College of Engineering and Computer Science

Accelerated BS-to-MS
(designed for current UCF undergraduates)

Dr. Ali P. Gordon (Ali.Gordon@ucf.edu),
Ms. Anna Canlon (Anna.Canlon@ucf.edu),
and Ms. Heather Houser (hstevens@ucf.edu)

Provide Feedback Here

http://cecs.ucf.edu/gradday
Outline

- What is the Accelerated BS-to-MS Program?
- Eligibility
- Application Process
- Benefits
- Trends and Program Specifics
- UCF Graduate Programs
- Summary

CECS Grad Site
http://grad.cecs.ucf.edu
What is the Accelerated BS-to-MS Program?

Program Attributes/Benefit:

- Highly-qualified students in eligible majors can take graduate courses and apply toward both their BS and MS degrees
- Provides students with the opportunity to earn their Master’s degree in less time after the completion of their bachelor’s
- Early identification of areas of graduate study and research
- Easier admission process and waived graduate application fee
- Reduces the cost of earning a graduate degree
- Bright Futures pays 75% of your graduate course tuition when you are an undergraduate student.
- Provides an opportunity to assess your skills in a graduate-level environment
- Allows students to study in smaller class sizes

http://cecs.ucf.edu/gradday
CECS Departments

- Civil, Environmental and Construction Engineering (CECE)
- Computer Science (CS)
- Electrical and Computer Engineering (ECE)
- Industrial Engineering and Management Systems (IEMS)
- Materials Science and Engineering (MSE)
- Mechanical and Aerospace Engineering (MAE)

www.cecs.ucf.edu
Eligibility
Participating Undergraduate Programs

- Aerospace Engineering
- Civil Engineering*
- Computer Engineering
- Computer Science
- Construction Engineering*
- Electrical Engineering
- Environmental Engineering
- Industrial Engineering
- Materials Science & Engineering
- Mechanical Engineering

*Construction Engineering BS → Civil Engineering MS
General Eligibility

- Minimum 3.0 UCF/Major unless indicated otherwise
- “B” or better (not B minuses) required in each program’s required courses
- Must have at least two semesters remaining at UCF (not including current term)
**Program-Specific Eligibility Criteria**

**Aerospace, Biomedical, & Mechanical Engineering**
- EGM 3601 or EGM 3601H
- EGN 3343 or EGN 3343H
- EML 3701 or EML 3701H

**Civil or Construction Engineering**
- STA 3032 or STA 3032H
- EGN 3331C
- CWR 4202C
- CGN 3405

(3.2 GPA Required)
Computer Engineering

(3.2 GPA Required)
- EEL 3123C or EEL 3123H
- EEL 3801C
- COP 3503C or COP 3503H

Electrical Engineering

(3.2 GPA Required)
- EEL 3123C or EEL 3123H
- EEL 3801C
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Program-Specific Eligibility Criteria

• Computer Science
  o COP 3503C or COP 3503H
  o The Foundation Exam

• Environmental Engineering
  (3.2 GPA Required)
  o EGN 3331C
  o ENV 3001
  o CWR 3201C
  o EGN 3343 or EGN 3343H
  o CHM 2046C or CHM 2046H
Program-Specific Eligibility Criteria

- Industrial Engineering
  - EIN 4360
  - MAS 3405 or MAS 3105H
  - EIN 3351

- Materials Science & Engineering
  - EMA 3124
  - EMA 3102
  - EGN 3365 or EGN 3365H
Application Link & Deadlines

Application: [http://tinyurl.com/bs-msapplication](http://tinyurl.com/bs-msapplication)

- Summer 2024 – March 15
- Fall 2024 – July 15
- Spring 2025 – October 15

- Applications will be reviewed within a week after the deadline
- Students will be notified via their email with admission decision
- Notifications should be around a week after the application deadline
Additional Opportunities

Students are not eligible for the BS-MS program if they:

1. Do not have at least 9SCH of courses in their undergraduate degree that can be taken at the graduate level and/or

2. Do not have at least 2 terms remaining prior to graduation

These students are encouraged to:

