PROGRESSION FLOWCHART
5-Year Integrated Bachelors-Master of Science in Architectural Engineering (MSArE)
Department of Civil & Architectural Engineering (CAE)
Effective for Spring 2021

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.

Key:
+ = Graduate Standing
++ = Prereq or Placement Test Required
* = Junior standing
*** = Senior standing
### = Still under development
# = Completion of three of the following: LTL1213, LTL2223, SSC2413 & SSC2423
Crossover
1 = Course 2 may be taken concurrently with 1 (or Course 1 may be taken without 2)
2 = Courses 1 & 2 must be taken concurrently

Electrical Courses
Mechanical Courses
Structural Courses
Construction Courrse
University/Engineering Core
Arch. Eng. General
Mechanical/Electrical Mix
Architecture Courses
Eng. Foundation Courses

Structural Concentration
Mechanical, Electrical, Construction Concentration

Graduation Concentration Requirements:
Electrical (Pick 4, *Req):
*ECE 5703 Design of Timber Structures
ECE 5413 Shallow and Deep Foundations
ECE 5713 Prestressed Concrete Design
ECE 5753 Structural Masonry Design
ECE 5753 Advanced Concrete Design
ECE 5773 Advanced Steel Design
ECE 6733 Finite Element Analysis
ECE 6743 Structural Dynamics

Construction (Pick 4, *Req):
*ECE 5823 Engineering Economic Analysis
ECE 5233 Techniques of Prof. Project
ECE 5233 Advanced Const. Tech.
ECE 5263 Construction Safety
ECE 5723 Construction Law
ECE 6213 Issues in Eng. Mgmt

Mechanical (Pick 4, *Req):
*ECE 5653 Building Optimization
EME 5133 Sustainable Design
ECE 5133 Applied Thermodynamics
ECE 5133 Solar and Wind Energy Systems
EME 5233 Engineering Analysis 1
ECE 5263 Energy Resources and Technology
ECE 5353 Transport Phenomena 1
ECE 6223 Conduction Heat Transfer
ECE 6233 Convection Heat Transfer
EME 6543 Fluid Dynamics

TOTAL DEGREE CREDIT HOURS = 164

* Under special permission of the department, students may replace EAE 6013 and one graduate concentration elective with a 6-credit Thesis Option.

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