# ACCEND Program Handbook, 2019-2020

# Purpose of the ACCelerated Engineering Degree (ACCEND) Programs

The Accelerated Engineering Degree programs provide qualified students the opportunity to earn an undergraduate degree and a graduate degree in an accelerated time frame. The programs provide students opportunities to complete both degrees in a shorter time frame than the traditional path so that students can enter the workforce with qualifications that distinguish them from their peers, or enter a PhD program more quickly than is possible through the traditional path.

It is important that ACCEND students understand the requirements for successfully completing the program. If you have questions, please see your undergraduate program academic advisor, or the CEAS Graduate Studies Office in 665 Baldwin-513-556-3647, <a href="mailto:engrgrad@uc.edu">engrgrad@uc.edu</a>. For questions about specific graduate programs, please see the table below.

ACCEND Programs	ACCEND	Contact Information
	Manager	
MBA	Karen	karen.mueller@uc.edu
	Mueller, LCB	
MS, Aerospace Engineering, Computer	Julie	julie.muenchen@uc.edu
Engineering, Computer Science, Electrical	Muenchen,	
Engineering	CEAS	
MS, Biomedical Engineering, Chemical	Barbara	barbara.carter@uc.edu
Engineering, Environmental Engineering,	Carter, CEAS	
Materials Science, Mechanical Engineering		
MS, Civil; MEng all programs	Julie Steimle,	julie.steimle@uc.edu
	CEAS	

# **Graduate Program Options**

- 1. **MS:** The ACCEND programs that offer an undergraduate degree in engineering along with the Master of Science in an engineering discipline will appeal to students who are interested in research and greater depth in a particular engineering field. These students often go on to PhD programs or work in fields that require more specialized knowledge. The MS ACCEND track culminates in a research experience and thesis. ACCEND students who pursue a Master of Science degree should identify a thesis advisor prior to the start of the 5<sup>th</sup> year. In order to complete the MS requirements in a timely fashion, students should be working with a graduate advisor on graduate course selection and research.
- 2. **MEng:** The ACCEND programs that offer an undergraduate degree in engineering along with the Master of Engineering will appeal to students who are interested in greater breadth in engineering and want to focus on the practice of engineering. These students often are seeking pragmatic skills and knowledge that will allow them to improve the contribution they make to a technical organization. The MEng provides a traditional coursework based master's degree and does not include a thesis component.
- 3. **MBA** The ACCEND programs that offer an undergraduate degree in engineering along with the Master of Business Administration will appeal to students who want to understand both the

technical side of an organization and the business aspects of the organization. Students seek this program because it increases their value to an organization and prepares them to take on a management role earlier in their careers.

# **ACCEND Program Opportunities**

While other combinations are possible, completing these may require particular attention to elective courses taken during the undergraduate program.

Graduate Programs	Undergraduate Programs Considered for ACCEND	Undergraduate Programs Considered for ACCEND with conditions (i.e. undergraduate prerequisites)
MS, Aerospace	Aerospace Engineering, Mechanical Engineering	
Engineering		
MS, Biomedical	Biomedical Engineering	
Engineering		
MS, Chemical	Chemical Engineering, Environmental Engineering	
Engineering		
MS, Civil	Architectural Engineering, Civil Engineering	Mechanical Engineering
Engineering		
MS, Computer	Computer Engineering, Electrical Engineering	
Engineering		
MS, Computer	Computer Engineering, Computer Science, Electrical	
Science	Engineering	
MS, Electrical	Computer Engineering, Electrical Engineering	Electrical Engineering
Engineering	Computer Engineering, Electrical Engineering	Technology
MS, Environmental	Chemical Engineering, Civil Engineering, Environmental	Electrical Engineering,
Engineering	Engineering  Engineering	Mechanical Engineering
MS, Materials	Chemical Engineering	Biomedical Engineering
Science	Chemical Engineering	Bioincurcai Engineering
MS, Mechanical	Aerospace Engineering, Biomedical Engineering,	Mechanical Engineering
	Mechanical Engineering	Technology
Engineering MEng. Additive	Mechanical Engineering, Aerospace Engineering, Chemical	Technology
MEng, Additive		
Manufacturing	Engineering, Mechanical Engineering Technology	
MEng, Aerospace	Aerospace Engineering, Mechanical Engineering	
Engineering	A 11 CONTROL	
MEng, Architectural	Architectural Engineering, Civil Engineering	
Engineering		
MEng, Artificial	Computer Science, Aerospace Engineering, Electrical	
Intelligence	Engineering	
MEng, Biomedical	Biomedical Engineering, Mechanical Engineering	
Engineering		
MEng, Chemical	Chemical Engineering, Environmental Engineering	Biomedical Engineering
Engineering		
MEng, Civil	Architectural Engineering, Civil Engineering	Mechanical Engineering
Engineering		
MEng, Computer	Computer Engineering, Electrical Engineering	Computer Science
Engineering		
MEng, Computer	Computer Engineering, Computer Science, Electrical	Biomedical Engineering
Science	Engineering	
MEng, Electrical	Computer Engineering, Electrical Engineering	Mechanical Engineering,
Engineering		Electrical Engineering
		Technology
MEng, Environmental	Chemical Engineering, Civil Engineering, Environmental	Computer Engineering,
Engineering	Engineering	Electrical Engineering,
J J		Mechanical Engineering
MEng, Materials	Aerospace Engineering, Chemical Engineering	Biomedical Engineering,
Science		Mechanical Engineering

