ACCEND Program Handbook

2016-2017
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 ACCEND Manager – Anne Hoehn – 633 Rhodes Hall; anne.hoehn@uc.edu, 556-5341

Graduate Program Options
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.

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 and does not include a thesis component.

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.

MEd - The ACCEND programs that offer an undergraduate degree in engineering along with the Master of Curriculum and Instruction will appeal to students who have an interest in teaching in high school, middle school or possibly a community college. The program provides the rigorous technical education of the engineering degree along with the teaching skills and certifications needed to work in education.

The following chart indicates the potential combination of undergraduate engineering and technology degrees and the graduate degrees. It is important to note that while some combinations are possible, completing these may require particular attention to elective courses taken during the undergraduate program.
**ACCEND™ Program Opportunities**

<table>
<thead>
<tr>
<th>Graduate Program</th>
<th>Aerospace</th>
<th>Architectural</th>
<th>Biomedical</th>
<th>Chemical</th>
<th>Civil</th>
<th>Computer Science</th>
<th>Electrical</th>
<th>Environmental</th>
<th>Mechanical</th>
<th>Construction Management</th>
<th>Electrical Engineering Technology</th>
<th>Mechanical Engineering Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Science (M.S.)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerospace Engineering</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>X</td>
<td>X</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Engineering</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>X</td>
<td>X</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials Science</td>
<td>+</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master of Engineering (M.Eng)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerospace Engineering</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>X</td>
<td>X</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Engineering</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>X</td>
<td>X</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials Science</td>
<td>+</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>X</td>
<td>X</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master of Business Administration (MBA)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master of Curriculum &amp; Instruction (M.Ed)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**X** Program combinations available

+ Program combinations may require specific undergraduate courses/electives to prepare students for graduate study

**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 1st year it is very helpful if they are ahead in the curriculum by about 1 semester (typically through AP, Post-Secondary or Dual Enrollment credits) but this is not a requirement.

Students who seek admission later in the academic program (e.g. after the 3rd 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 completion of the 4th (junior) year. A determination should be made by either or 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 complete BS 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 “Application for ACCEND Program” indicating their undergraduate degree program and their intended graduate program. The application is available on the ACCEND website and in Rhodes Hall 633 and should be returned there. 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.

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 regarding the graduate handbook and advising.

3. ACCEND Program Manager
   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 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.

**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. In order to accelerate the completion of the undergraduate degree, there are three primary means used:

1. Many incoming freshmen are ahead in credits 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. Participate in Cooperative Education for 4 rather than 5 terms. This gives students one additional academic term.

3. Register for a distance learning course during coop term(s). If the work schedule allows, an evening course may be taken. See Cost of Program for information on part-time enrollment tuition.

One or a combination of these options allow students to be ahead by 3 academic terms over the traditional schedule which in turn allows accelerated completion of both the undergraduate and graduate degrees. Students who are not ahead in the curriculum or who elect not to miss a co-op term will typically require an additional academic term to complete the graduate degree.

For those who do not have this opportunity or who have not taken advantage of advanced placement or post-secondary courses, there are several other means to meet this requirement:

1. Enroll in courses at UC the summer between freshmen and sophomore years. The courses to take will be recommended by the academic advisor.

2. Take an additional course during certain academic terms. Students should check with their academic advisor prior to this to determine appropriate courses and workload. This will not be an appropriate option for all students.

3. It is also possible to add an additional term at the end of the program. While this will add some additional time to the program, this could be the best option for some students.

ACCEND students typically 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 register 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 will be in one of the three categories below:

1 - Students who have not transitioned to Graduate Status, who are taking Graduate Level Courses
On the Registration site – you will register for all of your classes in your Undergraduate Career – since this is the only open career. Please be aware of billing issues:

BILLING INFORMATION FROM THE BURSAR WEBSITE
http://www.uc.edu/bursar/fees.html Click the “Expand All” button to view the information quoted above.

Full-time students taking classes outside of their primary career and/or campus, where costs are higher, will be subject to a “differential fee.” The amount of the fee is the difference between their primary career/campus flat rate instructional fee and the higher career/campus instructional fee. This fee will be assessed only when enrollment in the higher career/campus exceeds 6 units (7+ units). Students taking fewer than 7 hours will not be assessed this fee. The same applies to the non-resident surcharge (in some cases the non-resident surcharge is less so student will receive a waiver for the difference).

This means that IF you register for 7 or more GR hours, you will be billed graduate tuition. The “Differential Fee” brings the UG fee up to Graduate Tuition.

2 - Students who have transitioned to Graduate Status and your Undergraduate Program is still open - When entering the registration functionality, students with “dual careers” will be asked to select the career in which they want to register. On the Registration Site:
- Select your Graduate Career Registration
- Register for your GR courses in your Graduate Career
- Exit Out of Registration
- Re-enter Registration – Select your Undergraduate Career
- Register for your UG courses in your Undergraduate Career
*This must be done so courses go to the correct transcript

BILLING INFORMATION FROM THE BURSAR WEBSITE
http://www.uc.edu/bursar/fees.html Click the “Expand All” button to view the information quoted above.

