APPLIED TECHNOLOGY | BACHELOR OF SCIENCE IN TECHNOLOGY STUDIES (CONSTRUCTION MANAGEMENT)

Program Summary

Code	Title	Hours
General Education Courses		34
Technology Studies Core Courses		32
Construction Management Core Courses		24
Management Requirements		9
ATMAE Required Courses		9
Directed Electives		9
Open Electives [1]		3
Total Hours		**120**

[1] Open electives are the credit hours required to reach a minimum of 120 total hours and 45 upper division hours. The number listed assumes all courses are completed at FHSU as listed. This number may vary if students transfer courses, or have individual substitutions allowed. Students should speak with their advisor if either situation applies to determine if the number will vary, and to ensure they enroll in a minimum of 45 upper division hours.
Students entering within 1 year of high school graduation will take UNIV 101 Freshman Seminar and may apply that hour in the open elective category.

Program Requirements

General Education

All undergraduate degrees require completion of the Kansas Systemwide General Education (https://catalog.fhsu.edu/general-education/).

Courses identified with GE on this page may satisfy a general education requirement in addition to the identified degree requirement. Students who apply a degree requirement to satisfy a general education requirement will typically add an equal number of hours to the university elective category. This flexibility may allow you to complete a minor or certificate within the 120 hour degree. Transfer students are especially encouraged to select these courses in completing General Education requirements to maximize the likelihood of completing the degree with 120 credit hours.

Code	Title	Hours
General Education		**34-35**

Effective in Fall 2025 the math pathway course (https://catalog.fhsu.edu/general-education/gateway-courses/) identified below is required for this degree.

The General Education Math Pathways course identified for this major is **MATH 110 College Algebra** . All students pursuing this degree program will be required to complete this course or the corequisite support course.

Students who place into a higher level math course may be able to satisfy this requirement; consult with your Academic Advisor for additional information.

Placement measures for **MATH 110 College Algebra** include:

- Math ACT: 22 or higher OR
- Math SAT: 540 or higher OR
- ALEKS PPL: 46 or higher OR
- Accuplacer QAS: 263 or higher OR
- Official GED score (2014 to Present": greater than or equal to 165 in Mathematical Reasoning OR
- HS GPA and Course Grade: 3.25 cumulative GPA (unweighted) and B- or higher in Second semester Algebra 2 or Integrated Math 3 OR
- Institutional Measure

Students who do not meet any of the placement measures listed above will need to register for the corequisite support course: MATH 105 College Algebra with Review. Credit for the corequisite support course will satisfy any requirement for the pathway course listed above.

Code	Title	Hours
Technology Studies Core Requirements		
TECS 120	Power, Energy, and Transportation [1]	3
TECS 130	STEM in Technology Systems [1]	3
TECS 200	Engineering Graphics [1]	3
TECS 312	Graphic Communication Techniques [1]	3
TECS 318	Introduction to ComputerAided Drafting [1]	3
TECS 480	Industrial Management [2]	3
TECS 490	Occupational Safety, Health, and Liability [3]	2
TECS 495	Training and Instructional Systems [4]	3
or TECS 460	Teaching Technology & Engineering Education	
Select at least nine credit hours from the following:		9
TECS 406	Problems in Technology Studies	
TECS 499	Internship [5]	
TECS 606	Technology Issues	
Construction Management Core Courses		
Select 24 credit hours from the following:		24
TECS 180	Materials, Processes, and Production	
TECS 380	Construction Material and Testing [2]	
TECS 382	Construction Estimating and Scheduling	
TECS 385	Construction Planning and Design	
TECS 415	Construction Graphics [4]	
TECS 475	Mechanical and Electrical Systems [4]	
TECS 484	Site Preparation and Foundation	
TECS 485	Building Construction [2]	
Management Requirements		
GBUS 204	Business Law I	3
MGT 301	Management Principles [1]	3
MGT 411	Applied Management Skills	3
ATMAE Required Courses [6]		
MATH 101	Contemporary Mathematics GE	
or MATH 100	Contemporary Mathematics with Review	
or MATH 110	College Algebra	
or MATH 105	College Algebra with Review	

MATH 250	Elements of Statistics [GE]	
or MATH 245	Elements of Statistics with Review	
or MATH 234	Analytic Geometry and Calculus I	
GSCI 100	Exploring Earth [GE]	
or GSCI 240	Geographic Information Systems (GIS) One	
GSCI 102	Exploring Earth Laboratory [GE]	
or PHYS 103	Physical Science Laboratory	
PHYS 102	Physical Science [GE]	
TECS 391	Technology in Society [GE]	
Directed Electives		
Select nine credit hours from TECS electives		9

