

# TECHNOLOGY & ENGINEERING EDUCATION, B.S.ED. - ENGINEERING DESIGN EDUCATION CONCENTRATION

TECE majors with the Engineering Design Education concentration meet all of the same requirements of the Technology & Engineering Education major, including broad preparation in all technology & engineering content areas. However, this concentration would ensure that students are being challenged to take some courses that best fit an engineering design-focused curriculum, including specific math and science courses and a narrower set of engineering-focused technical electives.

## Major in Technology and Engineering Ed - BSE

Code	Title	Hours
<b>TECHNOLOGY LITERACY CORE</b>		
AENG 110	Communication and Information Systems	3
AENG 120	Energy Systems	3
AENG 130	Production Materials & Processes	3
AENG 140	Bio-related Technologies	3
<b>TECHNICAL CORE</b>		
AENG 241	Drafting Communications	3
Print Media Systems or Web Publishing Interactive Media - Choose 1 of the following:		3
AENG 251	Print Media Systems	
AENG 252	Web Publishing Systems	
AENG 261	Electronic Systems	3
Processing Nonmetallic or Metallic Materials - Choose 1 of the following:		3
AENG 271	Processing Nonmetallic Materials	
AENG 281	Processing Metallic Materials	
AENG 322	Transportation	3
AENG 327	Engineering Structures	3
AENG 344	Product Design	3
AENG 346	Architectural Drawing	3
AENG 435	Manufacturing Enterprise	3
<b>TECHNICAL LAB COURSES FOR ENGINEERING DESIGN</b>		
Only one OSEH course may be counted as a laboratory elective.		
Laboratory Electives for Engineering Design - Choose 3 of the following:		9-10
AENG 262	Semiconductor Electronics	
AENG 325	Power Conversion and Control	
AENG 326	Fluid Power	
AENG 332	Construction Technology 2	
AENG 342	Computer-Aided Engineering Drawing	
AENG 345	Statics/Strength of Materials	
AENG 347	Engineering Visualization	
AENG 357	Packaging Specialty Printing	
AENG 364	Digital Electronics	
AENG 382	Automated Manufacturing	
AENG 446	Advanced Applications in Drafting and Design	

AENG 448	Machine Tool Design	
AENG 467	Mobile Robotics	
AENG 498	Independent Study	
OSEH 320	Safety Engineering Principles	
OSEH 323	Human Factors in OSEH	
<b>REQUIRED EDTE COURSES - count in major GPA</b>		
EDTE 291	Foundations of Technology & Engineering Ed	3
EDTE 391	Curr & Inst in Tech & Eng Ed	3
EDTE 491	Seminar in Techn & Engring Ed	1
EDTE 496	Innovatn/Design Methodologies	2
<b>Total Hours</b>		<b>57-58</b>

## Professional Education

Code	Title	Hours
<b>EDUCATIONAL FOUNDATIONS</b>		
EDFN 211	Foundations Modern Education	3
EDFN 241	Psychological Foundations of Teaching	3
<b>REQUIRED EDUCATION COURSES</b>		
Foundations of Technology Engineering Education		3
EDTE 291	Foundations of Technology & Engineering Ed	
Innovation and Design Methodologies		2
EDTE 496	Innovatn/Design Methodologies	
<b>ACCOMMODATIONS AND ADAPTATIONS</b>		
EDSE 340	Content Area Literacy for Diverse Classrooms	3
SPED 346	Secondary Students w/Disabilities in Inclusive Settings	3
Curr Instruction in Technology Engineering Education		3
EDTE 391	Curr & Inst in Tech & Eng Ed	
<b>STUDENT TEACHING</b>		
EDSE 471	Student Teaching Seminar	3
Seminar in Technology Engineering Education		1
EDTE 491	Seminar in Techn & Engring Ed	
Student Teaching		9
EDTE 461	Edte Stu Teaching	
<b>Total Hours</b>		<b>33</b>

## Req Related for Technology and Engineering Ed

Code	Title	Hours
<b>MATHEMATICS</b>		<b>7</b>
MATH 130	Elements of Statistics 1	
MATH 151	Calculus for Management	
<b>SCIENCE</b>		<b>8</b>
PHYS 131	Physics 1 with Algebra	
PHYS 132	Physics 2 with Algebra	
Literature Requirement - Choose 1 class from:		
Any ENGL 230-237 course(s)		
ENGL 241H	H:Explorations in World Lit	
ENGL 242	Reading Our World:	
ENGL 292	Science Fiction	
ENGL 333	African-American Literature 1	
ENGL 334	African American Literature 2	
ENGL 338	Folklore and Literature	

