Welcome to the 2018-2019 Academic Year at Florida Gulf Coast University (FGCU), U.A. Whitaker College of Engineering.

The Software Engineering Program Guidebook is designed to assist you with the standards, policies, procedures and guidelines that will help you have a positive academic experience. Please be aware that the policies, guidelines and forms contained in this Software Engineering Program Guidebook remain under review and any section or part may be revised without notice or obligation during your tenure in the program.

It is your responsibility to read the FGCU University Academic Catalog 2016-2017, FGCU Student Guidebook, and the Student Code of Conduct and to follow all guidelines, rules and regulations as they relate to FGCU, The U.A. Whitaker College of Engineering and the Civil Engineering Program.

I hope this is a rewarding and successful year for you.

Sincerely,

Dahai Guo, Ph.D.
Software Engineering Chair
Associate Professor
U.A. Whitaker College of Engineering
Contents
Forward ........................................................................................................... 2
Chair’s Welcome .......................................................................................... 2
Introduction .................................................................................................. 5
College of Engineering Vision and Mission .................................................. 5
Vision ............................................................................................................ 5
Mission ......................................................................................................... 5
Software Engineering Overview ................................................................. Error! Bookmark not defined.
Software Engineering Mission .................................................................... 6
Program Educational Objectives and Student Outcomes ............................. 7
Program Educational Objectives ................................................................ 7
Student Outcomes ....................................................................................... 7
Software Engineering Program Requirements ............................................. 8
Timely Progression Toward Degree ............................................................. 9
Sample Course Schedule .......................................................................... 10
Course Repeat Policy .................................................................................. 12
Advising ...................................................................................................... 12
Standards of Conduct .................................................................................. 13
Appeal Process - Grades ............................................................................ 13
Resolution of Student Appeals: Department Level Process ................. Error! Bookmark not defined.
Resolution of Student Appeals: College Level & Final Appeal .......... Error! Bookmark not defined.
Attendance and Punctuality ....................................................................... 13
In Classroom: ............................................................................................. 13
Civility .......................................................................................................... 14
E-mail Policy ............................................................................................... 14
Grading System ......................................................................................... 14
Student Grievance Procedure .................................................................... 14
Undergraduate Student Workload Policy ................................................... 15
General Information .................................................................................... 15
Canvas ......................................................................................................... 15
College Forms ............................................................................................ 15
Confidentiality and Privacy Rights ............................................................. 15

Revised October 5, 2018
Effective for AY2018-19
Disability Accommodations Services ................................................................. 15
Distance-Learning ............................................................................................ 16
Name and Address Change ............................................................................... 16
Scholarships ...................................................................................................... 16
Service Learning ............................................................................................... 16
Student Observance of Religious Holidays ..................................................... 16
Introduction
College of Engineering Vision and Mission

Vision
To provide the best value in high-quality engineering education.

Mission
To produce engineering leaders in selected disciplines with strong technical competence and professional skills to meet the challenges of Southwest Florida and beyond.
Software Engineering Overview

Software Engineering is the engineering discipline that utilizes a systematic approach to the development, production, operation, and maintenance of software. The Bachelor of Science degree in Software Engineering (SE) at FGCU prepares students in the theory and methods of systematic and rigorous construction of software for industrial, scientific and commercial applications. Software plays an increasingly important role in our daily life. It is a fast growing field. According to the Bureau of Labor Statistics’ Occupational Outlook Handbook 2010-11 Edition, more than 270,900 new software engineer positions will be created over the 2010 to 2020 period.

Software Engineering students complete core courses including traditional Computer Science courses and specific Software Engineering courses. Computer Science courses include object-oriented programming, data structures and algorithms, operating systems, and computer organization and networking. Software Engineering courses include software engineering fundamentals, software requirements engineering, software architecture and design, software testing, and team-oriented senior software engineering projects. Further specialized courses in real-time embedded systems, data acquisition and control, simulation and modeling, intelligent systems, and computer graphics are among the possible SE electives. In addition, students can take electives in computer information systems. Software Engineering students build on general education courses with a significant component in math and physics as prerequisites for upper level courses.

