

Indiana Commission for Higher Education
Indiana Board for Proprietary Education

**Out-of-State Institutions and
In-State Proprietary Institutions Offering Instruction in Indiana
with a Physical Presence in the State**

DEGREE APPLICATION
(New or Renewal program)

Use the <tab> key to advance to the next field, or select a field by clicking the cursor.

Name of Institution Embry-Riddle Aeronautical University

Program name and
Suggested CIP Code: Bachelor of Science in Engineering Technology, 15.0801

Level of Degree (AAS, AS, AA, BAS, BA, BS, MBA, MAS, MA, MS, Ph.D.) BS

Name of Person Preparing this Form Rachel Durrance

Telephone Number 386-226-7129 **Application Type**

Date the Form was Prepared 3/28/2016 Initial or Renewal
(Revise date after any revision)

I. PROGRAM OBJECTIVES: Describe what the program is designed to achieve and explain how it is structured in order to accomplish the objectives.

With the rapid advancement of science and technology in today's world, every industry needs highly qualified engineers who can keep innovation moving forward. Offered entirely online through Embry-Riddle Aeronautical University Worldwide, this specialized degree program will prepare you to put your engineering skills to work in a variety of industries.

Through the use of cutting-edge virtual labs and simulation methods, students will develop the skills to design, refine and apply engineering technologies across a range of industries. You can also choose to target your studies with a particular concentration including Aeronautical Science, Aviation Safety, Helicopter Operations and Safety, Logistics Management, Management Information Systems, Occupational Safety and Health, Project Management, Security and Intelligence, Transportation and Unmanned Aerial Systems.

The Bachelor of Science in Engineering Technology curriculum will also help students prepare for the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering (FE) exam, the first step for any engineer to earn a P.E. license.

Engineering Technology Area of Concentration

The Engineering Technology Area of Concentration is the degree area where credit for prior engineering technology learning is housed or where students can take courses to learn about engineering technology. Many students bring in all or part of this credit based on prior engineering or engineering technology training or experience. However, shortages in the minimum credit required can be made up by taking courses in the following related disciplines: Aeronautical Science, Aviation Safety, Helicopter Operations and Safety, Unmanned Aerial Systems, Transportation, Logistics Management, Management Information Systems, Occupational Safety and Health, Project Management, Security and Intelligence.

Sources of Prior Learning Credit include the following:

1. Transfer credit earned at accredited degree-granting colleges and universities.
2. The recommendations published by the American Council on Education for U.S. Military training and experience, as well as training conducted by other government agencies and private organizations.
3. Prior-learning credit established by the University for certain engineering and aviation licenses and ratings as they relate to this degree.

GENERAL EDUCATION / LIBERAL ARTS COURSES:

<u>Course Number</u>	<u>Course Title</u>	<u>Course Hours</u>
ENGL 123	Communication Theory and Skills	3
	English Composition	3
	English/Speech electives	6
	Mathematics	
MATH 241	Calculus and Analytic Geometry I	4
MATH 242	Calculus and Analytic Geometry II	4
	Computer Science / Information	
ENGR 115	Introduction to Computing for Engineers	3
	Physical and Life Sciences	
CHEM 105	General Chemistry	3
CHEM 105L	General Chemistry Laboratory	1
PHYS 150	Physics I for Engineers	3
PHYS 160	Physics II for Engineers	3
	Humanities	
HUMN 330	Values and Ethics	3
	Humanities lower level elective	3
	Social Sciences	
ECON 210	Microeconomics	3
ECON 211	Macroeconomics	3
	General Open Electives	9

GENERAL EDUCATION / LIBERAL ARTS COURSES:

<u>Course Number</u>	<u>Course Title</u>	<u>Course Hours</u>
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Number of Credit/Clock Hrs. in Specialty Courses: _____ / 71 Percentage: 58%

Number of Credit/Clock Hrs. in General Courses: _____ / 51 Percentage: 42%

If applicable:
Number of Credit/Clock Hrs. in Liberal Arts: _____ / _____ Percentage: _____

III. LIBRARY: Please provide information pertaining to the library located in your institution.

1. Location of library; Hours of student access; Part-time, full-time librarian/staff:

Due to the nature of our University with 137 campuses globally, we strive to provide library resources through digital platforms. For further information please see the attached Appendix 1 Library resources document.

