

# **SEMINOLE STATE COLLEGE AND THE UNIVERSITY OF CENTRAL FLORIDA**

## **ENGINEERING ARTICULATED PROGRAM**

### **2017-2018 UCF ARTICULATED UNDERGRADUATE DEGREE REQUIREMENT**

<b>Title of Agreement</b>	: ARTICULATED ASSOCIATE IN ARTS AGREEMENT
<b>Major</b>	: ENGINEERING
<b>College/School</b>	: ENGINEERING AND COMPUTER SCIENCE & COLLEGE OF OPTICS AND PHOTONICS
<b>Degree</b>	: BACHELOR OF SCIENCE
<b>Options/Tracks</b>	: BACHELOR OF SCIENCE
<b>Limited Access</b>	: NO

### **INTRODUCTION**

The Engineering Articulated Program (EAP) is an articulation agreement which entitles Seminole State College (SSC) students to earn credits that will be transferable toward an engineering baccalaureate degree at UCF while they are in the process of completing the appropriate Engineering Common Program Prerequisite courses and earning an Associate in Arts, Pre-Engineering at SSC. Seminole students successfully completing this A.A., Pre-Engineering and the Common Program Prerequisites are accepted into the engineering program of their choice after being admitted to the University of Central Florida.

A. To participate in the EAP, Seminole students must:

1. Officially select the EAP and the A.A., Pre-engineering by consulting with a Seminole State College advisor,
2. Seek advisement from a qualified advisor for Pre-Engineering each semester before registering for classes,
3. Have selected a specific engineering major by the completion of the first year of the A.A., Pre-engineering curriculum, and,
4. Graduate from Seminole State College with the AA degree, with sub-plan Pre-Engineering.

B. Acceptance of Engineering-related courses taken at Seminole:

Up to six courses may be used toward the Seminole A.A., Pre-engineering program and, depending on the Engineering major chosen, toward an Engineering baccalaureate degree at UCF:

EGS 1006 Introduction to the Engineering Profession (UCF course number EGS 1006C);

EGN 1007 Engineering Concepts and Methods (UCF course number EGN 1007C);

EGN 2312 Engineering Analysis-Statics (UCF course number EGN 3310 or equivalent);

EGN 2322 Engineering Analysis-Dynamics (UCF course number EGN 3321 or equivalent);

EGN 2440 Probability and Statistics for Engineers (UCF course number STA 3032 or equivalent); and

EGN 2610 Engineering Economic Analysis (UCF course number EGN 3613)

Seminole may develop and teach courses equivalent to these six courses. Such courses will be accepted in transfer by the UCF College of Engineering and Computer Science as being equivalent to the indicated UCF courses provided that they satisfy the following characteristics:

1. ABET course control documents prepared and supplied by the UCF College of Engineering and Computer Science must be used for defining these courses.
2. The current UCF College of Engineering and Computer Science syllabus for each of these courses must be used to describe the contents of that course as it is to be taught each semester.
3. Qualified Seminole faculty (master's degree and 18 hours within engineering) may teach these courses provided they meet SACS requirements for faculty.

**NOTE:** Prerequisites for all engineering courses must be satisfied prior to enrollment in those courses.

### **BACHELOR OF SCIENCE IN ENGINEERING UNIVERSITY OF CENTRAL FLORIDA**

Students declaring a major in an engineering discipline must be in good academic standing and must have a “C” (2.0) or better in each of the following courses or their equivalents: MAC 2311, MAC 2312, MAC 2313, PHY 2048C, PHY 2049C, and CHM 2045C or CHS 1440. Students in the EAP will have the same priority as native UCF students for all scheduled classes required for completing the Bachelor of Science (B.S.) in their selected engineering major. This degree may be earned from the UCF College of Engineering and Computer Science in any of the following majors:

1. Aerospace Engineering
2. Civil Engineering
3. Computer Engineering
4. Construction Engineering
5. Electrical Engineering
6. Environmental Engineering
7. Industrial Engineering
8. Mechanical Engineering
9. Photonics Science and Engineering (offered jointly by the UCF Colleges of Optics and Photonics and Engineering and Computer Science)