Software Engineering Mission

The mission of the B.S. Software Engineering degree program is to:

- deliver graduates with a high quality education in engineering and computer science who are well prepared for careers as valuable contributors in application software development, system software development, as well as for further graduate study
- while providing an entrepreneurial, interdisciplinary, and service oriented environment and curriculum, and
- valuing diversity and professionalism in our field, and collaboration across the engineering and computing disciplines.
Program Educational Objectives and Student Outcomes

The Software Engineering Program has formulated the following Program Educational Objectives, which describe the career and professional accomplishments that our B.S. Software Engineering degree program is preparing graduates to attain. In support of these objectives, the faculty have also identified the following Student Outcomes, which describe what students are expected to know and be able to do by the time of graduation. Program Educational Objectives

The FGCU B.S. Software Engineering degree program will produce graduates who:

- successfully enter chosen careers in application software development, system software development, and/or graduate studies,
- practice life-long learning in their professions, adapting to the rapidly changing technological world.

Student Outcomes

Graduates of the Software engineering program will attain:

- an ability to apply knowledge of mathematics, science, and engineering,
- an ability to design and conduct experiments, as well as to analyze and interpret data,
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability,
- an ability to function on multidisciplinary teams,
- an ability to identify, formulate, and solve engineering problems,
- an understanding of professional and ethical responsibility,
- an ability to communicate effectively,
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context,
- a recognition of the need for, and an ability to engage in life-long learning,
- a knowledge of contemporary issues, and
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
Software Engineering Program Requirements

Program specific requirements as well as general education and university requirements are included in the University Academic Catalog. Links to the specific pages in the catalog are listed below.

The General Education Program Website is located at http://www.fgcu.edu/general_education. To prevent or minimize excess hours, select general education courses that satisfy common prerequisite requirements for your intended major.

Program requirements for the B.S.C.E program can be found within the University Academic Catalog, located at http://www.fgcu.edu/Catalog/udetail.asp?id=9 This link provides program specific information including:

- Common Prerequisites
- Engineering Common Core
- Required Courses in the Major
- Restricted Electives
- University Requirements
- Additional Electives
- Additional Graduation Requirements
Timely Progression Toward Degree

The U.A. Whitaker College of Engineering uses academic milestones to monitor academic progress throughout the major. This monitoring ensures that students are on track for graduation in a timely fashion. In addition, transfer students must meet mapping guidelines to be accepted into their majors. A sample schedule for the Software Engineering Program is provided below. This sample schedule serves as a general guideline to help the student build a full schedule each term.

Missing a milestone will result in registration holds. Students are allowed no more than two milestone non-compliance issues in the Software Engineering Program. The first missed milestone in the major results in a hold being placed on the student’s account, requiring students to meet with their advisor for additional assistance prior to registration for the subsequent semester. At this time, remaining milestone deadlines may be adjusted per the student’s plan to graduation. If a student is in non-compliance with the milestones for a second time, a hold is placed on the student’s account and the student will be required to meet with an advisor to change majors.

For the B.S. in Software Engineering, the following milestones must be successfully completed, along with maintaining an overall GPA of 2.0 or higher at all times. Note that the semester number refers to the number of semesters after a student enters the U.A. Whitaker College of Engineering.

- Meet with an engineering academic advisor and have a smart plan on file by the end of Semester 1. Smart plans will be completed with the advisor and available to the student through Canvas.
- Complete MAC 2311 and COP 1500, both with a minimum grade of “C” by the end of the summer following Semester 2.
- Complete COP 2006 and MAC 2312, both with a minimum grade of “C” by the end of Semester 4.
- Complete COP 2001 with a minimum grade of “C” by the end of Semester 6.
- Complete COP 3530 and CEN 3031, both with a minimum grade of “C” by the end of Semester 7.
- Make a graduation check appointment with advising by the beginning of Semester 7.
- Apply for graduation per the University deadline during Semester 7.
### Freshman Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credit</th>
<th>Prerequisites</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall (Semester 1)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COP 1500</td>
<td>Intro to Computer Science</td>
<td>3</td>
<td>MAC 1105</td>
<td>Overall GPA ≥ 2.00</td>
</tr>
<tr>
<td>ENC 1101</td>
<td>Composition I (W)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAC 2311</td>
<td>Calculus I</td>
<td>4</td>
<td>MAC 1147</td>
<td>Meet with academic advisor and have a smart plan on file.</td>
</tr>
<tr>
<td>XXX XXXX</td>
<td>Science for Science Majors</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Spring (Semester 2)** |                                    |        |               |                                                 |
| XXX XXXX                | Humanities                          | 3      |               | Overall GPA ≥ 2.00                              |
| MAC 2312                | Calculus II                         | 4      | MAC 2311      |                                                 |
| ENC 1102                | Composition II (W)                  | 3      | ENC 1101      |                                                 |
| XXX XXXX                | Social Science                      | 3      |               |                                                 |
| **Total**               |                                    | 13     |               |                                                 |