1. Explore Senior Scholar Options

2. If you still have courses remaining within your undergraduate degree that can be taken at the graduate level, you may request an override to take them as a senior scholar. Please reach out to your undergraduate faculty advisor to find out more. (must have B or better in prerequisites and 3.0 UCF/Major GPA)

3. If you are in your graduating term, please apply to the graduate program directly. We would love to have you continue your education at UCF!
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Timeline

Meet Eligibility Criteria (60-90 SCH | 3.0GPA* | B or better in prerequisite courses)
Apply by application deadline

Get Admitted to BS-to-MS
Submit signed course approval form to Anna.Canlon@ucf.edu

Take Graduate Courses (as early as the semester after acceptance)
Maintain 3.0 GPA in Grad Courses (at least 9 SCH)
Request application fee waiver via e-mail (Ms. Canlon)

Apply to MS Program (see link below)

Last Term at UCF undergrad?
Can take a 6000-level Course

Begin MS Program & POS

Finish BS Program

Finish MS Program

https://applynow.graduate.ucf.edu/apply/
Benefits
Integrating Graduating Courses

Allows high-achieving students to simultaneously earn both a Bachelor of Science and a Master of Science degree (12 hours dual credit)

Basic Eligibility:
3.0 GPA, 60 hours completed hours towards BS, performance in required coursework*

Timeline:
• Complete 60 credit hours
• Apply to and get accepted to BS-to-MS Program
• Take Graduate Courses
• Apply to MS Program
• Finish BS degree
• Finish MS degree

* https://www.cecs.ucf.edu/current-students/bs-ms-program/

http://cecs.ucf.edu/gradday
Benefits of a Master’s Degree

- Advance skillset
- Access to leadership roles
- Improve communication skills
- Enhance network
- Personal achievement
- Pathway to PhD
- And more …

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CECS Accelerated BS-to-MS Information Session: Spring 2024

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Fast Facts

https://grad.cecs.ucf.edu/cecs-highlights-programs-and-fast-facts/

IMMEDIATE PRIMARY PLAN
HEAD START

UNDERGRADUATE
SUMMER 2022 — SPRING 2023

IMMEDIATE PRIMARY PLAN
HEAD START

GRADUATE
SUMMER 2022 — SPRING 2023

First Destination Survey Results

To gauge the success of our academic programs, the University of Central Florida administers the First Destination Survey (FDS) to all its graduating students. For summer 2022 to spring 2023, 1,302 of the 2,084 students who earned an undergraduate degree from the College of Engineering and Computer Science completed the FDS (response rate: 63%). Here is what they said:

Immediate Primary Plan

95%

Head Start

57% had accepted job offers or were working in a position
27% were searching for a position
9% had one or more offers they were considering
6% had more than one position

First Destination Survey Results

To gauge the success of our academic programs, the University of Central Florida administers the First Destination Survey (FDS) to all its graduating students. For summer 2022 to spring 2023, 468 of the 683 students who earned a graduate degree from the College of Engineering and Computer Science completed the FDS (response rate: 69%). Here is what they said:

Immediate Primary Plan

84%

Head Start

66% had accepted job offers or working in a position
7% had more than one offer
5% were searching for a position
19% had one or more offers they were considering

Local Impact

For graduates who planned to enter the workforce, 87% percent accepted a position or are already working in the 11 counties surrounding UCF, and 72 percent will stay in Florida.

Top Employers

For graduates who reported they were already working or had received a full-time job offer, the top companies were:
1. Lockheed Martin
2. Northrop Grumman
3. United
4. Amazon
5. JPMorgan Chase
6. Deloitte & Touche

Relevance

For graduates who planned to enter the workforce, 95% percent reported taking jobs related to their field of study.

Utilizing Resources

Respondents were asked to identify all UCF resources that were used or will be used, to obtain employment.