2. Number of volumes of professional material:

See attached Appendix 1 Library Resources Document

3. Number of professional periodicals subscribed to:

See attached Appendix 1 Library Resources Document

4. Other library facilities in close geographical proximity for student access:

See attached Appendix 1 Library Resources Document

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**Supplementary Information on
Licensure, Certification, and Accreditation**

Institution: Embry-Riddle Aeronautical University
Degree Program: Bachelor of Science in Engineering Technology
Locations: 5726 Professional Circle, Suite 120, Indianapolis, IN 46241

State Licensure

Does a graduate of this program need to be licensed by the State to practice their profession in Indiana and if so, will this program prepare them for licensure?

If so, please identify
The specific license(s) needed:
The State agency issuing the license(s):

Please see attached Appendix 2 document

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Professional Certification

What are the professional certifications that exist for graduates of similar program(s)?

Will a graduate of this program be prepared to obtain national professional certification(s) in order to find employment, or to have substantially better prospects for employment, in a related job in Indiana?

If so, please identify
Each specific professional certification:
The national organization issuing each certification:

Please explain the rationale for choosing each professional certification:

Please identify the single course or a sequence of courses that lead to each professional certification?

Please see attached Appendix 2 document

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Professional Industry Standards/Best Practices

Does the program curriculum incorporate professional industry standard(s) and/or best practice(s)?

If so, please identify
The specific professional industry standard(s) and/or best practice(s):
The organization or agency, from which the professional industry standard(s) and/or best practice(s) emanate:

Please see attached Appendix 2 document

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Program Accreditation

Does this program need specialized accreditation in order for a graduate to become licensed by the State or to earn a national professional certification, so graduates of this program can work in their profession or have substantially better prospects for employment?

If so, please identify the specialized accrediting agency:

Please see attached Appendix 2 document

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Transferability of Associate of Science Degrees

Since CHE/BPE policy reserves the Associate of Science designation for associate degrees whose credits apply toward meeting the requirements of a related baccalaureate degree, please answer the following questions:

Does a graduate of this A.S. degree program have the option to apply all or almost all of the credits to a related baccalaureate degree at your institution?

If so, please list the baccalaureate degree(s):

Please see attached Appendix 2 document

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Job Titles

List specific job titles and broad job categories that would be appropriate for a graduate of this program:

Please see attached Appendix 2 document

Appendix 1. Library Resources

Books, Library and Supplies

Hunt Library: Bringing the Library to You

<http://huntlibrary.erau.edu/>

The Hunt Library, located on the Daytona Beach Campus, is the Library for all Worldwide students, faculty and staff, regardless of location. The Hunt Library slogan, "Bringing the Library to You," defines our commitment that the Worldwide community has access to all library resources and services.

The mission of the Hunt Library is to provide materials, services, and facilities to students, faculty, and staff in support of the University's commitment to excellence in teaching, learning, and research for both the Daytona Beach and Worldwide campuses.

Hunt Library users will find resources in a variety of formats: books, government documents, periodicals, microforms, conference proceedings, videos, DVDs, and electronic resources.

The Hunt Library's web pages are located at library.erau.edu; choose the Hunt Library link.

The electronic library includes round-the-clock access to EAGLEsearch (<http://library.erau.edu/find/eaglesearch.html>), which allows researchers to search much of Hunt Library's collection simultaneously, as well as the Library's online catalog, Voyager (<http://voyager.db.erau.edu:7008/vwebv/searchAdvanced>), and over 100 online databases (<http://guides.erau.edu/databases>) (which include many full-text resources).

Textbook Purchase

Please consult the Campus Director at your Worldwide location or your Student Affairs Office advisor for information on ordering textbooks. Students may search for textbook information by term on the Worldwide Master Textbook & Materials List site. Online, EagleVision Home, and certain classroom books may be purchased through the Worldwide bookstore website (<http://store.nexternal.com/erau/storefront.aspx>).

Identification Cards

Applying for a student identification card, known as the EAGLEcard, is done through your ERNIE (<http://ernie.erau.edu>) login under Student Services (<https://ernie.erau.edu/portal/page/portal/students/services/worldwide>). These identification cards may be required to use the library facilities of other universities and might be used for student discounts wherever a student identification card is honored.

Help

The Hunt Library is the researcher's primary resource provider. Regardless of their location, members of Embry-Riddle's Worldwide community have circulation (check-out) privileges, online quick-help opportunities, and access to a web-based document delivery system.