| **Summer**              |                                    |        |               |                                                 |
| XXX XXXX                | Social Science STATE CORE           | 3      |               | Overall GPA ≥ 2.00                              |
| (recommend ECO 2013)     |                                    |        |               | Complete MAC 2311 with a "C" or better           |
| XXX XXXX                | Humanities                          | 3      |               |                                                 |
| XXX XXXX                | Humanities                          | 3      |               |                                                 |
| **Total**               |                                    | 9      |               |                                                 |

### Sophomore Year

| **Fall (Semester 3)** |                                    |        |               | Overall GPA ≥ 2.00                              |
| COP 2006              | Intro to Programming               | 3      | COP 1500, MAC 2311 |                                                 |
| STA 2037 / STA 2023   | Statistics w/ Calculus OR Statistical Methods | 3 | MAC 2311 /MAC 1105 (for STA 2023) |                                                 |
| XXX XXXX              | Math or Science elective           | 3      |               |                                                 |
| PHY 2048C             | General Physics I w/lab            | 4      | MAC 2311      |                                                 |
| **Total**             |                                    | 13     |               |                                                 |

| **Spring (Semester 4)** |                                    |        |               | Overall GPA ≥ 2.00                              |
| COP 2001              | Programming Methodology            | 3      | COP 2006, MAC 2312 | Complete MAC 2312 and COP 2006 with a “C” or better |
| CDA 3104              | Computer Org & Assem Lang Prog     | 3      | PHY 2048C, COP 2006 |                                                 |
| PHY 2049C             | General Physics II w/lab           | 4      | PHY 2048C, MAC 2312 |                                                 |
| MAD 3107              | Discrete Mathematics               | 3      | MAC 2312      |                                                 |
| **Total**             |                                    | 13     |               |                                                 |
### Junior Year

**Fall (Semester 5)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGN 3641C</td>
<td>Engineering Entrepreneurship</td>
<td>3</td>
<td>CDA 3200</td>
</tr>
<tr>
<td>IDS 3920</td>
<td>University Colloquium</td>
<td>3</td>
<td>Junior standing</td>
</tr>
<tr>
<td>CEN 3031</td>
<td>Software Engng Fundamentals</td>
<td>3</td>
<td>COP 2001, STA 2037 or STA 2023</td>
</tr>
<tr>
<td>COP 3003</td>
<td>Object-Oriented Programming</td>
<td>3</td>
<td>COP 2001</td>
</tr>
<tr>
<td>XXX XXXX</td>
<td>Unrestricted Elective</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>16</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Overall GPA ≥ 2.00**

**Spring (Semester 6)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEN 3073</td>
<td>Software Specifications</td>
<td>3</td>
<td>CEN 3031, EGN 3641C</td>
</tr>
<tr>
<td>COP 3530</td>
<td>Data Structures &amp; Algorithms</td>
<td>3</td>
<td>COP 3003, MAD 3107</td>
</tr>
<tr>
<td>COP 3710</td>
<td>Intro to Data Engineering</td>
<td>3</td>
<td>COP 3003</td>
</tr>
<tr>
<td>XXX XXXX</td>
<td>SE Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CEN 3071</td>
<td>Software Security</td>
<td>3</td>
<td>COP 3003</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Overall GPA ≥ 2.00**

**Complete COP 2001 with a "C" or higher**

### Senior Year

**Fall (Semester 7)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEN 4065</td>
<td>Software Architecture &amp; Design</td>
<td>3</td>
<td>CEN 3073, COP 3530, COP 3710, CEN 3071</td>
</tr>
<tr>
<td>CNT 4104</td>
<td>Software Proj Comp Networks</td>
<td>3</td>
<td>COP 3530, CEN 3071, CEN 3073</td>
</tr>
<tr>
<td>COP 4610</td>
<td>Operating Systems</td>
<td>3</td>
<td>COP 3530, CDA 3104</td>
</tr>
<tr>
<td>XXX XXXX</td>
<td>SE Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>XXX XXXX</td>
<td>Unrestricted Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Overall GPA ≥ 2.00**

