete the program part time. In addition, students completing this engineering technology program may also sit for the FE and/or PE exams. *varies by student.

What are "bridge" courses?

Bridge courses are classes offered at your community college which help "bridge the gap" between the associate's degree and the bachelor degree completion program. These courses are required for your bachelor degree and may serve as prerequisites for upper-level courses.

Do I need to complete all of my community college courses for my associate's degree and bridge courses prior to beginning my work with Miami?

No, you may complete course work at both schools simultaneously. However, you will need to complete any necessary prerequisite courses prior to taking any advanced-level classes at Miami. You must also meet Miami's graduation requirements. These requirements state that, among other things, you complete 32 Miami credit hours and you take 12 of your last 20 credit hours from Miami. Therefore, you should consider completing most of your bridge courses prior to the required Miami courses. If you take additional bridge courses after enrolling at Miami, make sure you send an updated transcript prior to completing your last 12 Miami credit hours so Miami can transfer the additional courses.

As a distance student, do I need to drive to the Miami University Campus to complete the degree?

No, the technical classes of this program are delivered by interactive video, video streaming, web or other means in the evening from Miami Hamilton or Miami Middletown to our partner (distance) campuses. Office hours are also held through videoconferencing.

Will faculty be available to assist me?

Yes, Miami University, Engineering Technology faculty members are available to assist you if you have questions. See "What do I do if I have questions?" Faculty assigned to each class will also assist you and provide you with contact information.

Who should enroll in distance learning programs? Is it for me?

Miami University recommends that students interested in distance learning be willing to dedicate 8-10 hours a week, per class, to participate in this learning process. You should be self-directed, a self-starter, and have an opinion that distance education is of equal or better value than traditional classroom learning.

Is financial aid available?

Yes, financial aid is available. To get started, you need to complete the FAFSA (available online at OneStop) You may also contact the financial aid offices ([OneStop Financial Aid](#)) at Miami Regionals (513.217.4111). Apply early because there are deadlines.

What books do I need and where do I get my books?

Instructors will inform students of needed textbooks or students can check [eCampus Textbooks](#). Be sure to note which campus your class originates from (available in the course list). Textbooks are available in person through the bookstores at Miami University Hamilton or Middletown. You can also purchase your books on-line from [www.barnesandnoble.com](#), [www.amazon.com](#), or other on-line bookstores.

Will all my credits transfer?

All college-level courses completed at an accredited college or university will transfer to Miami University. Miami University is based on semesters, however, some students still have quarter credits. As such, 3 quarter credits transfer to Miami as 2 semester credits. Likewise, there are three quarters or two semesters to an academic year. Transfer credit assessment is based on information obtained from [www.transferology.com](#) or [Ohio's Transfer Assurance Guide](#).

How do I register for classes?

You can register for your Miami courses on BannerWeb at [www.mymiami.miamioh.edu](#) using your Miami University UniqueID and password. Your UniqueID and password are automatically set up by you after admission to Miami. If you have questions about your registration, please contact your Miami Advisor.

Admissions

Miami's Engineering Technology' programs are available exclusively at the regional campuses and enjoy an open admission policy. Students who graduated from high school, earned a GED or present credentials demonstrating equivalent levels of academic achievement (home schooled or other alternative educational program) are eligible to attend. There are no additional requirements to enroll as an ENT Major. You may apply at any time.

For more information, contact: Columbus State:

Jeff Curran, Coordinator jcurran@csc.edu, 614.287.5350

Miami:

Dr. Mert Bal balm@muohio.edu, 513-785-3151, Professor and Coordinator of Electromechanical Engineering Technology

Erikamarie Wick erika.wick@miamioh.edu, Advising - Coordinator of Distance Programs & Recruiting at 513-785-3217

Engineering Office at 513-785-1804