B.S. IN ARCHITECTURAL ENGINEERING/MASTER OF ARCHITECTURE

Overview

A six-year dual-degree program leading to a Bachelor of Science in Architectural Engineering and a Master of Science in Architecture is available. The program is open to exceptional students who are admitted to the graduate program at the end of their junior year. Upon completion of this program, graduates are eligible for professional registration as both an engineer and an architect. The course requirements for the BSAE/MArch program are shown in the Plan of Study.

Curriculum Requirements

BIS IN ARCHITECTURAL ENGINEERING REQUIREMENTS (155 CREDIT HOURS) Engineering Courses CAE 1115 Introduction to Engineering II: Geospatial Data (Surveying and GIS) 1 CAE 210 Mechanics of Solids I 3 CAE 211 Mechanics of Solids II 3 CAE 212 Structural Laboratory 1 CAE 310 Structural Analysis 3 CAE 321 Structural Analysis 3 CAE 3221 Structural Structures 3 CAE 3231 Steel Structures 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Laboratory 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 381 Building Mechanical Systems I: Hvac Fundamentals 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I: Integrated Engineering Documents 3 CAE 404 Senior Design Project I: Integrated Engineering Documents 3 CAE 440 Promations and Earth Petraining Systems 3 CAE 441	Code	Title	Credit Hours
CAE 1111 Introduction to Engineering I 3 CAE 115 Introduction to Engineering IE Geospatial Data (Surveying and GIS) 1 CAE 210 Mechanics of Solids I 3 CAE 211 Mechanics of Solids II 3 CAE 212 Structural Laboratory 1 CAE 310 Structural Analysis 3 CAE 320 Concrete Structures 3 CAE 321 Steel Structures 3 CAE 323 Steel Structures 3 CAE 330 Fluid Mechanics 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Engineering P 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 402 Professional Engineering Practice 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project II - Integrated Engineering Documents 3 CAE 404 Senior Design Project II - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 481	BS IN ARCHITECTURAL ENGINEERING REQUIR	EMENTS (155 CREDIT HOURS)	
CAE 115 Introduction to Engineering II. Geospatial Data (Surveying and GIS) 3 CAE 210 Mechanics of Solids II 3 CAE 211 Mechanics of Solids II 3 CAE 212 Structural Laboratory 1 CAE 310 Structural Analysis 3 CAE 320 Concrete Structures 3 CAE 321 Steel Structures 3 CAE 330 Fluid Mechanics 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Laboratory 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 381 Building Mechanical Systems I: Hvac Fundamentals 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I - Engineering Deciments 3 CAE 404 Senior Design Project I - Engineering Documents 3 CAE 404 Senior Design Project I - Splideering Documents 3 CAE 404 Senior Design Project I - Integrated Engineering Documents 3 CAE 403 Pulmbing and Life Safety for Buildings <th>Engineering Courses</th> <th></th> <th></th>	Engineering Courses		
CAE 210 Mechanics of Solids I 3 CAE 211 Mechanics of Solids II 3 CAE 212 Structural Laboratory 1 CAE 310 Structural Analysis 3 CAE 320 Concrete Structures 3 CAE 321 Steel Structures 3 CAE 330 Fluid Mechanics 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Laboratory 1 CAE 381 Geotechnical Laboratory 1 CAE 381 Building Mechanical Systems for Buildings 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I - Engineering Design 3 CAE 404 Senior Design Project I - Integrated Engineering Documents 3 CAE 404 Senior Design Project I - Integrated Engineering Documents 3 CAE 404 Senior Design Project I - Integrated Engineering Documents 3 CAE 404 Senior Design Project II - Integrated Engineering Documents 3 CAE 405 Pulmbing and Life Safety for Buildings 3	CAE 111	Introduction to Engineering I	3
CAE 211 Mechanics of Solids II 3 CAE 212 Structural Laboratory 1 CAE 310 Structural Analysis 3 CAE 320 Concrete Structures 3 CAE 321 Steel Structures 3 CAE 330 Fluid Mechanics 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Laboratory 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 381 Building Mechanical Systems I: Have Fundamentals 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I: Engineering Design 3 CAE 404 Senior Design Project I: Integrated Engineering Documents 3 CAE 440 Senior Design Project I: Integrated Engineering Documents 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 481 Building Mechanical Systems II: HYAC Systems 3 CAE 481 Building Mechanical Systems II: HYAC Systems 3 CAE 581 Energy-Efficient Building Design	CAE 115	Introduction to Engineering II: Geospatial Data (Surveying and GIS)	1
CAE 212 Structural Laboratory 1 CAE 310 Structural Analysis 3 CAE 320 Concrete Structures 3 CAE 321 Steel Structures 3 CAE 320 Fluid Mechanics 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Laboratory 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 381 Building Mechanical Systems I: Hvac Fundamentals 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I - Engineering Design 3 CAE 404 Senior Design Project II - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 482 Plumbing and Life Safety for Buildings 3 CAE 483 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3	CAE 210	Mechanics of Solids I	3
