PROGRESSION FLOWCHART
5-Year Integrated Bachelors-Master of Science in Architectural Engineering (MSaE)
Department of Civil & Architectural Engineering (CAE)
Fall 2020

This chart provides a visual, curricular flow. Students are responsible for confirming all pre-requisite and co-requisite courses through LTU’s Banner system to ensure they meet all degree requirements.

Semester 1 Fall
- COM 1103 College Composition

Semester 2 Spring
- EAE 1091 Intro to Arch Eng.

Semester 3 Fall
- CHM 1213 University Chem 1

Semester 4 Spring
- ECE 1001 Fund of Eng. Design Proj’s

Semester 5 Fall
- PHY 2413 University Physics 1

Semester 6 Spring
- EGE 2103 Tech & Prof Communication

Semester 7 Fall
- ECE 3011 Mechanics Materials Lab

Semester 8 Spring
- ECE 1113 Electrical Sys II Power & Lab

Semester 9 Fall
- CHM 1221 University Chem 1 Lab

Semester 10 Spring
- EGE 1013 Fund of Eng. Design Proj’s

Year 1:
- EAE 1091 Intro to Arch Eng.
- ECE 1001 Fund of Eng. Design Proj’s
- COM 2103 Tech & Prof Communication
- PHY 2423 University Physics 2
- EGE 2023 Development of American Exp
- ECE 3011 Mechanics Materials Lab
- EAE 3054 AEIDS 1
- EMC 3113 Electrical Sys 1 Lighting & Lab
- ECE 3723 Theory of Structures
- EAE 4022 Capstone 1

Year 2:
- CHM 2414 Calculus 3
- MCS 1414 Calculus 1
- MEC 1414 Calculus 2
- ECE 2023 Statics
- ECE 3033 * Eng. Numerical Methods
- EAE 3024 AEIDS 2
- ECE 4033 AEIDS 3
- EME 6233 Mech Sys II HVAC Application
- EAE 4022 Capstone 2

Year 3:
- FLN 1093 University/Engineering Core
- ENG 1093 University/Engineering Core
- ECE 3011 Mechanics Materials Lab
- ECE 3113 Electrical Sys 1 Lighting & Lab
- EAE 3033 * Eng. Numerical Methods
- ECE 4033 AEIDS 3
- EAE 4022 Capstone 2
- ECE 4033 AEIDS 3

Year 4:
- FLN 1093 University/Engineering Core
- ENG 1093 University/Engineering Core
- ECE 3011 Mechanics Materials Lab
- ECE 3113 Electrical Sys 1 Lighting & Lab
- EAE 3033 * Eng. Numerical Methods
- ECE 4033 AEIDS 3
- EAE 4022 Capstone 2
- ECE 4033 AEIDS 3

Year 5:
- FLN 1093 University/Engineering Core
- ENG 1093 University/Engineering Core
- ECE 3011 Mechanics Materials Lab
- ECE 3113 Electrical Sys 1 Lighting & Lab
- EAE 3033 * Eng. Numerical Methods
- ECE 4033 AEIDS 3
- EAE 4022 Capstone 2
- ECE 4033 AEIDS 3

Total Degree Credit Hours = 164

Key:
+ Graduate Standing
++ Prereq or Placement Test Required
## Construction Courses
### University/Engineering Core
### Senior standing
### Completion of three of the following:
- LTL121, LTL122, SSSC431 & SSSC424

Electrical Courses: Mechanical Courses: Structural Courses: Construction Courses: University/Engineering Mix

Architecture Courses: Eng. Foundation Courses

Graduate Concentration Requirements:

Structural (Pick 4):
- ECE 5413 Shallow and Deep Found.
- ECE 5703 Design of Timber Struct.
- ECE 5713 Prestressed Concrete Des.
- ECE 5743 Structural Mastic Design
- ECE 5753 Advanced Concrete Design
- ECE 5773 Advanced Steel Design
- ECE 6793 Finite Element Analysis
- ECE 6743 Structural Dynamics

Mechanical (Pick 4, *Req):
- EAE 5653 Building Optimization
- ECE 5283 Conceptual Estimating
- EME 5253 Engineering Analysis 1
- EME 5314 Electric Machines and Drives
- EEE 5314 Power Electronics
- EEE 5334 Digital Control Systems

Electrical (Pick 4: *Req)
- EAE 5653 Building Optimization
- ECE 5283 Conceptual Estimating
- EME 5253 Engineering Analysis 1
- EEE 5314 Electric Machines and Drives
- EEE 5334 Digital Control Systems

Courses not listed may replace EAE 6013 and one graduate concentration elective with a 6-credit Thesis Option.

ECE 5113 Sustainable Constr. Pract.
- ECE 5213 Design Build
- ECE 5233 Advanced Const. Tech.
- ECE 5263 Construction Safety
- ECE 5273 Construction Law
- ECE 5283 Conceptual Estimating
- ECE 5613 Architectural Acoustics
- ECE 5613 Advanced Lighting Daylighting Sys
- ECE 5613 + Bldg. Int. Renewable Energy Sys
- ECE 6563 Fund. Of Bldg. Design
- ECE 6563 + Advanced Electrical Sys
- ECE 6643 Smart Grid Communication
- ECE 6723 HVAC, FP
- ECE 6743 HVAC, FP
- ECE 6743 HVAC, FP
- ECE 6743 HVAC, FP

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