

## **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.

### **Engineering Technology Concentrations**

Students must elect to study one of the Engineering Technology Concentrations: Computer Engineering Technology, Construction Engineering Technology, Energy Engineering Technology, Industrial Engineering Technology, or Mechanical 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.

### **Major**

There are 27 credit hours of required Engineering Technology 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 for a minimum of 66 hours of 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 202 .....	3
Math 165 <sup>1</sup> .....	3	English 102 .....	3
Chemistry 121 .....	3	Math 200 .....	5
Chemistry 123 .....	1	Physics 191 .....	3
English 101 .....	3	Physics 193 .....	1
Southeastern 101 .....	0-3		
	-----		-----
	13 -16		15

**SECOND YEAR**

†Engineering Technology 205 .....	3	†Engineering Technology 221 .....	3
†Engineering Technology 212 .....	3	†Engineering Technology 226 .....	3
†Engineering Technology 213 .....	3	Computer Science 290 .....	3
†Engineering Technology 225 .....	3	Computer Science 297 .....	3
Physics 192 .....	3	General Biology 151 .....	3
Physics 194 .....	1	Biology Lab 152.....	1
	-----		-----
	16		16

**THIRD YEAR**

†Engineering Technology 320.....	3	†Engineering Technology 241 .....	3
†Engineering Technology 390 .....	3	†Engineering Technology 305 .....	3
†Industrial Technology 111 .....	3	†Engineering Technology 410 .....	3
English 322 .....	3	†Occupational Safety 111 .....	3
Music, Art, Theater, or Dance.....	3	History 101, 102, 201, or 202.....	3
Social Sciences <sup>2</sup> .....	3	Communication 211 .....	3
	-----		-----
	18		18

**FOURTH YEAR**

†Engineering Technology 425 .....	3	†Engineering Technology 494 .....	3
†Engineering Technology 490 .....	1	†Technical Elective II <sup>3</sup> .....	3
†Engineering Technology 492 .....	3	†Technical Elective III <sup>3</sup> .....	3
†Engineering Technology 493 .....	2	English 230, 231, or 232 .....	3
†Technical Elective I <sup>3</sup> .....	3	Social Sciences <sup>2</sup> .....	3
†Industrial Technology 407 .....	3		
	-----		-----
	15		15

Total Semester Hours Required.....126-129

Southeastern 101 is not required of transfer or readmitted Southeastern students with 30 hours or more.

<sup>1</sup> Math 161 may be used as an elective for those students whose Math ACT score is insufficient for direct entry into Math 165. Students with an ACT Math score of 20 or lower will take Math 155 (five credit hours) in place of Math 161, which will increase two credit hours the total number of hours required for the degree.

<sup>2</sup> Economics, Psychology, Anthropology, Sociology or Political Science.

<sup>3</sup> Technical electives should be selected by students in consultation with their advisor.

†A grade of “C” or better is required in all major courses; an overall GPA of 2.0 is required to graduate.

**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 132 .....	3
†Engineering Technology 202 .....	3	English 102 .....	3
†Industrial Technology 111 .....	3	Mathematics 200 .....	5
Math 165 <sup>1</sup> .....	3	Physics 191 .....	3
English 101 .....	3	Physics 193 .....	1
Southeastern 101 .....	0-3	Social Science <sup>2</sup> .....	3
	15-18		18

**SECOND YEAR**

†Engineering Technology 231 .....	3	†Engineering Technology 213 .....	3
†Engineering Technology 241 .....	3	†Engineering Technology 232 .....	3
General Biology 151 .....	3	†Engineering Technology 271 .....	3
Biology Lab 152 .....	1	Communication 211 .....	3
English 230, 231 or 232 .....	3	Physics 192 .....	3
Chemistry 121 .....	3	Physics 194 .....	1
Chemistry 123 .....	1		16
	17		

**THIRD YEAR**

†Engineering Technology 234 .....	3	†Engineering Technology 305 .....	3
†Engineering Technology 244 .....	3	†Engineering Technology 332 .....	3
†Engineering Technology 331 .....	3	†Engineering Technology 336 .....	3
†Occupational Safety 111 .....	3	†Engineering Technology 492 .....	3
English 322 .....	3	History 101, 102, 201or 202 .....	3
	15		15

**FOURTH YEAR**

†Engineering Technology 390 .....	3	†Engineering Technology 443 .....	3
†Engineering Technology 441 .....	3	†Engineering Technology 494 .....	3
†Engineering Technology 490 .....	1	†Technical Elective II <sup>3</sup> .....	3
†Engineering Technology 493 .....	2	Music, Art, Theater, or Dance .....	3
†Technical Elective I <sup>3</sup> .....	3	Social Science <sup>2</sup> .....	3
†Industrial Technology 407 .....	3		15
	15		15

Total Semester Hours Required.....126-129

Southeastern 101 is not required of transfer or readmitted Southeastern students with 30 hours or more.