CAE 310 Structural Analysis 3 CAE 320 Concrete Structures 3 CAE 321 Steel Structures 3 CAE 330 Fluid Mechanics 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Laboratory 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 381 Building Mechanical Systems I: Hvac Fundamentals 3 CAE 402 Professional Engineering Practice 3 CAE 402 Professional Engineering Practice 3 CAE 404 Senior Design Project I - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 460 Construction Management 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 581 Energy-Efficient Building Design 3 CAE 581 Energy-Efficient Building Design 3 CAE 581 Building Information Modeling I 3 ARC	CAE 211	Mechanics of Solids II	3
CAE 320 Concrete Structures 3 CAE 321 Steel Structures 3 CAE 330 Fluid Mechanics 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Laboratory 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 381 Building Mechanical Systems I: Hyac Fundamentals 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I - Engineering Design 3 CAE 404 Senior Design Project I - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HYAC Systems 3 SE 311 Applied Probability and Statistics 3 SE 311 Applied Probability and Statistics 3 SE 482 Building Information Modeling I 3 AFC 250 Building Technology I: Materials and Methods	CAE 212	Structural Laboratory	1
CAE 321 Steel Structures 3 CAE 330 Fluid Mechanics 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Laboratory 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 381 Building Mechanical Systems I: Hvac Fundamentals 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I - Engineering Design 3 CAE 404 Senior Design Project II - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 482 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 SE 311 Applied Probability and Statistics 3 CAE 361 Building Information Modeling I 3 ARC 303 Building Technology I: M	CAE 310	Structural Analysis	3
CAE 330 Fluid Mechanics 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Laboratory 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I - Engineering Design 3 CAE 404 Senior Design Project I - Integrated Engineering Documents 3 CAE 406 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 SE 511 Applied Probability and Statistics 3 CAE 363 Building Information Modeling I 3 CAE 361 Building Technology I: Materials and Methods 3 ARC 230 Building Technology I: Materials and Methods 3 ARC 268 H	CAE 320	Concrete Structures	3
CAE 330 Fluid Mechanics 3 CAE 370 Geotechnical Engineering I 3 CAE 371 Geotechnical Laboratory 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I - Engineering Design 3 CAE 404 Senior Design Project I - Integrated Engineering Documents 3 CAE 406 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 SE 511 Applied Probability and Statistics 3 CAE 363 Building Information Modeling I 3 CAE 361 Building Technology I: Materials and Methods 3 ARC 230 Building Technology I: Materials and Methods 3 ARC 268 H	CAE 321	Steel Structures	3
CAE 371 Geotechnical Laboratory 1 CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 381 Building Mechanical Systems I: Hyac Fundamentals 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I - Engineering Design 3 CAE 404 Senior Design Project II - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 481 Building Mechanical Systems II: HYAC Systems 3 CAE 581 Energy-Efficient Building Design 3 SE 311 Applied Probability and Statistics 3 CAE 303 Thermodynamics 3 CAE 304 Building Information Modeling I 3 Architecture Courses 1 ARC 202 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 203 History of Architecture II: Baroque through Contemporary 3 ARC 204 History of Architecture Design and Theory II 6 ARC 502	CAE 330	Fluid Mechanics	
CAE 380 Electrical and Illumination Systems for Buildings 3 CAE 381 Building Mechanical Systems I: Hvac Fundamentals 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project II - Integrated Engineering Documents 3 CAE 404 Senior Design Project II - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 CAE 581 Energy-Efficient Building Design 3 ME 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses 1 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture Design and Theory I 6 ARC	CAE 370	Geotechnical Engineering I	3
CAE 381 Building Mechanical Systems I: Hvac Fundamentals 3 CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I - Engineering Design 3 CAE 404 Senior Design Project I - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 SE 311 Applied Probability and Statistics 3 MAE 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses 3 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 501 Architecture Design and Theory I 6 ARC 502 <	CAE 371	Geotechnical Laboratory	1
CAE 402 Professional Engineering Practice 3 CAE 403 Senior Design Project I - Engineering Design 3 CAE 404 Senior Design Project II - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 SE 381 Applied Probability and Statistics 3 MAE 303 Thermodynamics 3 CAE 861 Building Information Modeling I 3 Architecture Courses 1 ARC 220 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 260 Architecture Design and Theory I 6 ARC 501 Architecture Design and Theory II 6 ARC 503 Architecture Design and Theory II 6 ARC 504 <	CAE 380	Electrical and Illumination Systems for Buildings	3
