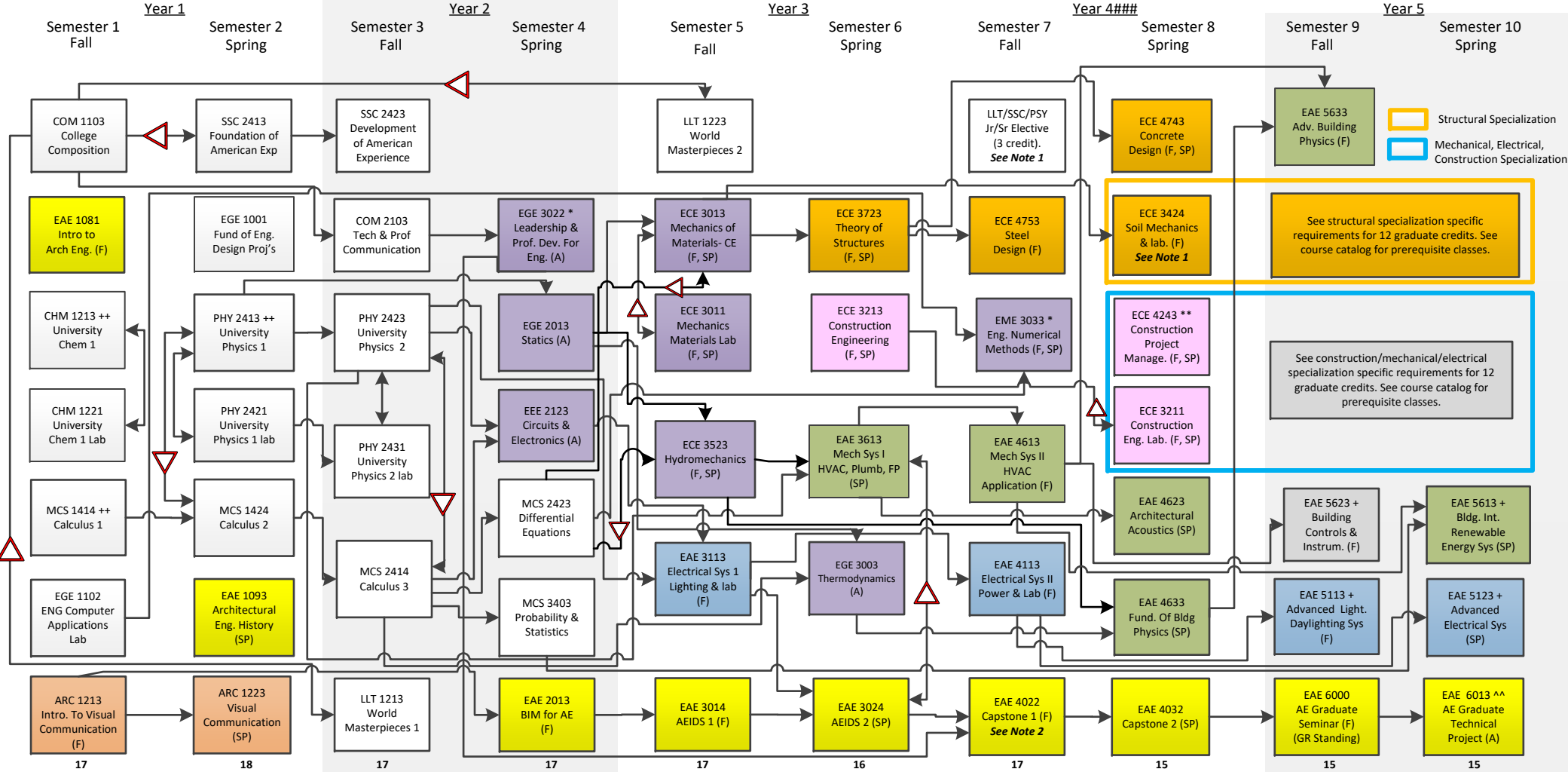


PROGRESSION FLOWCHART
5-Year Integrated Bachelors-Master of Science in Architectural Engineering (MSArE)
Department of Civil & Architectural Engineering (CAE)

Effective for Spring 2023

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: LLT1213, LLT1223, SSC2413 & SSC2423
- ↔ Crossover
- 1 ↔ 2 Course 2 may be taken concurrently with 1 (or Course 1 may be taken without 2)
- 1 ↔ 2 Courses 1 & 2 must be taken concurrently

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

4th Year students will matriculate into the graduate portion of the degree at 129 cr hrs, if, and only if the conditions of overall GPA and program GPA, are at or above 3.0. Students not meeting this criteria will not be permitted until such time as a 3.0 GPA requirement is met.

NOTES:

- If selecting structural specialization, ECE 3424 offered fall semesters only. Recommend switch semesters for Jr/Sr. with ECE 3424.
- See course documents or program director for additional prereq/co-req requirements for EAE 4022.

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

TOTAL DEGREE CREDIT HOURS = 164

Semester Hours:

Freshman	0 – 20
Sophomore	30 – 59
Junior	60 – 89
Senior	=> 90

Keith Kowalkowski,
Ph.D., P.E. SE

Structural (Pick 4, *Req):

*ECE 5703 Design of Timber Struct.
ECE 5413 Shallow and Deep Found.
ECE 5713 Prestressed Concrete Des.
ECE 5733 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 5283 Conceptual Estimating
ECE 5113 Sustainable Con. Pract.
ECE 5213 Design Build
ECE 5223 Techniques of Proj. Plan.
ECE 5233 Advanced Const. Tech.
ECE 5263 Construction Safety
ECE 5273 Construction Law
ECE 6213 Issues in Ing. Eng. Mngt

Mechanical (Pick 4, *Req):

*EAE 5653 Building Optimization
EME 5153 Applied Thermodynamics
EME 5193 Solar and Wind Energy Sys.
EME 5253 Engineering Analysis 1
EME 5263 Energy Resources and Tech.
EME 5353 Transport Phenomena I
EME 6223 Conduction Heat Transfer
EME 6233 Convection Heat Transfer
EME 6543 Comp. Fluid Dynamics

Electrical (Pick 4, *Req)

*EAE 5653 Building Optimization
*EAE 5133 Lighting Design Studio
ECE 5283 Conceptual Estimating
EME 5253 Engineering Analysis 1
EEE 5134 Electric Machines and Drives
EEE 5314 Power Electronics
EEE 6144 Smart Grid Communication
Note: Minimum of 12 credits expected.
Two 4-credit class may be added to a 1 credit directed study with approval of program director.