Earning Potential

For graduates who reported salary information, the average annual income was:

Undergraduate: $77,633
Graduate: $98,194

Operational Excellence and Assessment Support | oes@ucf.edu | For more information visit www.knowledgebase.ucf.edu
“...[T]here is strong evidence that advanced education levels continue to be associated with higher salaries. A study by the Georgetown Center on Education and the Workforce showed that across the fields examined, individuals with a graduate degree earned an average of 38.3% more than those with a bachelor’s degree in the same field. The expected lifetime earnings for someone with a bachelor’s degree, $2.3 million; with a master’s degree, $2.7 million; and with a doctoral degree (excluding professional degrees), $3.3 million. Other data indicate that the overall unemployment rate for individuals who hold graduate degrees is far lower than for those who hold just an undergraduate degree.”

- Pathways Through Graduate School and Into Careers, Council of Graduate Schools (CGS) and Educational Testing Service (ETS), pg. 3.
Graduate Program Types

<table>
<thead>
<tr>
<th>Degree</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
<td>72 hours</td>
</tr>
<tr>
<td>MS</td>
<td>30 hours</td>
</tr>
<tr>
<td>Certificate</td>
<td>9-15 hours</td>
</tr>
</tbody>
</table>

Credit hour requirements for each degree:

- Thesis: 24 hours + 6 hours of research

Additional requirements for CECS Accelerated BS-to-MS Information Session: Spring 2024

BS-to-MS (UCF students only):
- Transfer 12 hours of undergraduate courses towards MS degree
- 12 hours must be graduate courses taken as electives

BS Degree

12 hours of grad courses

128 total credits

More information available at http://cecs.ucf.edu/gradday
graduate.ucf.edu/pathways-to-success/
CECS Accelerated BS-to-MS Numbers

- Program Launched in Fall 2005
- Currently, active Undergraduate Students and Graduate Students

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Undergrad</th>
<th>MS</th>
<th>PhD</th>
<th>Total</th>
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<tr>
<td>CECE</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
<tr>
<td>CS</td>
<td>77</td>
<td>19</td>
<td>5</td>
<td>101</td>
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<tr>
<td>ECE</td>
<td>34</td>
<td>7</td>
<td>2</td>
<td>43</td>
</tr>
<tr>
<td>IEMS</td>
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<td>10</td>
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<tr>
<td>MAE</td>
<td>43</td>
<td>38</td>
<td>20</td>
<td>101</td>
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<tr>
<td>MSE</td>
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<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td></td>
<td>1</td>
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</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>81</td>
<td>29</td>
<td>271</td>
</tr>
</tbody>
</table>

Since Fall 2005, we have awarded 407 graduate degrees to BS to MS Program Participants.
CECS BS-to-MS Years to Degree

- **BS to MS 22-23 AY**
  - Graduates: 44
  - PhD Students: 2

- **All CECS 22-23 AY**
  - MS Students: 563
  - PhD Students: 124

*https://iki.m.ucf.edu/facts/interactive-facts/graduate-program-stats/ using 22-23 AY*
Grad Program Dept. Points of Contact

Civil, Environmental and Construction Engineering
Director: Dr. Andrew.Randall@ucf.edu
Coordinator: TBA

Computer Science
Director: Dr. WZhang.cs@ucf.edu
Coordinator: Ms. Jeanine.Clements@ucf.edu

Electrical and Computer Engineering
Director: Dr. Mingjie.Lin@ucf.edu
Coordinator: Ms. Diana.Poulalion@ucf.edu

Industrial Engineering and Management Systems
Director: Dr. Mansooreh.Mollaghasemi@ucf.edu
Coordinator: Ms. Rebecca.Underhill@ucf.edu

Materials Science and Engineering
Director: Dr. Jiyu.Fang@ucf.edu
Graduate Assistant: Ms. KerryAnn.Wright@ucf.edu

Mechanical and Aerospace Engineering
Director: Dr. Jihua.Gou@ucf.edu
Coordinator: TBA

https://grad.cecs.ucf.edu/academic-programs/departments-and-key-contacts/

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http://cecs.ucf.edu/gradday
Graduate Program Specifics