CAE 403 Senior Design Project I - Engineering Design 3 CAE 404 Senior Design Project II - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 ISE 311 Applied Probability and Statistics 3 MAE 303 Thermodynamics 3 CAE 481 Building Information Modeling I 3 Architecture Courses 4 1 ARC 212 Architecture and Culture 1 ARC 223 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Design and Theory I 6 ARC 501 Architecture Design and Theory II 6 ARC 503 Architecture Design and Theory II 6 ARC 501 <td>CAE 381</td> <td>Building Mechanical Systems I: Hvac Fundamentals</td> <td>3</td>	CAE 381	Building Mechanical Systems I: Hvac Fundamentals	3
CAE 404 Senior Design Project II - Integrated Engineering Documents 3 CAE 460 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 ISE 311 Applied Probability and Statistics 3 MAE 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses 4 1 ARC 230 Building Technology I: Materials and Methods 3 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Design and Theory I 6 ARC 501 Architecture Design and Theory II 6 ARC 503 Architecture Design and Theory III 6 ARC 504 Architecture Design and Theory I 6 AR	CAE 402	Professional Engineering Practice	3
CAE 460 Construction Management 3 CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 ISE311 Applied Probability and Statistics 3 MAE 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses 1 ARC 121 Architecture and Culture 1 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Design and Theory I 6 ARC 501 Architecture Design and Theory II 6 ARC 502 Architecture Design and Theory III 6 ARC 503 Architecture Design and Theory II 6 ARC 504 Architecture Design and Theory II 6 ARC 505 Architecture Design and Theory II	CAE 403	Senior Design Project I - Engineering Design	3
CAE 470 Foundations and Earth Retaining Systems 3 CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 ISE 311 Applied Probability and Statistics 3 MAE 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses ARC 121 Architecture and Culture 1 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Design and Theory I 6 ARC 501 Architecture Design and Theory II 6 ARC 503 Architecture Design and Theory III 6 ARC 504 Architecture Design and Theory II 6 ARC 505 Architecture Design and Theory II 6 ARC 501 Visual Representation I 3 Math and Science Courses <	CAE 404	Senior Design Project II - Integrated Engineering Documents	3
CAE 480 Plumbing and Life Safety for Buildings 3 CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 ISE 311 Applied Probability and Statistics 3 MAE 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses ARC 121 Architecture and Culture 1 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I 6 ARC 502 Architecture Design and Theory III 6 ARC 503 Architecture Design and Theory III 6 ARC 504 Architecture Design and Theory I 6 ARC 501 Architecture Design and Theory I 6 ARC 501 Architecture Design and Theory I 6 ARC 502 Architecture Design and Theory I <t< td=""><td>CAE 460</td><td>Construction Management</td><td></td></t<>	CAE 460	Construction Management	
CAE 481 Building Mechanical Systems II: HVAC Systems 3 CAE 581 Energy-Efficient Building Design 3 ISE 311 Applied Probability and Statistics 3 MAE 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses ARC 121 Architecture and Culture 1 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory II 6 ARC 502 Architecture Design and Theory III 6 ARC 504 Architecture Design and Theory II 6 ARC 505 Architecture Design and Theory I 6 ARC 501 Visual Representation I 3 ARth and Science Courses 5 MTH 151 Calculus I for Engineers 5	CAE 470	Foundations and Earth Retaining Systems	3
CAE 581 Energy-Efficient Building Design 3 ISE 311 Applied Probability and Statistics 3 MAE 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses ARC 121 Architecture and Culture 1 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I 6 ARC 502 Architecture Design and Theory III 6 ARC 503 Architecture Design and Theory III 6 ARC 504 Architecture Design and Theory I 6 ARC 505 Architecture Design and Theory I 6 ARC 501 Visual Representation I 3 Wath and Science Courses 5 MTH 151 Calculus I for Engineers 5	CAE 480	Plumbing and Life Safety for Buildings	3
CAE 581 Energy-Efficient Building Design 3 ISE 311 Applied Probability and Statistics 3 MAE 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses ARC 121 Architecture and Culture 1 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I 6 ARC 502 Architecture Design and Theory III 6 ARC 503 Architecture Design and Theory III 6 ARC 504 Architecture Design and Theory I 6 ARC 505 Architecture Design and Theory I 6 ARC 501 Visual Representation I 3 Wath and Science Courses 5 MTH 151 Calculus I for Engineers 5	CAE 481	Building Mechanical Systems II: HVAC Systems	3
MAE 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses 4RC 121 Architecture and Culture 1 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I 6 ARC 502 Architecture Design and Theory III 6 ARC 503 Architecture Design and Theory III 6 ARC 504 Architecture Design and Theory I 6 ARC 501 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	CAE 581	Energy-Efficient Building Design	
MAE 303 Thermodynamics 3 CAE 361 Building Information Modeling I 3 Architecture Courses *** ARC 121 Architecture and Culture 1 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I 6 ARC 502 Architecture Design and Theory III 6 ARC 503 Architecture Design and Theory III 6 ARC 504 Architecture Design and Theory I 6 ARC 501 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	ISE 311	Applied Probability and Statistics	3
