Department of Industrial and Engineering Technology

Mohammad Saadeh, *Department Head*

Engineering Technology

Engineering Technology is a profession in which knowledge of applied mathematics, natural sciences, and engineering methods gained by higher education and practice is used for the development of technological advances and for applications of existing technology to various industries. An Engineering Technology program is different from a classical engineering one in that it is devoted primarily to the utilization of available engineering techniques and methods to solve practical technological problems. The Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.

Engineering Technology Concentrations

Students must elect to study one of the Engineering Technology Concentrations: Computer Engineering Technology, Construction Engineering Technology, Electrical Energy Engineering Technology, Mechanical Engineering Technology, or Mechatronics Engineering Technology. A Bachelor of Science degree will be awarded upon successful completion of the required course work, which includes the Engineering Technology core curriculum, the required curriculum for each individual concentration, and the relevant technical electives.

Honors Diploma in the Discipline

For information on earning Sophomore Honors Distinction, Upper Division Honors Distinction, or the Honors Diploma, please consult The University Honors Program section of this catalogue, the Director of the Honors Program, and/or your Department Head.

Major

There are 33 credit hours of required core courses, 30 to 33 credit hours of concentration required courses, and an additional six to nine credit hours of technical elective courses required for the Bachelor of Science degree in Engineering Technology.

Curriculum in Engineering Technology
Leading to the Degree of Bachelor of Science
Computer Engineering Technology Concentration

First Year

FIRST SEMESTER	S.H.	SECOND SEMESTER	S.H.
††Engineering Technology 100	3	††Engineering Technology 241	3
††Engineering Technology 111	3	English 102 or 102H[G]	3
††Mathematics 175[G]	5	††Mathematics 200[G]	5
English 101 or 101H[G]	3	††OSHE 111	3
Southeastern 101	2	Economics 201 or 202[G]	3
	16		17

Second Year

††Engineering Technology 202	3	††Engineering Technology 205	3
††Engineering Technology 212	3	††Engineering Technology 214	3
††Engineering Technology 213	3	††Engineering Technology 221	3
General Biology 151[G]	3	English 230, 231, or 232[G]	3
Biology Lab 152	1	Physics 191[G]	3
Communication 211[G]	3	Physics Lab 193	1
	16		16

Third Year

††Engineering Technology 215	3	††Engineering Technology 325	3
††Engineering Technology 225	3	††Engineering Technology 320	3
††Industrial Technology 407	3	††Engineering Technology 492	3
Chemistry 121	3	English 322	3
History 101, 102, 201 or 202[G]	3	Physics 192[G]	3
		Physics Lab 194[G]	1
	15		16

Fourth Year

††Engineering Technology 410	3	††Engineering Technology 425	3
††Engineering Technology 493	3	††Engineering Technology 490	1
††Technical Elective I[2]	3	††Engineering Technology 494	3
††Technical Elective II[2]	3	††Technical Elective III[2]	3
Music, Art, Theatre, or Dance[G]	3	Social Sciences[1,G]	3
	15		13

Total semester hours required 124

Southeastern 101 is not required of transfer or readmitted Southeastern students with 30 hours or more. Those students will replace Southeastern 101 with 2 hours of electives.

[G]General Education Courses
††A grade of "C" or better is required in all major courses; and overall GPA of 2.0 is required to graduate.
[1]Economics, Psychology, Anthropology, Sociology, Criminal Justice or Political Science.
[2]Technical electives should be selected by students in consultation with their advisor.