**Complete COP 3530 and CEN 3031 with a grade of “C” or higher**

**Make appointment for graduation check with advising**

**Apply for graduation prior to University deadline**

**Spring (Semester 8)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEN 4935</td>
<td>Senior Software Engineering Proj</td>
<td>3</td>
<td>CNT 4101</td>
</tr>
<tr>
<td>CEN 4072</td>
<td>Software Testing</td>
<td>3</td>
<td>CEN 3073</td>
</tr>
<tr>
<td>XXX XXXX</td>
<td>SE Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>XXX XXXX</td>
<td>SE Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>12</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Overall GPA ≥ 2.00**

Revised October 5, 2018
Effective for AY2018-19
Course Repeat Policy

An undergraduate Software Engineering degree requires 128 semester credit hours for graduation. In order to ensure that students remain on track for a timely graduation, the program has implemented a course repeat policy as described below. For the purposes of this policy, Software Engineering majors must earn a grade of “C” or better in all classes listed in: common program prerequisites, engineering common core, required courses in the major and restricted electives. Withdrawals and grade forgiveness are considered non-progression, and are subject to the course repeat policy.

Within Software Engineering, students may not exceed three repeats in total for all required courses in the program. In addition, students are only allowed a single repeat for one of the following core pre-requisite courses: Calculus I, Calculus II, General Chemistry I, General Physics I and EGS1006L, Introduction to the Engineering Profession. Lastly, for all other required courses, students may not exceed two repeats for any single course.

Advising

Academic advising by designated WCE advisors is provided to maintain the standards of the program and to guide each student. The purpose of academic advising is to assist the student in his/her academic progression throughout the program. Additional information can be found at http://www.fgcu.edu/Eng/advising.html

Academic advisors also provide the following services for students:

- Academic advising and program information for current and potential students
- Referral to faculty mentors and campus resources for career planning
- Communication regarding internship opportunities
- Orientation for students applying for admission to the school
- Assistance with issues related to registration and academic standing
- Evaluation of academic transcripts and articulation of transfer credits
- Maintenance of academic advising records and degree audits
- Certification of graduation

Students are expected to take primary responsibility to meet with their academic advisor on a regular basis to insure completion of all requirements for graduation.

In addition to academic advising, all students are assigned faculty mentor. Students are required to meet with their faculty mentor prior to registering for classes each semester starting in the term the student is enrolled in EGM 3420C. Faculty mentors provide career specific guidance including:

- Service Learning Opportunities
- How to Establish relationships with Faculty and Industry
Standards of Conduct
All students are expected to demonstrate honesty in their academic pursuits. In safeguarding the essential professional standards of honesty and integrity, faculty are compelled to apply academic sanctions which can be as severe as dismissal from the Software Engineering Program. The University policies regarding Standards of Conduct can be found on the Dean of Students’ Office website under Student Resources: https://www2.fgcu.edu/generalcounsel/files/regulations/FGCU_4002_StudentCode_04112017.pdf

Appeal Process - Grades
In accordance with University guidelines, students may appeal the following:
- Grades or other academic action taken by an instructor.
- Grades resulting from an instructor’s:
  - Alleged deviation from established and announced grading policy.
  - Alleged errors in application of grading procedures.
  - Alleged lowering of grades for non-academic reasons.

Please refer to the FGCU Office of Judicial Affairs for the complete Student Grade Appeals process for DEPARTMENT LEVEL, COLLEGE LEVEL and FINAL APPEAL, available online at https://www2.fgcu.edu/studentguidebook/Student_Grade_Appeal_Procedure_(Guidebook).pdf

Attendance and Punctuality
An expectation of professional practice is that students attend all classes, laboratory experiences, class demonstrations, field trips and other academic experiences. Responsibility and accountability for meeting course obligations is a fundamental component of professionalism.

In Classroom:
Students assume responsibility for attending all classes, however in the event a class period is missed, the student is responsible for all material covered and all announcements. Further, punctuality and attentiveness is courteous behavior exemplified by:
• Being on time and remaining for the entire class period.
• Remaining in the classroom until a break or end of the period
• Turning off cell phone and other communication devices.

Civility
The learning environment (classroom, laboratories, field trips, hallways, offices etc.) in which students gain knowledge, values, and competencies is co-created by all who enter into this environment. Students in the U.A. Whitaker College of Engineering conform to, and express themselves in conventional patterns of social behavior. Such behavior is consistently expressed through social politeness, keen sensitivity, respect, and courteous treatment to others.