Architecture Courses ARC 121 Architecture and Culture ARC 230 Building Technology I: Materials and Methods ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I ARC 502 Architecture Design and Theory II ARC 503 Architecture Design and Theory III ARC 504 Architecture Design and Theory II ARC 505 Architecture Design and Theory II ARC 506 Architecture Design and Theory II ARC 507 Architecture Design and Theory II ARC 508 Architecture Design and Theory II ARC 509 Architecture Design and Theory II ARC 500 Architecture Design and Theory II ARC 501 Architecture Design and Theory II ARC 502 Architecture Design and Theory II ARC 503 Architecture Design and Theory II ARC 504 Architecture Design and Theory II ARC 505 Architecture Design and Theory II ARC 506 Architecture Design and Theory II ARC 507 Architecture Design and Theory II ARC 508 Architecture Design and Theory II ARC 509 Architecture Design and Theory II ARC 500 Architecture Design and Theory II ARC 501 Architecture Design and Theory II ARC 502 Architecture Design and Theory II ARC 503 Architecture Design and Theory II ARC 504 Architecture Design and Theory II ARC 505 Architecture Design and Theory II ARC 506 Architecture Design and Theory II ARC 507 Architecture Design and Theory II ARC 508 Architecture Design and Theory II ARC 509 Architecture Design and Theory II ARC 500 Architecture Design and Theory III ARC 500 Architecture Design and Theory II ARC 500 Architecture Design and Theory III ARC 500 Architecture Design and The	MAE 303	Thermodynamics	
ARC 121 ARC 230 Building Technology I: Materials and Methods 3 ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I 6 ARC 502 Architecture Design and Theory II 6 ARC 503 Architecture Design and Theory III 6 ARC 504 Architecture Design and Theory II 6 ARC 511 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	CAE 361	Building Information Modeling I	3
ARC 230 Building Technology I: Materials and Methods ARC 267 History of Architecture I: Ancient, Medieval and Renaissance 3 ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I ARC 502 Architecture Design and Theory II 6 ARC 503 Architectural Design and Theory III 6 ARC 504 Architectural Design and Theory I ARC 505 Architecture Design and Theory I 6 ARC 501 Architecture Design and Theory I 7 ARC 502 Architecture Design and Theory I 8 ARC 503 Architecture Design and Theory I 9 ARC 504 Architecture Design and Theory I 9 ARC 505 Architecture Design and Theory I 9 ARC 506 Architecture Design and Theory I 9 ARC 507 ARC 508 Architecture Design and Theory I 9 ARC 509 Architecture Design and Theory I 9 ARC 501 Architecture Design and Theory I 9 ARC 501 Architecture Design and Theory I 9 ARC 502 Architecture Design and Theory I 9 ARC 503 Architecture Design and Theory I 9 ARC 504 Architecture Design and Theory I 9 ARC 505 Architecture Design and Theory I 9 ARC 506 Architecture Design and Theory I 9 ARC 507 Architecture Design and Theory I 9 ARC 508 Architecture Design and Theory I 9 ARC 509 Architecture Design and Theory I 9 ARC 500 Architecture Design and Theory II 9 ARC 500 Architecture Design and Theory	Architecture Courses		
ARC 267 ARC 268 Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I ARC 502 Architecture Design and Theory II ARC 503 Architecture Design and Theory III 6 ARC 504 Architecture Design and Theory I ARC 511 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	ARC 121	Architecture and Culture	1
ARC 268 History of Architecture II: Baroque through Contemporary 3 ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I 6 ARC 502 Architecture Design and Theory II 6 ARC 503 Architectural Design and Theory III 6 ARC 504 Architectural Design and Theory I II 6 ARC 511 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	ARC 230	Building Technology I: Materials and Methods	3
ARC 500 Architecture Theory 3 ARC 501 Architecture Design and Theory I 6 ARC 502 Architecture Design and Theory II 6 ARC 503 Architectural Design and Theory III 6 ARC 504 Architectural Design and Theory III 6 ARC 511 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	ARC 267	History of Architecture I: Ancient, Medieval and Renaissance	3
ARC 501 Architecture Design and Theory I 6 ARC 502 Architecture Design and Theory II 6 ARC 503 Architectural Design and Theory III 6 ARC 504 Architecture Design and Theory III 6 ARC 511 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	ARC 268	History of Architecture II: Baroque through Contemporary	3
ARC 502 Architecture Design and Theory II 6 ARC 503 Architectural Design and Theory III 6 ARC 504 Architecture Design and Theory I 6 ARC 511 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	ARC 500	Architecture Theory	3
ARC 503 Architectural Design and Theory III 6 ARC 504 Architecture Design and Theory I 6 ARC 511 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	ARC 501	Architecture Design and Theory I	6
ARC 504 Architecture Design and Theory I 6 ARC 511 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	ARC 502	Architecture Design and Theory II	6
ARC 511 Visual Representation I 3 Math and Science Courses MTH 151 Calculus I for Engineers 5	ARC 503	Architectural Design and Theory III	6
Math and Science Courses MTH 151 Calculus I for Engineers 5	ARC 504	Architecture Design and Theory I	6
MTH 151 Calculus I for Engineers 5	ARC 511	Visual Representation I	3
-	Math and Science Courses		
MTH 162 Calculus II 4		Calculus I for Engineers	
	MTH 162	Calculus II	4