Graduate Programs	Undergraduate Programs Considered for ACCEND	Undergraduate Programs Considered for ACCEND with conditions (i.e. undergraduate prerequisites)
MEng, Mechanical	Aerospace Engineering, Biomedical Engineering,	Civil Engineering, Mechanical
Engineering	Mechanical Engineering	Engineering Technology
MEng, Robotics and	Aerospace Engineering, Electrical Engineering, Mechanical	Electrical Engineering
Intelligent	Engineering	Technology, Mechanical
Autonomous Systems		Engineering Technology
MBA	All programs	

#### **ACCEND Admission Process**

To be admitted, students must have a cumulative GPA of 3.2 or better after two academic terms as a student matriculated in a CEAS program. Students cannot be deficient in any academic area. Students may apply to ACCEND during the freshman year; the academic record will be reviewed for admission after completion of two academic terms in the College. For students who are admitted immediately after the first year, it is very helpful if they are ahead in the curriculum by about one semester (typically through AP, Post-Secondary or Dual Enrollment credits) but this is not a requirement. A small number of incoming freshmen may be offered admission to the program based on high school achievement and test scores.

Students who seek admission later in the academic program (e.g. after the third year) should be far enough ahead in the undergraduate curriculum, so a graduate program could be completed within two academic terms after completion of the undergraduate degree through ACCEND.

Students can apply through the 4<sup>th</sup> (junior) year. A determination should be made by both the Undergraduate Program Director/Academic Advisor and the Graduate Program Director that the ACCEND program is an appropriate option as compared to the traditional process (first completing the BS degree, then be admitted into a graduate program). Depending on undergraduate credits remaining, students' performance on program specific coursework, and professional goals, an ACCEND program may not be the best choice.

Students complete the <u>Application for ACCEND Program</u> indicating their undergraduate degree program and their intended graduate program.

The ACCEND Program is highly individualized in that students have a variety of advanced standing credits coming into the program and numerous undergraduate and graduate combinations from which to choose. Academic advising is critical to student success. To gain admission, students need to obtain these approvals by obtaining the appropriate signatures on the application form:

- 1. Undergraduate Academic Advisor, or Undergraduate Faculty ACCEND Adviser: The Advisor signs the form verifying that the student has a cumulative college GPA of 3.2 or higher and that the student is in good academic standing. The Advisor also assists students in developing the ACCEND schedule in consultation with Professional Practice. The <u>list of Undergrad Advisors</u> is on the website.
- 2. Graduate Program Director for the student's intended graduate program: The Graduate Director signs to acknowledge that the student will receive academic advising relative to the graduate program and that the program can accommodate the student. The Graduate Director will inform the student about the graduate curriculum, provide the departmental graduate handbook, and will offer appropriate academic advising. The list of Grad Faculty Advisors is on the website.

- 3. ACCEND Program Manager: Please see table on page one for the Manager of your proposed ACCEND program. The Manager signs the form acknowledging that the student has been informed of the characteristics of the program, including academic good standing, requirements for completion of both degrees, variation in tuition between undergraduate and graduate programs and details of the transition from undergraduate to graduate status.
- 4. Assistant Dean for UG Affairs: The Assistant Dean, Dr. Albrecht, signs acknowledging that the student has been assigned to the ACCEND Student Group in Catalyst and updates student records noting the ACCEND program. Students do not need to take the application to the Assistant Dean- the ACCEND Manager will do so.

The application can be denied by any of the individuals required to approve, if the individual determines that the applicant does not or cannot meet the requirements of the ACCEND program.

The completed application should be returned to the front desk of the Graduate Studies Office at 665 Baldwin.