E-mail Policy
E-mail is an important communication tool used in the U.A. Whitaker College of Engineering. Upon admission to FGCU, all students are assigned an e-mail address that is accessible from any computer via the web page located at FGCU Webmail at http://email.fgcu.edu/.

The FGCU assigned eagle e-mail address is the only address used by U.A. Whitaker College of Engineering faculty to communicate with students via e-mail. Students are responsible and accountable for information sent via this e-mail address and should frequently check e-mails. Faculty in the U.A. Whitaker College of Engineering may use email to communicate information, announcements, and memoranda. Course information such as assignments, handouts, and schedule changes may also be communicated through the email function in the Canvas Learning Management System.

Students should contact the FGCU Computing Services Helpdesk at Trackit@fgcu.edu or (239) 590-1188 for issues with email. The ability to receive and read e-mail, open attachments, and access online information is vital to success in the FGCU College of Engineering.

Grading System
In the U.A. Whitaker College of Engineering, a grade of “C” or better constitutes satisfactory progression. A grade of C- does not constitute satisfactory course completion. It is the responsibility of the student to read and understand the course syllabus and grading policy for each class.

Student Grievance Procedure
The university grievance procedure can be found at https://www2.fgcu.edu/studentguidebook/Student_Grievance_Procedure_(Guidebook).pdf
Undergraduate Student Workload Policy

The Software Engineering program is rigorous and demanding of time, energy, and talent. When making decisions about employment, students are to carefully consider workload expectations of credit hours registered for at FGCU. For example, a 3 credit hour course requires 3 hours classroom plus an additional 9-10 hours study time each week. **Students are expected to make realistic employment decisions as the hours worked outside of university are not an excuse for failing to meet academic and practice performance standards, and Software Engineering Program schedules for classes.**

General Information

Canvas

“Canvas” is the name of the FGCU Learning Management System. Information about Canvas and the log-in page can be found at [https://canvas.fgcu.edu/index.asp](https://canvas.fgcu.edu/index.asp)

College Forms

The following U.A. Whitaker College of Engineering forms can be found online at [http://www.fgcu.edu/Eng/advising.html](http://www.fgcu.edu/Eng/advising.html)

- Request to Change Major/Minor/Catalog Year
- Course Withdrawal Form
- Grade Forgiveness Applications
- Request for Dual Major/Degree
- WCE Appeal for Late Withdrawal Without Academic Penalty
- WCE Incomplete Grade Agreement Form

Confidentiality and Privacy Rights

Cognizance of, and respect for, rights and privileges of others is an expectation of all within the helping professions. Faculty honor and respect the student’s privacy rights and conform to FERPA requirements. Students honor, respect, and maintain confidences and privacy of clients and conform to HIPPA requirements. All student-client encounters, written, oral, or other, obligate confidentiality under all circumstances. For written assignments, only client initials are used as identifiers.

Disability Accommodations Services

Florida Gulf Coast University, in accordance with the Americans with Disabilities Act and the university’s guiding principles, will provide classroom and academic accommodations to students with documented disabilities. If you need to request an accommodation in this class due to a disability, or you suspect that your academic performance is affected by a disability, please contact the Office of Adaptive Services. The Office of Adaptive Services is located in the Wellness Building. The phone number is 239-590-7956 or TTY 239-590-7930
Distance-Learning
Information on distance learning courses and technology requirements is available online at http://itech.fgcu.edu/distance

Name and Address Change
It is the student’s responsibility to report any name or address change to the Office of the Registrar.

Scholarships
FGCU offers University Foundation Scholarships awarded on the basis of academic achievement, financial need, and/or other specifications set by donors. To apply for FGCU Foundation Scholarships, students must fill out the online scholarship application. The application will be available on-line annually between November 15th and March 1st for the following academic year. Useful link for scholarship information is https://www.fgcu.edu/admissionsandaid/financialaid/graduate/typesofaid/scholarships.aspx

Service Learning
Information on service learning at FGCU is available online at http://www.fgcu.edu/Connect/index.html

Student Observance of Religious Holidays
All students at Florida Gulf Coast University have a right to expect that the University will reasonably accommodate their religious observances, practices, and beliefs. Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence. Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances. Where practicable, major examinations, major assignments, and University ceremonies will not be scheduled on a major religious holy day. A student who is to be excused from class for a religious observance is not required to provide a second party certification of the reason for the absence.