Curriculum in Engineering Technology
Leading to the Degree of Bachelor of Science
Construction Engineering Technology Concentration

First Year

FIRST SEMESTER	S.H.	SECOND SEMESTER	S.H.
††Engineering Technology 100	3	††Engineering Technology 111	3
††Engineering Technology 132	3	††Engineering Technology 231	3
††Mathematics 175[G]	5	English 102 or 102H[G]	3
English 101 or 101H[G]	3	††Mathematics 200[G]	5
Southeastern 101	2	Music, Art, Theatre, or Dance[G]	3
	16		17

Second Year

††Engineering Technology 241	3	††Engineering Technology 213	3
††Engineering Technology 244	3	††Engineering Technology 271	3
††OSHE 111	3	††Engineering Technology 331	3
Communication 211[G]	3	English 230, 231, or 232[G]	3
Physics 191[G]	3	General Biology 151[G]	3
Physics Lab 193	1	Biology Lab 152	1
	16		16

Third Year

††Engineering Technology 202	3	††Engineering Technology 336	3
††Engineering Technology 332	3	††Engineering Technology 492	3
††Engineering Technology 334	3	History 101, 102, 201 or 202[G]	3
††Industrial Technology 407	3	Physics 192[G]	3
Chemistry 121	3	Physics Lab 194	1
		Economics 201 or 202[G]	3
	15		16

Fourth Year

††Engineering Technology 448	3	††Engineering Technology 441	3
††Engineering Technology 493	3	††Engineering Technology 443	3
††Technical Elective I[2]	3	††Engineering Technology 490	1
English 322	3	††Engineering Technology 494	3
Social Sciences[1,G]	3	††Technical Elective II[2]	3
	15		13

Total semester hours required 124

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[G]General Education Courses
††A grade of "C" or better is required in all major courses; and overall GPA of 2.0 is required to graduate.
[1]Economics, Psychology, Anthropology, Sociology, Criminal Justice or Political Science.
[2]Technical electives should be selected by students in consultation with their advisor.

Curriculum in Engineering Technology
Leading to the Degree of Bachelor of Science
Electrical Energy Engineering Technology Concentration

First Year

FIRST SEMESTER	S.H.	SECOND SEMESTER	S.H.
††Engineering Technology 100	3	††Engineering Technology 241	3
††Engineering Technology 111	3	††Mathematics 200[G]	5
††Mathematics 175[G]	5	††OSHE 111	3
English 101 or 101H[G]	3	English 102 or 102H[G]	3
Southeastern 101	2	Music, Art, Theatre, or Dance[G]	3
	16		17

Second Year

††Engineering Technology 202	3	††Engineering Technology 214	3
††Engineering Technology 212	3	††Engineering Technology 221	3
††Engineering Technology 213	3	††Industrial Technology 407	3
Physics 191[G]	3	English 230, 231, or 232[G]	3
Physics Lab 193	1	General Biology 151[G]	3
Communication 211[G]	3	Biology Lab 152	1
	16		16

Third Year

††Engineering Technology 205	3	††Engineering Technology 325	3
††Engineering Technology 225	3	††Engineering Technology 431	3
††Engineering Technology 341	3	††Engineering Technology 492	3
Chemistry 121	3	English 322	3
History 101, 102, 201 or 202[G]	3	Physics 192[G]	3
		Physics Lab 194	1
	15		16

Fourth Year

††Engineering Technology 362	3	††Engineering Technology 421	3
††Engineering Technology 365	3	††Engineering Technology 490	1
††Engineering Technology 493	3	††Engineering Technology 494	3
††Technical Elective I[2]	3	††Technical Elective II[2]	3
Economics 201 or 202[G]	3	Social Science[1,G]	3
	15		13

Total semester hours required 124

Southeastern 101 is not required of transfer or readmitted Southeastern students with 30 hours or more. Those students will replace Southeastern 101 with 2 hours of electives.

[G]General Education Courses
††A grade of "C" or better is required in all major courses; and overall GPA of 2.0 is required to graduate.
[1]Economics, Psychology, Anthropology, Sociology, Criminal Justice or Political Science.
[2]Technical electives should be selected by students in consultation with their advisor.