For students active in more than 1 career (undergraduate, graduate, law, or medicine), the system will look at the student’s enrollment in each career for the term. The number of units taken in each career will determine the primary career and program. Tuition and fees will be calculated based on this determination.

To clarify - If more graduate credits are taken than undergraduate credits, your primary career and program will be the graduate program and you will be assessed graduate tuition and fees. If more
undergraduate credits are taken than graduate credits, your primary career and program will be the undergraduate program and you will be assessed undergraduate tuition and fees.

3- Students who are in the Undergraduate Career and taking all UG courses are not impacted by the information above – HOWEVER – Please be aware of these changes when you start taking Graduate courses, and when you transition to Graduate Status.

Part Time Status
If a student elects to take a course while on co-op (distance learning or in person) they will be charged the part time rate applicable to the level of the course since co-op terms are not considered academic terms. For example if a student, while undergraduate status, elects to take a graduate MBA course, they will be charged the part time rate applicable for MBA courses.

Scholarship Assistance
A Graduate Incentive Award may be available to graduate students. The College in which the student is earning the graduate degree sets the policy for GIA awards and decides on amounts of the award.

In order to be eligible for a GIA from CEAS, ACCEND students must be pursuing a graduate degree in CEAS and have transitioned to graduate status. In addition students must take a minimum of 12 graduate credit hours each term to qualify for a GIA. All 12 credit hours each term must be for courses taken as credit and not audit. GIA funds will be awarded on an availability basis with a maximum of 2 semesters of GIA funding.

ACCEND students pursuing graduate degrees in Colleges other than CEAS are subject to that College’s rules regarding awarding of GIA funds.

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 every subsequent term.

1. Any academic term after admission, a student will receive a warning letter the first time their GPA is < 3.0. If a student has been warned once and their GPA is below 3.0 for a 2nd academic term, they will be dropped from ACCEND and transitioned to their traditional undergraduate program.

2. If students do not make appropriate progress on their undergraduate degree program, they should be advised to pursue the traditional method of obtaining the graduate degree and be dropped from ACCEND
Advising
The major challenge in the ACCEND programs is course scheduling. Because students often come with a range of advanced 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 MEd, 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). All ACCEND forms are available from the ACCEND Manager

- 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 courses. In CEAS programs - MS students – assistance in identifying a thesis advisor, for MEng students – assistance in identifying a capstone advisor.

Distance Learning
Students may need to take courses while on co-operative education assignments to stay on track with the curriculum. Distance learning courses are available via the web and provide the same instruction that a student on-campus would receive. The distance learning courses follow the same curriculum and academic schedule as the traditional course but can be completed independently. Certain engineering courses are available through distance learning as are a number of Breadth of Knowledge courses. Students can check with their advisor to determine what courses are available through distance learning or search within One Stop.

Students who are below full-time – 11 or fewer credit hours - will be required to pay the rate established by the part-time fee schedule. In general academic scholarships will not cover the courses taken as a part-time student while on co-op. Scholarships, for example Cincinnatus, are awarded for a maximum of 8 academic semesters. It is generally not in the student’s best interest to use the scholarship funds during the co-op term.

Transitioning from Undergraduate to Graduate Status
Students in ACCEND programs typically transition to graduate status before they complete all requirements for the undergraduate program. In most cases students will transition to graduate status prior to or during the 5th year depending upon the program. Students should talk with the ACCEND Manager regarding this transition.
In ACCEND programs for which the graduate degree is not in CEAS, students must be a matriculated student in the graduate program for **two terms**. This requires that students transition to graduate status for their final two academic terms whether they have completed all undergraduate degree requirements or not. For example, a student who will complete all the requirements of an undergraduate CEAS program and all the requirements of an MBA program at the completion of the spring semester of the 5th year, must transition to graduate status in the Lindner College of Business before the fall semester of the 5th year.

Students who earn both the undergraduate and the graduate degrees in CEAS will typically transition to graduate status either just before the fall of the 5th year or just before the spring of the 5th year.

**Graduate Requirements**

Students are required to meet all the requirements of the traditional graduate program. Students should get a copy of the program specific Graduate Student Handbook for their particular degree, and become familiar with all the requirements of the degree. Some items of particular note:

- **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.

- **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 College “ACCEND Transition 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). 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.

**Items of Note**
ACCEND programs require an additional level of diligence on the part of students, particularly in course selection and scheduling. Students are encouraged to meet with their undergraduate academic advisor frequently.

ACCEND students who pursue a Master of Science degree should identify a thesis advisor prior to the start of the 5th 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.

The University student records system only accommodates one active academic program at a time. As a consequence of this, certain records must be maintained outside the system. When a student transitions to graduate status, the online records no longer show the student’s undergraduate GPA. CEAS maintains the student’s undergraduate GPA and classification for Latin honors.

When a student transitions from undergraduate status to graduate status there may be a delay in populating appropriate email communication lists. Students are advised to continue to meet with the undergraduate advisor to ensure no important communications are being missed.