### **SSC to UCF ENGINEERING ARTICULATED COURSE EQUIVALENCIES**

<b>SSC</b>	<b>UCF</b>	<b>TITLE</b>
EGS 1006	EGS 1006C	Introduction to the Engineering Profession
EGN 1007	EGN 1007C	Engineering Concepts and Methods
EGN 2312	EGN 3310	Engineering Analysis – Statics
EGN 2440	STA 3032	Probability and Statistics for Engineers
EGN 2322	EGN 3321	Engineering Analysis – Dynamics
EGN 2610	EGN 3613	Engineering Economic Analysis

### **Aerospace Engineering**

Students intending to major in Aerospace Engineering should include the following lower division pre-requisite program courses within their A.A.:

EGS	1006	Intro to the Engineering Profession (1hr)	(PR: None)
EGN	1007	Engineering Concepts and Methods (1hr)	(PR: MAC 1105)
EGN	2312	Engineering Analysis – Statics	(PR: MAC 2311; PHY 2048C) (PR/CR: MAC 2312)
EGN	2440	Probability and Statistics for Engineers	(PR: MAC 2312)

### **Civil Engineering**

Students intending to major in Civil Engineering should include the following lower division pre-requisite program courses with their A.A.:

EGS	1006	Intro to the Engineering Profession (1hr)	(PR: None)
EGN	1007	Engineering Concepts and Methods (1hr)	(PR: MAC 1105)
EGN	2312	Engineering Analysis – Statics	(PR: MAC 2311; PHY 2048C) (PR/CR: MAC 2312)
EGN	2440	Probability and Statistics for Engineers	(PR: MAC 2312)
EGN	2322	Engineering Analysis – Dynamics	(PR: MAC 2313; EGN 2312) (PR/CR: MAP 2302)
EGN	2610	Engineering Economic Analysis	(PR: MAC 2311)

### **Computer Engineering**

Students intending to major in Computer Engineering should include the following lower division prerequisite program courses within their A.A.:

EGS	1006	Intro to the Engineering Profession (1hr)	(PR: None)
EGN	1007	Engineering Concepts and Methods (1hr)	(PR: MAC 1105)
EGN	2440	Probability and Statistics for Engineers	(PR: MAC 2312)

### **Construction Engineering**

Students intending to major in Construction Engineering should include the following lower division prerequisite program courses within their A.A.:

EGS	1006	Intro to the Engineering Profession (1hr)	(PR: None)
EGN	1007	Engineering Concepts and Methods (1hr)	(PR: MAC 1105)
EGN	2312	Engineering Analysis – Statics	(PR: MAC 2311; PHY 2048C) (PR/CR: MAC 2312)
EGN	2440	Probability and Statistics for Engineers	(PR: MAC 2312)
EGN	2322	Engineering Analysis – Dynamics	(PR: MAC 2313; EGN 2312) (PR/CR: MAP 2302)
EGN	2610	Engineering Economic Analysis	(PR: MAC 2311)

### **Electrical Engineering**

Students intending to major in Electrical Engineering should include the following lower division pre-requisite program courses within their A.A.:

EGS	1006	Intro to the Engineering Profession (1hr)	(PR: None)
EGN	1007	Engineering Concepts and Methods (1hr)	(PR: MAC 1105)

EGN 2440 Probability and Statistics for Engineers (PR: MAC 2312)

### **Environmental Engineering**

Students intending to major in Environmental Engineering should include the following lower division prerequisite program courses within their A.A.:

EGS 1006	Intro to the Engineering Profession (1hr)	(PR: None)
EGN 1007	Engineering Concepts and Methods (1hr)	(PR: MAC 1105)
EGN 2312	Engineering Analysis – Statics	(PR: MAC 2311; PHY 2048C) (PR/CR: MAC 2312)
EGN 2440	Probability and Statistics for Engineers	(PR: MAC 2312)
EGN 2322	Engineering Analysis – Dynamics	(PR: MAC 2313; EGN 2312) (PR/CR: MAP 2302)
EGN 2610	Engineering Economic Analysis	(PR: MAC 2311)

