

Electrical and Computer Engineering/Business Administration, Honors (BSECE/BBA)

Honors Electrical and Computer Engineering and Business (ECB) is a dual degree program between the Canfield Business Honors Program (Canfield BHP) and the Chandra Family Department of Electrical and Computer Engineering (ECE). The dual degree program's five-year undergraduate curriculum aims at preparing students for engineering and business careers. Students must successfully complete all requirements for both programs to receive a Bachelor of Science in Electrical and Computer Engineering with the ECE Honors transcript distinction and a Bachelor of Business Administration. Additional information is available from the undergraduate advisor for electrical and computer engineering.

Admission to the ECB program is limited to a small number of high-performing students who are chosen on a competitive basis. Students selected for the program will have demonstrated exceptional potential for success in both engineering and business. Admission decisions are made by the ECB committee. Students enter the program as a freshman.

The ECB program has its own admissions criteria and requirements that supplement the standard admissions requirements for the Cockrell School of Engineering, Canfield BHP, and UT Austin. Students will apply to the dual degree program in parallel with their application to UT Austin, the Cockrell School of Engineering, and the McCombs School of Business.

Students entering the university as freshmen may apply to the ECB program by completing a separate online application available through the UT Austin Office of Admissions. The committee considers the student's SAT Reasoning Test or ACT scores, high school rank, preparatory courses, extracurricular activities, evidence of leadership ability, and other objective criteria.

Total Hours Required: 159

Plan of Study

The Plan of Study is a suggested four-year course sequence to support academic planning and serves as a helpful guide. Currently enrolled students should meet with their academic advisor to tailor their course selections and timelines to their individual goals and circumstances.

Course	Title	Hours
Year 1		
Semester 1		
RHE 306	Rhetoric and Writing	3
<u>First-Year Signature Course (090)</u>		3
M 408C	Differential and Integral Calculus	4
ECE 302H	Introduction to Electrical Engineering: Honors	3
<u>Visual and Performing Arts (050)</u>		3
Hours		16
Semester 2		
ECE 319H	Introduction to Embedded Systems: Honors	3
M 408D	Sequences, Series, and Multivariable Calculus	4
B A 324H	Business Communication: Oral and Written: Honors	3
<u>Social and Behavioral Sciences (080)</u>		3
Approved PSY, SOC, ANT, EDP		3
Hours		16

Year 2		
Semester 1		
PHY 303K	Engineering Physics I	3
ECO 304K	Introduction to Microeconomics	3
<u>U.S. History (060)</u>		3
<u>American and Texas Government (070)</u>		3
ACC 366P	Accounting Practicum	3
MAN 336H	Organizational Behavior: Honors	3
Hours		18
Semester 2		
PHY 105M	Laboratory For Physics 302K, 303K, and 317K	1
ECO 304L	Introduction to Macroeconomics	3
<u>U.S. History (060)</u>		3
<u>American and Texas Government (070)</u>		3
MAN 327H	Innovation and Entrepreneurship: Honors	3
ACC 312H	Fundamentals of Managerial Accounting: Honors	3
Hours		16
Year 3		
Semester 1		
PHY 303L	Engineering Physics II	3
PHY 105N	Laboratory For Physics 302L, 303L, and 317L	1
ACC 311H	Fundamentals of Financial Accounting: Honors	3
ECE 411H	Circuit Theory: Honors	4
ECE 313H	Linear Systems and Signals: Honors	3
BAH 110G	Topics in Professional Growth I	1
BAH 151H	Lyceum	1
Hours		16
Semester 2		
STA 235H	Data Science for Business Applications: Honors	2
FIN 357H	Business Finance: Honors	3
ECE 351H	Probability and Random Processes: Honors	3
ECE 306	Introduction to Computing	3
D S 235H	Introduction to Decision Science: Honors	2
LEB 323H	Business Law and Ethics: Honors	3
BAH 111G	Topics in Professional Growth II	1
Hours		17
Year 4		
Semester 1		
ECE 411	Circuit Theory	4
ECE 313	Linear Systems and Signals	3
MAN 101H	Leadership Challenges and Innovation: Honors	1
MAN 374H	General Management and Strategy: Honors	3
MIS 301H	Introduction to Information Technology Management: Honors	3
B A 120G	Topics in Professional Growth III	1
B A 130G	Topics in Professional Growth IV	1
Hours		16
Semester 2		
ECE 351K	Probability and Random Processes	3
ECE 364D	Introduction to Engineering Design	3
ECE 464K	Senior Design Project	4
MKT 337H	Principles of Marketing: Honors	3
O M 235H	Operations Management: Honors	2
STA 301H	Introduction to Data Science: Honors	3
B A 140G	Topics in Professional Growth V	1
Hours		19
Year 5		
Semester 1		
Hours chosen from: Advanced technical elective		3
Hours chosen from: Advanced technical elective		3
Hours chosen from: Advanced technical elective lab		4
Hours chosen from: Mathematics technical elective		3
Hours		13
Semester 2		
Hours chosen from: ECE advanced technical elective		3