# Structure of the Program

ACCEND programs require all students to meet all of the academic requirements of the undergraduate degree as well as the requirements of the graduate degree. There are several means available to accelerate the completion of the undergraduate degree:

- 1. Many incoming freshmen are ahead due to Advanced Standing credits obtained through successful completion of AP course tests while in high school and / or participation in a College Credit Plus Program while in high school.
- 2. Enroll in courses at UC the summer between freshmen and sophomore years. The courses to take will be recommended by the academic advisor.
- 3. Participate in Cooperative Education for 4 rather than 5 terms. This gives students one additional academic term to complete graduate requirements.
- 4. Register for an additional course (undergraduate or graduate level) during a regular academic term prior to senior year, with the approval of the undergraduate advisor. NOTE: An additional fee will be charged for registration of more than 18 hours in a given semester.
- 5. If the work schedule allows, and with approval of the undergraduate advisor, an evening or on-line course may be taken during a coop term. NOTE: Tuition for part-time enrollment is connected to the level of course taken. If a student registers for a graduate class while on coop graduate tuition will be billed!
- 6. It is also possible to add an additional term (or terms) at the end of the program. While this will add some additional time to the program, this will be the best option for some students.

Many ACCEND students finish the undergraduate degree by the spring term of the 5th year. Depending on the graduate program, the amount of advanced credit a student has coming into the program, co-op schedules and other factors, a student might complete both the undergraduate

and graduate degrees simultaneously; or finish the graduate degree at the end of summer or fall term following completion of the undergrad degree. There is no requirement or expectation that all ACCEND students will graduate with both the undergraduate and the graduate degrees during the same term.

A student should not wait to apply for graduation for the undergraduate degree until completion of the graduate degree. In most cases, a student should have the undergraduate degree certified as soon as they have completed undergraduate degree requirements.

# **Registration and Tuition Costs**

ACCEND Students must apply to the Graduate School prior to taking any graduate level courses. Both the undergraduate and the graduate programs will be open – students will register for graduate classes in the graduate career, and undergraduate classes in the undergraduate career.

### **Important Billing Information**

- When a student registers for 6 or fewer graduate level semester hours, tuition and fees will be at the undergraduate level.
- When a student registers for 7 or more graduate level semester hours, tuition and fees will be at the graduate level.
- Part time course registration is billed according to level of course undergraduate or graduate

Please visit the <u>Bursar's Office</u> website for billing information at the graduate level. Tabs direct you to the costs by college. Please note the cost of graduate tuition in the MBA program is higher than the cost of graduate tuition in CEAS. Course planning is of critical importance. <u>Students are encouraged not to take more than 6 graduate credits any semester prior to the fifth year.</u>

# **To Apply to the Graduate School**

- 1. Go to the <u>Graduate School website</u> and create an account
- 2. Once you have the account login, go to the program choice
- 3. Search for the program by college
- 4. Select the proper College for your graduate degree program
- 5. Select the proper graduate program
  - For Engineering programs, select the term in which you plan to take your first graduate class (fall or spring term only) and contact your ACCEND manager (Julie Muenchen, Barbara Carter, or Julie Steimle once the application is submitted. The deadline is typically one month before the term begins, so please plan accordingly.
  - For the MBA program, select the appropriate term Application deadlines
    - Fall August 1st
    - Spring December 1<sup>st</sup>
    - Summer April 1st
- 6. Select Full-time
- 7. For the question, "Are you a current UC undergraduate student who is applying for an Accelerated Integrated Masters (AIM) Program?" select YES (AIM is what the grad school calls ACCEND). This will prevent you from paying the application fee.
- 8. Click Continue

#### **Academic History section**

- 1. You are filling in information related to your <u>undergraduate</u> degree. Indicate level of study as undergraduate, degree as baccalaureate, and dates from when you started through the current date. You will also need to indicate the expected date of the conferral of your bachelor's degree.
- 2. Provide your electronic signature Confirm Review Click Submit
- 3. ACCEND students do not need to provide transcripts. When prompted for an unofficial transcript, upload a PDF of your Degree Audit and attach it to the application. When you receive your confirmation email, it will ask again that you send in transcripts. You do not have to complete this step.

For information on the application process contact the following people:

- MS: Julie Muenchen (julie.muenchen@uc.edu) or Barbara Carter (barbara.carter@uc.edu)
- MENG or Civil Engineering MS: Julie Steimle (julie.steimle@uc.edu)
- MBA Karen Mueller (karen.mueller@uc.edu)

#### **Financial Aid**

- ACCEND students who take more than 6 credit hours of graduate coursework prior to the fifth year are in jeopardy of losing federal financial aid (this is not a UC decision, it is dictated by the federal government)
  - Once you are in your fifth year you have accumulated sufficient credits so that you can be eligible for federal aid for graduate students
  - o If a student does not need federal financial aid there may be exceptions to this rule
- When the graduate classes total no more than 6 hours, Federal Financial Aid will not be effected.