### **Industrial Engineering**

Students intending to major in Industrial Engineering should include the following lower division prerequisite program courses within their A.A.:

EGS 1006	Intro to the Engineering Profession (1hr)	(PR: None)
EGN 1007	Engineering Concepts and Methods (1hr)	(PR: MAC 1105)
EGN 2312	Engineering Analysis – Statics	(PR: MAC 2311; PHY 2048C) (PR/CR: MAC 2312)
EGN 2440	Probability and Statistics for Engineers	(PR: MAC 2312)
EGN 2322	Engineering Analysis – Dynamics	(PR: MAC 2313; EGN 2312) (PR/CR: MAP 2302)

### **Mechanical Engineering**

Students intending to major in Mechanical Engineering should include the following lower division prerequisite program courses within their A.A.:

EGS 1006	Intro to the Engineering Profession (1hr)	(PR: None)
EGN 1007	Engineering Concepts and Methods (1hr)	(PR: MAC 1105)
EGN 2312	Engineering Analysis – Statics	(PR: MAC 2311; PHY 2048C) (PR/CR: MAC 2312)
EGN 2440	Probability and Statistics for Engineers	(PR: MAC 2312)
EGN 2322	Engineering Analysis – Dynamics	(PR: MAC 2313; EGN 2312) (PR/CR: MAP 2302)

### **Photonics Science and Engineering**

Students intending to major in Photonics Science and Engineering should include the following lower division prerequisite program courses within their A.A.:

EGS 1006	Intro to the Engineering Profession (1hr)	(PR: None)
EGN 1007	Engineering Concepts and Methods (1hr)	(PR: MAC 1105)
EGN 2440	Probability and Statistics for Engineers	(PR: MAC 2312)

### **UCF B.S. REQUIREMENTS**

To earn a UCF Engineering B.S. through the E.A.P., the student must meet all the graduation requirements listed in the UCF Undergraduate Catalog for the appropriate catalog year. Generally, this catalog will include the following:

### **UCF Graduation Requirements**

- A. **General Education Program Requirement** (completed as part of the Pre-Major in Engineering Associate in Arts)
- B. **Common Program Prerequisites** (completed to fulfill requirements of the Pre-Major in Engineering Associate in Arts)
- C. **Program Requirements**
  - 1. **Students wanting to declare a major** in an engineering discipline must complete a change of major after the withdrawal deadline in the term of completion of the final pending prerequisite courses
  - 2. **Core Requirements: Basic Level (2 hours)** the College of Engineering and Computer Science requires all engineering students to achieve a minimum 2.25 GPA in completing these courses, together with the core requirements listed in sections 3 and 4 below, and with the Capstone Requirements. Independent study courses generally do not satisfy major requirements.
  - 3. **Core Requirements: Advanced Level (51 hours)**
  - 4. **Restricted Electives (variable)**
  - 5. **Capstone Requirements (6 hours)** these courses are a capstone course experience to the engineering program and should be completed in the last two major semesters of study.
- D. **College/School Exit Requirements**
  - 1. Students must complete an exit survey
  - 2. Computer competency is met by completion of the major
  - 3. Resident Requirement: at least 24 semester hours of regularly scheduled 3000 – 5000 level courses taken from the College of Engineering and Computer Science at UCF
  - 4. 18 of the 24 residency hours must be 4000 – 5000 level
- E. **University Minimum Exit Requirements**
  - 1. 2.0 UCF GPA
  - 2. 60 semester hours earned after CLEP awarded
  - 3. 48 semester hours of upper division credit completed
  - 4. 30 of the last 39 hours of course work must be completed in residency at UCF
  - 5. A maximum of 45 hours of extension, correspondence, CLEP, Credit by Exam, and Armed Forces credits permitted
  - 6. Complete the General Education Program, the Gordon Rule, the CLAS and nine hours of Summer credit (if applicable)

### **AGREEMENT PROVISIONS**

#### **Admission to UCF and the College of Engineering and Computer Science**

Students who have completed their Associate in Arts at Seminole State College as described herein and maintained a 2.0 GPA will be accepted into the upper division in the UCF College of Engineering and Computer Science as either an engineering major (if grades of C [2.0] or better have been earned in MAC 2311, MAC 2312, PHY 2048C, and either CHS 1440 or CHM 2045C [or equivalent courses]), or otherwise as an engineering pending major, after being admitted to the University of Central Florida.