Research Librarians are also available via telephone at (800) 678-9428 or (386) 226-7656, by chat (<http://library.erau.edu/help/ask-a-librarian>) or by emailing us at library@erau.edu (library@erau.edu). Research Librarians will provide detailed advice on research strategies, referrals to relevant reference sources, assistance with literature searches, and help navigating the library's website.

An overview of the Hunt Library's help features is available from <http://library.erau.edu/help/>

How to Contact the Hunt Library

Phone: (800) 678-9428 or (386) 226-7656 (8 a.m.-5 p.m. Eastern)

E-mail: library@erau.edu

Internet: library.erau.edu/home.html

Hunt Library Strategic Plan

Vision Statement

The Embry-Riddle Aeronautical University Hunt Library will be a leading resource for the access and discovery of information and research in aviation and aerospace studies.

Mission Statement

The Hunt Library supports the Daytona Beach and Worldwide Campuses. It provides access to materials, information resources, services and facilities to students, faculty and staff in support of the University's commitment to excellence in teaching, learning, and research. As an academic support unit, the Library maintains flexibility and is proactive in meeting the changing information needs of its clientele.

Strategic Directions for 2013-2016

To fulfill the Library's vision, the staff will focus on the following strategic directions.

Strategic Direction 1: Provide easy access to Library collections, excellent customer service, and student study space through the transitions to temporary and new permanent locations.

Strategic Direction 2: Facilitate open access to the research and creative works of faculty, students and staff.

Strategic Direction 3: Enhance virtual collections, instruction and research assistance.

Strategic Direction 4: Preserve the University's collections of rare and unique information resources.

Strategic Direction 5: Develop new research and service partnerships

Appendix 2. Bachelor of Science in Engineering Technology

State Licensure

Does a graduate of this program need to be licensed by the State to practice their profession in Indiana and if so, will this program prepare them for licensure?

No, a graduate of this program does not need to be licensed by the State to practice their profession.

Is so, please identify

The specific license(s) needed:

The State agency issuing the license(s):

Professional Certification

What are the professional certifications that exist for graduates of similar program(s)?

Will a graduate of this program be prepared to obtain national professional certification(s) in order to find employment, or to have substantially better prospects for employment, in a related job in Indiana?

If so, please identify

Each specific professional certification:

- *National Institute for Certification in Engineering Technologies*
- *Associate Engineering Manager*
- *Systems Engineering Professional*
- *Associate Systems Engineering Professional*
- *Professional Engineer*

The national organization issuing each certification:

- *National Society for Professional Engineers*
- *American Society for Engineering Management*
- *International Council on Systems Engineering*

Please explain the rationale for choosing each professional certification:

These professional certifications will help graduates of this program further themselves in the field of engineering technology will help the graduate keep current with new information and technology.

Please identify the single course or a sequence of courses that lead to each professional certification?

To attain each of these certifications the graduate will need to submit either documentation to show that they are in the field of engineering technology or sit for an exam that will test their knowledge of the field of engineering technology. Some of these certifications required both evidence and a test, while others require one or the other.

Professional Industry Standards/Best Practices

Does the program curriculum incorporate professional industry standard(s) and/or best practice(s)?

This Program does not incorporate professional industry standards and/or best practices.

If so, please identify

The specific professional industry standard(s) and/or best practice(s):

The organization or agency from which the professional industry standard(s) and/or best practice(s) emanate:

Program Accreditation

Does this program need specialized accreditation in order for a graduate to become licensed by the State or to earn a national professional certification, so graduates of this program can work in their profession or have substantially better prospects for employment?

The BS in Engineering Technology is seeking accreditation with the Accreditation Board for Engineering and Technology (ABET). An accredited program will help with students seeking employment, but the accreditation will not have an effect on earning any licenses or certification.

If so, please explain the specialized accrediting agency:

Transferability of Associate of Science Degrees

Since CHE/BPE policy reserves the Associate of Science designation for associate degrees whose credits apply toward meeting the requirements of a related baccalaureate degree, please answer the following questions:

Does a graduate of this A.S. degree program have the option to apply all or almost all of the credits to a related baccalaureate degree at your institution?

If so, please list the baccalaureate degree(s):

Not Applicable since this is a Bachelor's level Degree Program

Job Titles

List specific job titles and broad job categories that would be appropriate for a graduate of this program:

- *Engineering Laboratory Leader*
- *Engineer*
- *Space Management*
- *Computer Aided Design Manager*
- *Engineer Technologist*