• Determine Graduate Application Requirements by Program: Letters of Recommendation, Resume, Personal Statement, Transcript, GRE

• Be Aware of Deadlines
  • Deadlines Can be Program Specific—Make Sure to Check
  • Financial Aid (Assistantships) are on a first-come, first-serve basis

<table>
<thead>
<tr>
<th>Application Deadline</th>
<th>Spring</th>
<th>Summer</th>
<th>Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Applicants</td>
<td>December 1</td>
<td></td>
<td>July 1</td>
</tr>
<tr>
<td>International Applicants</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• Graduate tuition is about 28% more than undergraduate tuition (Bright Futures will pay about 74% the graduate tuition)
  • UG: $288.16/credit
  • G: $369.65/credit | **$11,074.5 for 30 credits**
  • BS-to-MS+BF G: $81.49/credit
  • BS-to-MS+BF G: $977.88 for 12 credits + $6,644.77 for 18 credits = **$7,622.58 for 30 credits**

• Current graduate tuition rates for in- and out-of-state is listed here: [https://studentaccounts.ucf.edu/tf-graduate/](https://studentaccounts.ucf.edu/tf-graduate/)

• Time-to-completion is designed to be minimally two additional semesters (saves two semesters)

• Both thesis and non-thesis programs require 30 hours of graduate credit
The **University of Central Florida** was founded in 1963 as Florida Technological University, with the mission of supporting the growing United States space program at nearby Kennedy Space Center and Cape Canaveral Air Force Station.

The motto, “**Reach for the Stars**,” represented the university’s promising aerospace education in engineering, electronics and other technological professions.
RESEARCH

RECORD RESEARCH FUNDING
$214.9M
2022 FISCAL YEAR

#24 RANKING AMONG PUBLIC UNIVERSITIES IN THE U.S. AND 60TH IN THE WORLD FOR PRODUCING PATENTS

8 NATIONAL ACADEMY OF ENGINEERING MEMBERS ON FACULTY
9 CUTTING-EDGE, INTERDISCIPLINARY FACULTY RESEARCH CLUSTERS
50+ AFFILIATED RESEARCH CENTERS AND INSTITUTES

Areas of Strength & Investment

SPACE TECHNOLOGIES AND SYSTEMS
ENERGY AND SUSTAINABILITY
ENTERTAINMENT AND IMMERSIVE EXPERIENCES
TRANSFORMATIVE TECHNOLOGIES AND NATIONAL SECURITY
HEALTH AND HUMAN PERFORMANCE
Research Centers and Faculty

- Advanced Materials Processing Analysis Center (AMPAC)
- **Center for Advanced Transportation Systems Simulation (CATSS)**
- **Center for Advanced Turbomachinery and Energy Research (CATER)**
- **Center for Research in Computer Vision (CRCV)**
- Coastal Dynamics of Sea Level Rise Research Cluster of Excellence
- Consortium for Applied Acoustoelectronics Technology
- Environmental Systems Engineering Institute
- FEEDER Center, DOE
- **Future City Initiative**
- **Institute for Advanced Systems Engineering**
- Interactive Systems & User Experience Research Cluster of Excellence
- Materials Characterization Facility (MCF)
- MIST Center, NSF I/UCRC
- Stormwater Management Academy

2023 Recipients

- Kenie Chen
  Engineering and Computer Sciences
  NSF Director, ERC
  Grant: $500,000

- Zhaomiao (Walter) Guo
  Engineering and Computer Sciences
  NSF Director, ERC
  Grant: $525,781

- Luigi Perotti
  Engineering and Computer Sciences
  NSF Director, ERC
  Grant: $520,769

2022: 8 Winners | 2021: 13 Winners…
Professors

- Write proposals
- Manage research
- Support and mentor graduate/undergraduate
- Publish/Present/Promote
- Teach courses
- Serve on committees
- Consult (if time permits)
Graduate Students

- Manage
- Do research
- Teach
- Take courses
- Publish/Present
- Mentor, teach, and collaborate with undergraduates
- Learn to write research proposals (PhD only)
- Serve on committees
- Consult (if time permits)
Graduate Assistantships