ENGL 401	Old Eng Lang and Literature	
<b>Total Hours</b>		<b>15</b>

## Advanced Professional Studies, BSE

Code	Title	Hours
------	-------	-------

\*Clearances are valid for one year from the date that appears in the header of this degree audit in the field 'Clearance Date.' Clearances cannot expire in the middle of a semester.

### APS REQUIREMENTS

English Composition - Choose 1 of the following:		3
ENGL 110	English Composition	
ENGL 110H	Hnrs:English Composition	
English Literature - Choose 1 of the following:		3
ENGL 230	Introduction to Literature	
ENGL 231	World Literature 1	
ENGL 232	World Literature 2	
ENGL 233	Early British Literature	
ENGL 234	Later British Literature	
ENGL 235	American Literary Tradition I	
ENGL 236	American Literary Tradition II	
ENGL 241H	H:Explorations in World Lit	
ENGL 242	Reading Our World:	
ENGL 292	Science Fiction	
ENGL 333	African-American Literature 1	
ENGL 333H	Hnrs:African American Lit 1	
ENGL 334	African American Literature 2	
ENGL 334H	Hnrs:African American Lit 2	
ENGL 336	New Dimensions to World Lit	
ENGL 338	Folklore and Literature	
ENGL 401	Old Eng Lang and Literature	
ENGL 402	Middle Eng Lang and Literature	

### Mathematics

Two Mathematics courses are required for BSE students. You have taken 0 course(s). It is preferable to take two courses designated as G2. Click here to search for MATH courses on the current web schedule. BIOL 375 will fulfill one Mathematics course for BSE BIOL students.

EDFN 211	Foundations Modern Education	6
& EDFN 241	and Psychological Foundations of Teaching	

48 earned (transcript) credit hours are required

### APS registration status

You ARE NOT eligible to register for courses requiring APS status.

### ACT 126 - Educator Ethics Training

You must submit your Educator Ethics Training.

### Pre-Service Testing Required

Pre-Service Testing Status is indicated by one of the following: 1.) PSTA - Pre-Service Testing Accomplished: Verified passing pre-service test scores meet the requirement. 2.) PSTI - Pre-Service Testing Incomplete: Non-passing pre-service test scores were submitted prior to the August 1, 2015 policy change. Passing scores must still be achieved in order to meet the PA certification requirements. 3.) PSTU - Pre-Service Testing Unverified: Unofficial copies of pre-service test scores were submitted. Official scores must be sent from the testing company in order to meet PA certification requirements. 4.) PSTX - Pre-Service Testing Waived: Per PDE - ACT 136, the Pre-Service Testing Requirement has been waived.

Pre-Service Testing Status is indicated by one of the following: 1.) PSTA - Pre-Service Testing Accomplished: Verified passing pre-service test scores meet the requirement. 2.) PSTI - Pre-Service Testing Incomplete: Non-passing pre-service test scores were submitted prior to the August 1, 2015 policy change. Passing scores must still be achieved in order to meet the PA certification requirements. 3.) PSTU - Pre-Service Testing Unverified: Unofficial copies of pre-service test scores were submitted. Official scores must be sent from the testing company in order to meet PA certification requirements. 4.) PSTX - Pre-Service Testing Waived: Per PDE - ACT 136, the Pre-Service Testing Requirement has been waived.

### Your GPA is below 3.0 - please see an advisor

If you are given the 2.8 GPA Exception for graduation and you graduate with a GPA lower than 3.0, you must have higher certification test scores in order to meet PA state certification requirements.

### No dispositions-related holds

If the requirement above is checked as complete, then there are currently no dispositions-related holds on your APS Status. Registration for APS courses is permitted when all APS requirements have been met. If it is incomplete, you have a hold and APS registration will not be allowed.

### Full Admission to APS

When all requirements are met, you must submit application for admission to APS status. Click here for the application.

<b>Total Hours</b>	<b>12</b>
--------------------	-----------