MTH 211	Calculus III	3
MTH 311	Introduction to Ordinary Differential Equations	3
CHM 151	Chemistry for Engineers	3
CHM 153	Chemistry Laboratory for Engineers	1
PHY 221	University Physics I	3
PHY 222	University Physics II	3
PHY 223	University Physics III	3
PHY 224	University Physics II Lab	1
PHY 225	University Physics III Lab	1
General Education Requirements		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
WRS 107	First-Year Writing II: STEM	3
Quantitative Skills:		
MTH 151	Calculus I for Engineers (fulfilled through the major)	
Areas of Knowledge:		
Arts and Humanities Cognate (9 credits) (fulfilled through	n the ARC courses in the major)	
People and Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the major)		
Additional Required Courses		
GEG 199	Geographic Information Systems for Engineers	1
Technical Elective		3
MASTER OF ARCHITECTURE REQUIREMENTS (45 CRED	T HOURS)	
ARC 608	Integrated Architecture Design Studio	6
ARC 609	Architecture Design	6
ARC 610	Architecture Design Degree Project	6
ARC 613	Spatial Representation + Architectural Media 2	3
ARC 620	Responsible Architecture	3
ARC 652	Management of Professional Practice	3
ARC 699	Directed Research (Architecture Thesis Prep)	6
Architecture Elective		9
Architecture History Elective		3
Total Credit Hours		200