Curriculum in Engineering Technology
Leading to the Degree of Bachelor of Science
Mechanical Engineering Technology Concentration

First Year

FIRST SEMESTER	S.H.	SECOND SEMESTER	S.H.
††Engineering Technology 100	3	††Engineering Technology 241	3
††Engineering Technology 111	3	English 102 or 102H[G]	3
††Mathematics 175[G]	5	††Mathematics 200[G]	5
English 101 or 101H[G]	3	††OSHE 111	3
Southeastern 101	2	Economics 201 or 202[G]	3
	16		17

Second Year

††Engineering Technology 202	3	††Engineering Technology 205	3
††Engineering Technology 212	3	††Engineering Technology 213	3
English 230, 231, or 232[G]	3	††Engineering Technology 271	3
Music, Art, Theatre, or Dance[G]	3	††Engineering Technology 283	3
Physics 191[G]	3	General Biology 151[G]	3
Physics Lab 193	1	Biology Lab 152	1
	16		16

Third Year

††Engineering Technology 375	3	††Engineering Technology 371	3
††Engineering Technology 381	3	††Engineering Technology 385	3
††Industrial Technology 407	3	††Engineering Technology 492	3
Chemistry 121	3	English 322	3
History 101 or 102, or 201 or 202[G]	3	Physics 192[G]	3
		Physics Lab 194	1
	15		16

Fourth Year

††Engineering Technology 376	3	††Engineering Technology 478	3
††Engineering Technology 425	3	††Engineering Technology 490	1
††Engineering Technology 493	3	††Engineering Technology 494	3
††Technical Elective I[2]	3	Social Science[1,G]	3
Communication 211[G]	3	††Technical Elective II[2]	3
	15		13

Total semester hours required 124

Southeastern 101 is not required of transfer or readmitted Southeastern students with 30 hours or more. Those students will replace Southeastern 101 with 2 hours of electives.

[G]General Education Courses
††A grade of "C" or better is required in all major courses; an overall GPA of 2.0 is required to graduate.
[1]Economics, Psychology, Anthropology, Sociology, Criminal Justice, or Political Science.
[2]Technical electives should be selected by students in consultation with their advisor.

Curriculum in Engineering Technology
Leading to the Degree of Bachelor of Science
Mechatronics Engineering Technology Concentration

First Year

FIRST SEMESTER	S.H.	SECOND SEMESTER	S.H.
††Engineering Technology 100	3	††Engineering Technology 241	3
††Engineering Technology 111	3	English 102 or 102H[G]	3
††Mathematics 175[G]	5	††Mathematics 200[G]	5
English 101 or 101H[G]	3	††OSHE 111	3
Southeastern 101	2	Economics 201 or 202[G]	3
	16		17

Second Year

††Engineering Technology 212	3	††Engineering Technology 202	3
††Engineering Technology 213	3	††Engineering Technology 205	3
††Engineering Technology 215	3	††Engineering Technology 221	3
General Biology 151[G]	3	English 230, 231, or 232[G]	3
Biology Lab 152	1	Physics 191[G]	3
Communication 211[G]	3	Physics Lab 193	1
	16		16

Third Year

††Engineering Technology 225	3	††Engineering Technology 320	3
††Engineering Technology 322	3	††Engineering Technology 325	3
††Industrial Technology 407	3	††Engineering Technology 492	3
Chemistry 121	3	English 322	3
History 101 or 102, or 201 or 202[G]	3	Physics 192[G]	3
		Physics Lab 194	1
	15		16

Fourth Year

††Engineering Technology 421	3	††Engineering Technology 422	3
††Engineering Technology 488	3	††Engineering Technology 425	3
††Engineering Technology 493	3	††Engineering Technology 490	1
††Technical Elective[2]	3	††Engineering Technology 494	3
Music, Art, Theatre, or Dance[G]	3	Social Sciences[1,G]	3
	15		13

Total semester hours required 124

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[G]General Education Courses
††A grade of "C" or better is required in all major courses; an overall GPA of 2.0 is required to graduate.
[1]Economics, Psychology, Anthropology, Sociology, Criminal Justice, or Political Science.
[2]Technical electives should be selected by students in consultation with their advisor.