#### **Scholarships**

#### **CEAS MS and MENG programs**

- Graduate Incentive Scholarships (GIA) are given to ACCEND students for the last one or two terms of the program. Students must be enrolled in 7 or more graduate credits each term to qualify.
- For Academic Year 2019-2020, the GIA award for in-state students in the MS program is \$4711. The GIA award for in-state students in the MENG program is \$2400.

#### **MBA Program**

- Students with a 3.5 undergraduate GPA at the time of transition are eligible for the 3.5 scholarship award.
- To be eligible, students must be in their final year, and must be taking a minimum of 7 semester hours of MBA courses.

Some undergraduate scholarships will carry over after a student becomes a graduate student. ACCEND students should discuss this with their advisor.

## **Academic Good Standing**

In order to be in academic good standing, students must meet the criteria listed below. While a 3.2 cumulative GPA is required for admission, students are required to maintain a minimum GPA of 3.0. A GPA of 3.0 or better is required to graduate with a master's degree.

- Any academic term after admission, a student will receive a probation letter the first time their GPA is below 3.0. If a student has been warned once and their GPA is below 3.0 for a second academic term, they will be dismissed from ACCEND and transitioned to their traditional undergraduate program.
- If students do not make appropriate progress on their undergraduate degree program, they will be advised to pursue the traditional method of obtaining the graduate degree and be dismissed from ACCEND.

#### **Advising**

The major challenge in the ACCEND programs is course scheduling. Because students often come with a range of advanced standing credit, schedules can vary substantially from that of students in the traditional programs. It is ultimately the students' responsibility to ensure that all academic criteria, including all course requirements, are met. It is particularly important for ACCEND students to meet with their academic advisor frequently in order to stay on track with the curriculum. In general, students should meet with the individuals listed below for help with the items indicated:

- Undergraduate Program Advisor: undergraduate course scheduling, overall program schedule (academic terms and co-op terms), selection and scheduling of electives, undergraduate degree requirements.
- ACCEND Manager: advice on options within ACCEND MS MEng MBA, transition issues between undergraduate and graduate status, help on identifying points of contact (e.g. Graduate Program Advisor), financial considerations (e.g. courses taken on co-op, transition from undergrad to grad, scholarship issues).
- Professional Practice Advisor: scheduling of co-op terms (in coordination with the undergraduate program advisor) and opportunities for international co-op.
- Graduate Program Director: advice on selection and scheduling of graduate course; for MS students in CEAS programs, assistance in identifying a thesis advisor; for MEng students, assistance in identifying a capstone advisor.

# **Graduation Requirements**

Students are required to meet all the requirements of both traditional undergraduate program, and of the graduate program.

Students will need to apply to graduate from both programs and will pay the graduation fee for both.

Students cannot graduate from the Graduate Program before graduation from the undergraduate program. Students can graduate from both programs in the same term, or with the BS degree one term, and the MS, MENG, or MBA in a later term.

- Credit hour requirement: Students are required to complete a minimum number of
  graduate credit hours established by the program. The number of required credit hours
  differs from program to program. Dual level courses taken for undergraduate credit\_
  cannot be used for graduate credit. Students should refer to their programs Graduate
  Student Handbook for specific requirements. CEAS graduate degrees require the
  completion of 30 credit hours. Degrees from other colleges may require a greater number
  of credit hours.
- Program of study: Students are required to complete and submit a program of study with the Program's Graduate Director who must sign the program of study. This should be submitted when a student transitions to graduate status and at the completion of each year as a graduate student.
- Thesis: Students in Master of Science programs are required to complete a thesis. Students in Master of Engineering programs are not required to complete a thesis, but do need to complete a capstone (project, paper, or internship).
- Minimum Academic Performance: Students must maintain a cumulative college GPA of 3.0 for their graduate course work.

## **Program Transitions**

Students can elect to transition from an ACCEND program to the traditional program by completing the Change of ACCEND Program form.

Students can also request to change their graduate degree program from one area to another (e.g. from MEng in Mechanical Engineering to MBA) using the Change of ACCEND Program form. This transition must be approved by the "current" Graduate Program Director and the "proposed" Graduate Program Director. The Undergraduate Adviser, ACCEND Manager and the Assistant Dean for Undergraduate Affairs also sign the form in order to advise and maintain appropriate records.

The Change of ACCEND Program form is online.