<sup>1</sup> Math 161 may be used as an elective for those students whose Math ACT score is insufficient for direct entry into Math 165. Students with an ACT Math score of 20 or lower will take Math 155 (five credit hours) in place of Math 161, which will increase two credit hours the total number of hours required for the degree.

<sup>2</sup> Economics, Psychology, Anthropology, Sociology or Political Science.

<sup>3</sup> Technical electives should be selected by students in consultation with their advisor.

†A grade of "C" or better is required in all major courses; an overall GPA of 2.0 is required to graduate.

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

**FIRST YEAR**

FIRST SEMESTER	S.H.	SECOND SEMESTER	S.H.
†Engineering Technology 100 .....	3	†Engineering Technology 212 .....	3
Math 165 <sup>1</sup> .....	3	English 102 .....	3
English 101 .....	3	Math 200 .....	5
Chemistry 121 .....	3	Physics 191 .....	3
Chemistry 123 .....	1	Physics 193 .....	1
Southeastern 101 .....	0-3		
	—		—
	13 -16		15

**SECOND YEAR**

†Engineering Technology 213 .....	3	†Engineering Technology 202 .....	3
†Engineering Technology 221 .....	3	†Engineering Technology 205 .....	3
†Engineering Technology 225 .....	3	†Engineering Technology 226 .....	3
†Engineering Technology 375 .....	3	†Engineering Technology 361 .....	3
Physics 192 .....	3	General Biology 151 .....	3
Physics 194 .....	1	Biology Lab 152.....	1
	—		—
	16		16

**THIRD YEAR**

†Engineering Technology 365 .....	3	†Engineering Technology 241 .....	3
†Engineering Technology 390 .....	3	†Engineering Technology 305 .....	3
†Industrial Technology 111 .....	3	†Engineering Technology 363 .....	3
English 322 .....	3	†Occupational Safety 111 .....	3
Social Sciences <sup>2</sup> .....	3	History 101, 102, 201, or 202.....	3
Music, Art, Theater, or Dance.....	3	Communication 211 .....	3
	—		—
	18		18

**FOURTH YEAR**

†Engineering Technology 433 .....	3	†Engineering Technology 431 .....	3
†Engineering Technology 490 .....	1	†Engineering Technology 494 .....	3
†Engineering Technology 492 .....	3	†Technical Elective II <sup>3</sup> .....	3
†Engineering Technology 493 .....	2	English 230, 231, or 232 .....	3
†Industrial Technology 407 .....	3	Social Sciences <sup>2</sup> .....	3
†Technical Elective I <sup>3</sup> .....	3		
	—		—
	15		15

Total Semester Hours Required.....126-129

Southeastern 101 is not required of transfer or readmitted Southeastern students with 30 hours or more.

<sup>1</sup> Math 161 may be used as an elective for those students whose Math ACT score is insufficient for direct entry into Math 165. Students with an ACT Math score of 20 or lower will take Math 155 (five credit hours) in place of Math 161, which will increase two credit hours the total number of hours required for the degree.

<sup>2</sup> Economics, Psychology, Anthropology, Sociology or Political Science.

<sup>3</sup> Technical electives should be selected by students in consultation with their advisor.

†A grade of “C” or better is required in all major courses; an overall GPA of 2.0 is required to graduate.

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

**FIRST YEAR**

FIRST SEMESTER	S.H.	SECOND SEMESTER	S.H.
†Engineering Technology 100.....	3	†Engineering Technology 150.....	3
†Engineering Technology 202.....	3	English 102.....	3
English 101.....	3	Math 200.....	5
†Industrial Technology 111.....	3	Physics 191.....	3
Math 165 <sup>1</sup> .....	3	Physics 193.....	1
Southeastern 101.....	0-3		
	—————		—————
	15-18		15

**SECOND YEAR**

†Engineering Technology 241.....	3	†Engineering Technology 213.....	3
†Occupational Safety 111.....	3	†Engineering Technology 283.....	3
Mathematics 241.....	3	History 101, 102, 201, or 202.....	3
English 230, 231, or 232.....	3	English 322.....	3
Chemistry 121.....	3	Physics 192.....	3
Chemistry 123.....	1	Physics 194.....	1
	—————		—————
	16		16