Hours chosen from: ECE advanced technical elective	3
Hours chosen from: ECE advanced technical elective	3
Hours chosen from: Upper-division ECE	3
Hours	12
Total Hours	159

Requirements

All requirements are listed below, starting with the most specialized moving to the most general. Additional requirements may follow the table, so be sure to read the entire page. Some required courses listed below may also satisfy [General Education](#) requirements, including [Core Curriculum](#).

Code	Title	Hours
Degree (see details below)		
Bachelor of Business Administration		
Hours chosen from: Anthropology, psychology, educational psychology, or sociology with a primary focus other than statistics or data processing or for Plan II dual majors, S S 302C, S S 302D, S S 302E, S S 302F		3
B A 324H	Business Communication: Oral and Written: Honors (substitutes for ECE 333T)	3
or COM 324H	Introduction to Business Communication: Honors	
ACC 311H	Fundamentals of Financial Accounting: Honors (substitutes for ECE lower-division elective)	3
ACC 312H	Fundamentals of Managerial Accounting: Honors	3
STA 235H	Data Science for Business Applications: Honors (substitutes for ECE advanced math or basic science)	2
FIN 357H	Business Finance: Honors (substitutes for ECE technical component elective)	3
MAN 336H	Organizational Behavior: Honors (substitutes for ECE free elective)	3
MAN 327H	Innovation and Entrepreneurship: Honors (substitutes for ECE free elective)	3
BAH 110G	Topics in Professional Growth I	1
BAH 111G	Topics in Professional Growth II	1
B A 120G	Topics in Professional Growth III	1
B A 130G	Topics in Professional Growth IV	1
B A 140G	Topics in Professional Growth V	1
BAH 151H	Lyceum	1
A professional, business-related experiential learning course chosen from the following:		3
ACC 366P	Accounting Practicum	
B A 353	Internship in Business Administration	
B A 653	Internship in Business Administration	
FIN 366P	Finance Practicum	
MAN 347P	Entrepreneurship Practicum	
MAN 366P	Management Practicum: Social Entrepreneurship I	
MAN 367P	Social Entrepreneurship II	
MAN 369P	Social Innovation Practicum	
MIS 366P	Management Information Systems Practicum	
MKT 366P	Marketing Practicum	
O M 366P	Operations Management Practicum	
D S 235H	Introduction to Decision Science: Honors	2
LEB 323H	Business Law and Ethics: Honors	3
MAN 374H	General Management and Strategy: Honors	3

MIS 301H	Introduction to Information Technology Management: Honors	3
MKT 337H	Principles of Marketing: Honors	3
O M 235H	Operations Management: Honors	2
STA 301H	Introduction to Data Science: Honors	3
Bachelor of Science in Electrical and Computer Engineering		
ECE 402H	Introduction to Electrical Engineering: Honors (Taken in their first year)	4
or ECE 402	Introduction to Electrical Engineering	
ECE 406H	Introduction to Computing: Honors (Taken in their first year)	4
or ECE 406	Introduction to Computing	
ECE 412H	Software Design and Implementation I: Honors (Taken in their first year)	4
or ECE 412	Software Design and Implementation I	
ECE 419H	Introduction to Embedded Systems: Honors (Taken in their first year)	4
or ECE 419K	Introduction to Embedded Systems	
Hours chosen from:		3
ECE 411H	Circuit Theory: Honors	
or ECE 411	Circuit Theory	
ECE 313H	Linear Systems and Signals: Honors	
or ECE 313	Linear Systems and Signals	
ECE 351H	Probability and Random Processes: Honors	
or ECE 351K	Probability and Random Processes	
ECE 464H	Honors Senior Design Project	
or ECE 464K	Senior Design Project	
ECE 364D	Introduction to Engineering Design (when taken in conjunction with ECE 464H)	
ECE 306	Introduction to Computing	3
ECE 411	Circuit Theory	4
or ECE 411H	Circuit Theory: Honors	
ECE 313	Linear Systems and Signals	3
or ECE 313H	Linear Systems and Signals: Honors	
ECE 351K	Probability and Random Processes	3
or ECE 351H	Probability and Random Processes: Honors	
ECE 364D	Introduction to Engineering Design	3
ECE 464K	Senior Design Project	4
or ECE 464H	Honors Senior Design Project	
Hours chosen from: Advanced technical elective		6
Hours chosen from: Advanced technical elective lab		4
Hours chosen from: Mathematics technical course		3
Hours chosen from: ECE technical component elective		9
Hours chosen from: Upper-division ECE course or ECE 316		3
Subtotal		115