Plan of Study

Year One		
First Semester		Credit Hours
CAE 111	Introduction to Engineering I	3
WRS 105	First-Year Writing I	3
MTH 151	Calculus I for Engineers	5
PHY 221	University Physics I	3
ARC 121	Architecture and Culture	1
	Credit Hours	15
Second Semester		
CAE 115	Introduction to Engineering II: Geospatial Data (Surveying and GIS)	1
CAE 210	Mechanics of Solids I	3
WRS 107	First-Year Writing II: STEM	3
GEG 199	Geographic Information Systems for Engineers	1
MTH 162	Calculus II	4
PHY 222	University Physics II	3
PHY 224	University Physics II Lab	1
	Credit Hours	16

Year Two		
First Semester		
CAE 211	Mechanics of Solids II	3
CAE 212	Structural Laboratory	1
ARC 230	Building Technology I: Materials and Methods (ARC 630) 1	3
ARC 267	History of Architecture I: Ancient, Medieval and Renaissance (ARC 667) 1	3
PHY 223		
	University Physics III	3
PHY 225	University Physics III Lab	1
ISE 311	Applied Probability and Statistics	3
0	Credit Hours	17
Second Semester	Objective LAmelonia (ADO COL)	
CAE 310	Structural Analysis (ARC 631) 1	3
CHM 151	Chemistry for Engineers	3
CHM 153	Chemistry Laboratory for Engineers	1
MAE 303	Thermodynamics	3
MTH 211	Calculus III	3
MTH 311	Introduction to Ordinary Differential Equations	3
	Credit Hours	16
Year Three		
Summer		
Required 10 Week Semester		
ARC 203	Architecture Design III (ARC 606) ^{2 \$}	6
	Credit Hours	6
First Semester		
CAE 320	Concrete Structures (ARC 633) 1 \$	3
CAE 330	Fluid Mechanics	3
PS Cognate ¹		3
ARC 501	Architecture Design and Theory I (ARC 292/ARC604) 1 \$	6
ARC 511	Visual Representation I (ARC 611) ^{2 \$}	3
PS Cognate *		3
	Credit Hours	21
Second Semester		
CAE 321	Steel Structures (ARC 632) 1 \$	3
CAE 380	Electrical and Illumination Systems for Buildings (ARC 663) 1 \$	3
CAE 381	Building Mechanical Systems I: Hvac Fundamentals (ARC 662) 1 \$	3
ARC 502	Architecture Design and Theory II (ARC 293/ARC 605) 1 \$	6
ARC 513	Advanced Visual Representation (ARC 613) ^{2 \$}	3
7110 010	Credit Hours	18
Summer (Required 10-week semester)	orcan riduid	10
ARC 503	Architectural Design and Theory III	6
7110 300	Credit Hours	
Year Four	CIEUR FIVUIS	6
First Semester		
	Dlumbing and Life Sefety for Buildings	
CAE 480	Plumbing and Life Safety for Buildings \$	3
ARC 500	Architecture Theory (ARC 620) ^{2 §}	3
ARC 504	Architecture Design and Theory I (ARC 607) ^{2 \$}	6
CAE 361 Building Information Modeling I	o. Paul	3
	Credit Hours	15
Second Semester		
CAE 370	Geotechnical Engineering I \$	3
CAE 371	Geotechnical Laboratory \$	1
CAE 402	Professional Engineering Practice	3

B.S. in Architectural Engineering/Master of Architecture

CAE 460	Construction Management (Arch Elective) 1 \$	3
ARC 268	History of Architecture II: Baroque through Contemporary (ARC 668) ^{2 \$}	3
Architecture Elective ²		3
	Credit Hours	16
Year Five		
First Semester		
CAE 403	Senior Design Project I - Engineering Design ^{\$}	3
CAE 470	Foundations and Earth Retaining Systems ^{\$}	3
CAE 481	Building Mechanical Systems II: HVAC Systems (ARC Elective) 1\$	3
ARC 608	Integrated Architecture Design Studio ^{2 \$}	6
	Credit Hours	15
Second Semester		
CAE 404	Senior Design Project II - Integrated Engineering Documents ^{\$}	3
ARC 609	Architecture Design ²	6
Architecture Elective ²		3
PS Cognate *		3
	Credit Hours	15
Year Six		
First Semester		
ARC 699	Directed Research ^{2 \$}	3
ARC 652	Management of Professional Practice ^{2 \$}	3
History of Architecture Elective ²		3
Architecture Elective ²		3
PS Cognate *		3
	Credit Hours	15
Second Semester		
CAE 581	Energy-Efficient Building Design (ARC Elective) 1\$	3
ARC 610	Architecture Design Degree Project ^{2 \$}	6
Architecture Elective ²		3
	Credit Hours	12
	Total Credit Hours	203

Note: ARC 292 (http://bulletin.miami.edu/search/?search=arc+292) or ARC 293 (http://bulletin.miami.edu/search/?search=arc+293), ARC 267 (http://bulletin.miami.edu/search/?search=arc+268) are required to satisfy the Humanities and Arts (HA) cognate in Architecture: Design and Theory.

Footnotes

- Shared BSAE/M.Arch Curriculum
- ² M.Arch Curriculum
- * To be selected from a People and Society (PS) Cognate
- \$ Only offered one per year.