1 Classes offered **both** Fall and Spring.
2 Class offered in the Spring.
3 Class offered Intersession (between Fall and Spring semesters) / Spring.
4 Class offered in the Fall.
5 TECS 499 Internship—Internship Students: plan ahead for internship. Start gathering details the semester **before** you want to do internship. 9 credit hours of internship can be broken up into segments (before your senior year). Get an internship manual from the Applied Tech office (AT 121 or dat@fhsu.edu). Make appointment with Mr. Stewart: Department Chair (AT 121) before you are ready to enroll. Note: **all** students (grade level and major) are encouraged to attend & participate in the Career Fair held each fall. This will give you personal contacts with many companies to set up internship, summer work, or full-time employment upon graduation. **All** Technology Studies students plan to attend the **Career Fair**!
6 ATMAE courses cover areas required for all students receiving degrees from an accredited program. All courses maybe used to satisfy a general education requirement at FHSU, however only one math class may satisfy a general education requirement.

Degree Requirements

Code	Title	Hours
All bachelor degrees require:		
GPA of 2.0 on FHSU courses & 2.0 on all coursework (Higher program requirements prevail over the 2.0 when set)		
A minimum of 30 hours earned from FHSU with a grade of D, C, B, or A		
Successful completion of an upper division Writing and Information Literacy course (Most majors contain a course designated)		
A minimum of 45 hours of recognized upper division credit		
A minimum of 120 hours of recognized college credit		

Degree Map

Course	Title	Hours
Freshman		
Fall		
UNIV 101	Freshman Seminar	1
ENG 101	English Composition I (SGE010 - English Discipline Area)	3
LDRS 200	Discovering Leadership (SGE050 - Social and Behavioral Sciences Discipline Area)	3
TECS 130	STEM in Technology Systems	3
TECS 318	Introduction to ComputerAided Drafting	3
TECS 180	Materials, Processes, and Production	3
	Hours	**16**
Spring		
SGE070 - Institutionally Designated Area: Critical Thinking		3
SGE060 - Arts and Humanities Discipline Area		3
ENG 102	English Composition II (SGE010 - English Discipline Area)	3
TECS 120	Power, Energy, and Transportation	3
TECS 200	Engineering Graphics	3
	Hours	**15**
Sophomore		
Fall		
MATH 110 or MATH 105	College Algebra (Math Pathway Gateway Course: SGE030 - Math and Statistics Discipline Area) or College Algebra with Review	3
COMM 100	Fundamentals of Oral Communication (SGE020 - Communication Discipline Area)	3
TECS 312	Graphic Communication Techniques	3
TECS 484	Site Preparation and Foundation	3
GBUS 204	Business Law I	3
	Hours	**15**
Spring		
SGE060 - Arts and Humanities Discipline Area		3
PHYS 102 & PHYS 103	Physical Science and Physical Science Laboratory (SGE040 - Natural and Physical Science Discipline Area) [1, GE]	4
TECS 415	Construction Graphics	3
TECS 485	Building Construction	3
Directed Electives		3
	Hours	**16**
Junior		
Fall		
TECS 391	Technology in Society	3
TECS 382	Construction Estimating and Scheduling	3
TECS 495	Training and Instructional Systems	3
MATH 250 or MATH 245	Elements of Statistics or Elements of Statistics with Review	3
Directed Electives		3
	Hours	**15**
Spring		
TECS 380	Construction Material and Testing	3
TECS 385	Construction Planning and Design	3
TECS 480	Industrial Management	3
GSCI 240	Geographic Information Systems (GIS) One (SGE070 - Institutionally Designated Area: Personal and Professional Development)	3
Directed Choices		3
	Hours	**15**
Senior		
Fall		
TECS 490	Occupational Safety, Health, and Liability	2
TECS 475	Mechanical and Electrical Systems	3
MGT 301	Management Principles	3
Open Electives		5
SGE050 - Social and Behavioral Sciences Discipline Area		3
	Hours	**16**
Spring		
TECS 499	Internship	9
MGT 411	Applied Management Skills	3
	Hours	**12**
	Total Hours	**120**

Academic Degree Maps are term-by-term sample course plans that specify milestones, courses, and special requirements that are necessary for facilitating on-time completion. Degree Maps are ***examples*** and are not prescriptive. Individualized choices such as concentration options, transfer credits, optional minors, advisory programs (certificates), etc. can alter the recommended coursework. Course offerings are subject to change. Students should consult with their academic advisors for additional guidance on course planning.

To determine courses to take in the directed choices (often listed as Program Elective Course) and directed elective course blocks see the overview tab for courses. Open electives indicate the student is free to choose courses from any subject, but students should discuss with their advisor how many of these hours must be upper division. To locate approved courses in General Education areas (Undergraduate Programs) see the general education section (https://catalog.fhsu.edu/general-education/) of the catalog.

The undergraduate course maps typically advise the most efficient route for students to complete the general education requirements. Courses that are required in the major may be listed as fulfilling relevant general education requirements. This will result in more open elective course hours in some maps than is listed on the degree overview page.