• Grad Assistantships = Work Study for Undergrad Students
• Pays for your in-state tuition, provides a stipend every two weeks, and health insurance
• May or may not include fees
• Variety of Positions
  • GRA – Graduate Research Assistants (Departmental)
  • GTA – Graduate Teaching Assistants (Departmental)
  • Graders (Departmental)
  • GA – Graduate Assistants (Campus Offices – OSI, Housing, Student Union, Office of Research, etc.,)
• In Spring 2024, we hired 508 MS and PhD Students on Grad Contracts
Graduate Fellowships

- **Internal** – ORCGS, Presidential, Trustees, McKnight, McNair, etc.
- **External** – NSF, DoD SMART, DoD NDSEG, NASA, GEM, etc.
- Apply early
  - For Fall 2024 – November time-frame
- Contact prospective faculty advisor early
- Most funding is geared towards PhD students

https://graduate.ucf.edu/fellowships/

RENEWED FOR SPRING 2024

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http://cecs.ucf.edu/gradday
## CECS Graduate Programs

### Graduate Certificate (GC) Programs
- Computer Forensics
- Construction Engineering
- Data Analytics
- Guidance Controls and Dynamics
- Healthcare Systems Engineering
- Mixed Reality Engineering
- Project Engineering
- Quality Assurance
- Structural Engineering
- Systems Engineering
- Technologies for Smart Communities
- Transportation Engineering

### Master’s of Science (MS) Degree Programs
- Aerospace Engineering
- Biomedical Engineering
- Civil Engineering
- Computer Engineering
- Computer Vision
- Computer Science
- Cybersecurity and Privacy
- Data Analytics
- Digital Forensics
- Electrical Engineering
- Engineering Management
- Environmental Engineering
- FinTech*
- Industrial Engineering
- Materials Science and Engineering
- Mechanical Engineering
- Modeling and Simulation*
- Systems Engineering
- Travel Technology and Analytics

### Specialty Graduate Programs
- MS in Engineering Management, Professional Project & Systems Engineering Track (a cohort-based program)
- MS in Data Analytics
- Graduate Certificate in Data Analytics
- MS in Healthcare Systems Engineering Track

### Doctor of Philosophy (PhD) Degree Programs
- Aerospace Engineering
- Big Data Analytics*
- Biomedical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Electrical Engineering
- Environmental Engineering
- Industrial Engineering
- Materials Science and Engineering
- Mechanical Engineering
- Modeling and Simulation*

### New for Fall 2022
- Also offered as fully online
- *Interdisciplinary program

<table>
<thead>
<tr>
<th>Admit Term</th>
<th>Fall Priority</th>
<th>Fall</th>
<th>Spring</th>
<th>Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>App. Deadline Domestic</td>
<td>January 15th</td>
<td>July 1st</td>
<td>December 1st</td>
<td>April 1st</td>
</tr>
<tr>
<td>(International)</td>
<td>(December 1st)</td>
<td>(July 1st)</td>
<td>(July 1st)</td>
<td></td>
</tr>
</tbody>
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CECS Virtual Graduate Programs Open House | Spring 2024
College of Engineering and Computer Science

CECS Graduate Programs Open House

Topics:
- Accelerated BS-to-MS Programs
- MS Programs:
- PhD Programs

http://grad.cecs.ucf.edu/gradday
Summary

• Transitioning to the graduate program takes effort
• Identify your motivation(s)
• Develop a personal roadmap and execute your plan
• You can do this!!!

Join Us at the CECS BS-to-MS Networking and Advising Session: Coming Soon
Thanks for Your Attention

Special Thanks:
CECS:

Ms. Tracey Ziebro and Grad Affairs Team

Wei Zhang, Mansooreh Mollaghasehemi, Andrew Randall, Mingjie Lin, Jihua “Jan” Gou, Liqiang Wang, Jiyu Fang, and Michael Georgiopoulos

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UNIVERSITY OF CENTRAL FLORIDA

Survey