### **Foreign Language Requirements**

Students who have not completed two units of the same language or American Sign Language in high school should complete a minimum of eight semester hours of college level foreign language or demonstrate proficiency at SSC. Students admitted to UCF without completing this requirement must satisfy it prior to graduation from the University.

### **Immunization**

Students who matriculate at a state university are required to provide proof of immunization against Rubeola (measles) and Rubella (German measles) prior to enrollment.

### **Updates**

This agreement is subject to change by legislative action, the Department of Education, the Florida Board of Education, the University of Central Florida or its Board of Trustees, Seminole State College or its Board of Trustees, or external accrediting agencies. This agreement will be reviewed by both parties on a yearly basis to ensure the timeliness of this document.

### **Resources**

Resources for implementation of the Agreement may come from either party, depending upon budgetary availability. No party hereto is obligated hereby to expend any resources whatsoever in connection with this Agreement. No implementation of any portion of the Agreement, or commencement of any specific projects, may be initiated prior to the written assurance of such budgetary availability to the other party hereto. To the extent any external funding is required by the university in order to implement this Agreement and funding for such purposes is not appropriated to the university by the Legislature of the State of Florida or is not otherwise available to the university, the university shall thenceforth have no further financial obligations hereunder. In the event the university does not have sufficient legislative appropriations to carry out any obligations under this Agreement, it shall immediately notify Seminole State College of such fact and of such portions of this Agreement that may be deemed terminated as a result of such failure of appropriations.

## **AGREEMENT TERMS**

- A. This Agreement shall become effective on the date of the last signature affixed hereto. It may be automatically renewed for additional one (1) year periods unless either party provides the other the notice no later than sixty (60) days prior to the expiration of the preceding term that it wishes to terminate this Agreement. If either party fails to follow the terms and conditions of the Agreement as set forth herein, the other party has the right to terminate this Agreement immediately upon written notice to the other.



- B. Notices with respect to rights and obligations of each party hereto shall be provided as follows:

**UNIVERSITY OF CENTRAL FLORIDA**

Dr. A. Dale Whittaker, Provost and Vice President for Academic Affairs

Dr. Elizabeth A. Dooley, Vice Provost and Dean Division of Teaching and Learning & College of Undergraduate Studies

Dr. Michael Georgiopoulos, Dean, College of Engineering and Computer Science

Dr. Bahaa Saleh, Dean College of Optics and Photonics

Dr. Charles Reilly, Associate Dean of Academic Affairs, College of Engineering and Computer Science

**SEMINOLE STATE COLLEGE**

Carlene McNeil, Director, Curriculum and Articulation and Academic Scheduling

Leon Portelli, Dean, Engineering and Computer Technology

M. Lisa Valentino, AVP, Academic Services

Dr. Michael Staley, AVP, School of Engineering, Design and Construction

Dr. Laura Ross, Vice President Academic Affairs and Chief Academic Officer

- C. Modifications or additions to, or deletions from this Agreement must be in writing and be signed by both parties. The designated representatives for the university and college on behalf of their respective boards of trustees are listed below

**APPROVALS**

**UNIVERSITY OF CENTRAL FLORIDA**

*John C. Hitt*

Signed: Tuesday, February 6, 2018

**Dr. John C. Hitt,  
President**

**Date**

**SEMINOLE STATE COLLEGE**

*Laura Ross for Dr. E. Ann McGee*

Signed: Monday, February 5, 2018

**Dr. E. Ann McGee  
President**

**Date**