**THIRD YEAR**

†Engineering Technology 357.....	3	†Engineering Technology 305.....	3
†Engineering Technology 390.....	3	†Engineering Technology 353.....	3
†Industrial Technology 407.....	3	†Industrial Technology 308.....	3
Communication 211.....	3	†Industrial Technology 405.....	3
General Biology 151.....	3	Social Science <sup>2</sup> .....	3
Biology Lab 152.....	1		
	—————		—————
	16		15

**FOURTH YEAR**

†Engineering Technology 492.....	3	†Engineering Technology 463.....	3
†Engineering Technology 493.....	2	†Engineering Technology 465.....	3
†Industrial Technology 402.....	3	†Engineering Technology 490.....	1
†Industrial Technology 406.....	3	†Engineering Technology 494.....	3
Social Science <sup>2</sup> .....	3	Music, Art, Theater, or Dance.....	3
†Technical Elective I <sup>3</sup> .....	3	†Technical Elective II <sup>3</sup> .....	3
	—————		—————
	17		16

Total Semester Hours Required..... 126-129

Southeastern 101 is not required of transfer or readmitted Southeastern students with 30 hours or more.

<sup>1</sup> Math 161 may be used as an elective for those students whose Math ACT score is insufficient for direct entry into Math 165. Students with an ACT Math score of 20 or lower will take Math 155 (five credit hours) in place of Math 161, which will increase two credit hours the total number of hours required for the degree.

<sup>2</sup> Economics, Psychology, Anthropology, Sociology or Political Science.

<sup>3</sup> Technical electives should be selected by students in consultation with their advisor.

†A grade of “C” or better is required in all major courses; an overall GPA of 2.0 is required to graduate.

**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 202 .....	3
English 101 .....	3	English 102 .....	3
Math 165 <sup>1</sup> .....	3	Math 200 .....	5
Chemistry 121 .....	3	Physics 191 .....	3
Chemistry 123 .....	1	Physics 193 .....	1
Southeastern 101 .....	0-3		
	-----		-----
	13 -16		15

**SECOND YEAR**

†Engineering Technology 212 .....	3	†Engineering Technology 205 .....	3
†Engineering Technology 241 .....	3	†Engineering Technology 271 .....	3
†Industrial Technology 111 .....	3	†Engineering Technology 283 .....	3
General Biology 151 .....	3	English 322 .....	3
Biology Lab 152.....	1	English 230, 231 or 232 .....	3
Physics 192 .....	3		
Physics 194 .....	1		
	-----		-----
	17		15

**THIRD YEAR**

†Engineering Technology 213 .....	3	†Engineering Technology 305 .....	3
†Engineering Technology 371 .....	3	†Engineering Technology 376 .....	3
†Engineering Technology 375 .....	3	†Engineering Technology 385 .....	3
†Engineering Technology 381 .....	3	†Engineering Technology 386 .....	3
†Engineering Technology 390 .....	3	†Industrial Technology 407 .....	3
		Communication 211 .....	3
	-----		-----
	15		18

**FOURTH YEAR**

†Engineering Technology 478 .....	3	†Engineering Technology 490 .....	1
†Engineering Technology 492 .....	3	†Engineering Technology 494 .....	3
†Engineering Technology 493 .....	2	History 101, 102, 201 or 202.....	3
†Occupational Safety 111 .....	3	Music, Art, Theater, or Dance .....	3
Social Science <sup>2</sup> .....	3	Social Science <sup>2</sup> .....	3
†Technical Elective I <sup>3</sup> .....	3	†Technical Elective II <sup>3</sup> .....	3
	-----		-----
	17		16

Total Semester Hours Required..... 126-129

Southeastern 101 is not required of transfer or readmitted Southeastern students with 30 hours or more.

<sup>1</sup> Math 161 may be used as an elective for those students whose Math ACT score is insufficient for direct entry into Math 165. Students with an ACT Math score of 20 or lower will take Math 155 (five credit hours) in place of Math 161, which will increase two credit hours the total number of hours required for the degree.

<sup>2</sup> Economics, Psychology, Anthropology, Sociology or Political Science.

<sup>3</sup> Technical electives should be selected by students in consultation with their advisor.

†A grade of "C" or better is required in all major courses; an overall GPA of 2.0 is required to graduate.