Shared Requirements

Select one of the following sequences:	8
M X08C	Differential and Integral Calculus
& M X08D	and Sequences, Series, and Multivariable Calculus
M X08K	Differential Calculus
& M X08L	and Integral Calculus
& M X08M	and Multivariable Calculus
Select one of the following sequences:	4
PHY X03K	Engineering Physics I
& PHY X05M	and Laboratory For Physics 302K, 303K, and 317K
PHY X01	Mechanics
& PHY X01L	and Laboratory for Physics 301

PHY X17K & PHY X17M	General Physics I and Laboratory for Physics 317K	
PHY 303E	Electromagnetic, Quantum, and Semiconductor Physics	3
ECO 304K	Introduction to Microeconomics	3
ECO 304L	Introduction to Macroeconomics	3
Free electives: Additional coursework to reach total hours required.		0
<i>Subtotal</i>		21
<u>General Education</u>		
<u>Remaining Core Curriculum (42 hours total)</u>		23
<u>Foreign Language other than English, Beginning Proficiency</u>		
<i>Subtotal</i>		23
<u>College Requirements - Engineering</u>		
<u>College Requirements - Business</u>		
<u>General University Requirements</u>		
Total Hours		159

Additional Requirements and Policies

- Students are expected to take the Honors version of any ECE course being offered.
- Students in the ECB Honors Program must complete all ECE curriculum requirements and a minimum of 125 hours. Please refer to the Engineering “Degrees and Programs” section of this catalog for technical course options within each linked degree major program.
- Students may appeal to take an ECE graduate course for undergraduate credit to substitute for ECE Honors credit, but are not permitted to exceed 6 hours of graduate coursework for honors requirements. Note that this does not apply for graduate courses taken for graduate credit as part of a graduate or integrated BSECE/MSECE program.
- All ECE honors courses are used to fulfill ECE course requirements.

Academic Standards

A student who enters ECB as a freshman must have a grade point average (GPA) of at least 3.25 on the Canfield BHP courses taken in residence during the fall and spring semesters of the first year to continue in the program. An ECB student must maintain a GPA of at least 3.3 in their ECE courses (honors and non-honors) and must be in good standing according to current policies of the ECE department and Canfield BHP. Students must complete at least 12 semester hours in residence on a letter-grade basis during the fall and spring semesters of the first year.

After freshman year, students are dismissed from the program if their overall business GPA drops below 3.25 or ECE GPA drops below a 3.3. Students failing to meet these requirements will be placed on warning for one semester, and then dismissed from the ECB program if they fail to improve their GPA. Students dismissed from the honors program become part of their first-choice major indicated on their admissions application unless they petition to join their second-choice major.

Students must also know and abide by the academic and disciplinary policies given in this catalog and in the General Information Catalog. Those who fail to do so will be considered for academic dismissal from the program. Under special circumstances, and at the discretion of the ECB program committee, a student will be allowed to continue in the program under academic review. Students in scholastic difficulty should discuss their problems with the ECB program director(s) and their academic advisor(s).

Graduation

To graduate under the ECB program, the student must earn a university GPA of at least 3.25, a GPA of at least 3.25 in business courses, and a GPA of at least a 3.3 in electrical and computer engineering courses. A candidate for any degree must be enrolled at The University of Texas at Austin in the semester or summer session in which the degree is awarded.

Students in the ECB program must satisfy the university Core Curriculum and the combined degree requirements for a Bachelor of Science in Electrical and Computer Engineering with the ECE Honors transcript distinction and a Bachelor in Business Administration. If students later elect to complete only one degree, they must consult their academic advisor(s) and fulfill all degree requirements.