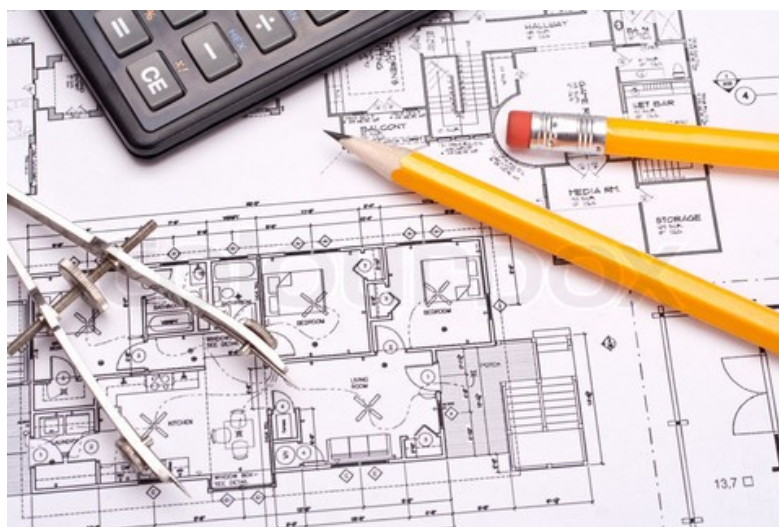


Associate in Arts Pathway to a major in Architectural Engineering (10905) 2015—2016

About the Major

Architectural Engineering deals with integrated design, construction and operation of buildings. It includes all engineering aspects related to the built environment - structures, mechanical systems (HVAC), electrical/lighting systems, building envelope, indoor environment - and is therefore related to multi-disciplinary research and education. They are in many ways similar to civil and mechanical engineering, but it is specifically geared toward the building industry, which includes the planning, design, construction, and operation of engineered systems for all different kinds of buildings.



Areas of Specialization

- ◆ Building materials
- ◆ Construction methods
- ◆ Acoustics
- ◆ Mechanical systems
- ◆ Structures
- ◆ Construction
- ◆ Sustainability

What can I do with this degree

With a degree in architectural engineering, you can choose from a variety of career opportunities including: architectural firms, private engineering consulting companies, mechanical contractors, government, energy efficiency consultants, lighting designers, and construction companies. There is a great demand for architectural engineers in many areas.



Earn This Degree and Work as...

Position	Median Salary
Civil Engineer	\$79,340
Architectural Engineer	\$79,000
Structural Engineer	\$85,000
Engineering Manager	\$124,870

Source for position and salary information is from Bureau of Labor Statistics 2012.

A.A. Pathway to a major in Architectural Engineering Program Code 10905

Total credits required for the degree is 60.

If you decide to major in Architectural Engineering, you'll study the fundamentals of engineering and building construction as well as architectural history and design, math, the physical sciences, computer programming, and surveying.

GENERAL EDUCATION REQUIREMENTS—36 credits required (Select the following courses)

Course	Course Title	Credits
ENC1101	English Composition 1	3
ENC1102	English Composition 2	3
SPC1017	Fundamental of Speech Communication	3
PHI2604	Critical Thinking/Ethics	3
PHI2010	Introduction to Philosophy	3
PSY2012	Introduction to Psychology	3
ECO2013	Principles of Macro-Economics	3
MAC2311	Calculus 1	5
MAC2312	Calculus 2	1
CHM1045	General Chemistry 1	3
BSC2010	Principles of Biology 1	3
MAP2302	Differential Equations (Gen. Educ. Req.)	3

MAJOR COURSE ELECTIVES— 24 credits required

Choose 24 credits of these Electives under your advisor's guidance.

MAC2312	Calculus 2	3
MAC2313	Calculus 3	4
ARC1301	Architectural Design 1	4
ARC1302	Architectural Design 2	4
COP2270	"C" for Engineers	4
PHY2048	Physics with Calculus 1	4
PHY2048L	Physics with Calculus 1 Lab	1

COMPUTER COMPETENCY

CGS1060	Intro to Microcomputer Usage	0
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*Required Engineering pre-requisite courses

Classes which are required to transfer to a Engineering degree granting institution include the following:

CHM1045L	General Chemistry 1 Lab	2
BSC2010L	Principles of Biology 1 Lab	2
PHY2049	Physics with Calculus 2	4
PHY2049L	Physics with Calculus 2 Lab	1
ARC2461	Architectural Materials and Construction 1	4
EGN2312	Engineering Statics	4

The following schedule is based on students beginning in one of the major semesters (Fall or Spring) and following the suggested schedule on a continuing Fall/Spring basis as prescribed by the Faculty of the Department. This however is only one of many possible methods to complete your degree. Please note that some classes may not be offered every semester as well as some may not be offered in the Summer. It is highly recommended that you seek the advice of an Engineering department advisor and/or faculty member prior to starting.

First Term

15 Credits

ENC1101	English Composition 1	3
MAC2311	Calculus 1	5
SPC1017	Fundamentals of Speech Communication	3
CGS1060	Introduction to Microcomputers	4

Second Term

16 Credits

ENC1102	English Composition 2	3
MAC2312	Calculus 2	4
CHM1045	General Chemistry 1	3
CHM1045L	General Chemistry 1 Lab	2
ARC1301	Architectural Design 1	4

Third Term

16 Credits

PHI2604	Critical Thinking/Ethics	3
MAC2313	Calculus 3	4
PHY2048	Physics with Calculus 1	4
PHY2048L	Physics with Calculus 1 Lab	1
ARC1302	Architectural Design 2	4

Fourth Term

15 Credits

PHI2010	Introduction to Philosophy	3
MAP2302	Differential Equations	3
PHY2049	Physics with Calculus 2	4
PHY2049L	Physics with Calculus 2 Lab	1
COP2270	"C" for Engineers	4

Fifth Term*

15 Credits

PSY2012	Introduction to Psychology	3
ECO2013	Principles of Macro-Economics	3
EGN2312	Engineering Statics	4
BSC2010	Principles of Biology 1	3
BSC2010L	Principles of Biology 1 Lab	2

NOTE: Some classes have pre-requisite or co-requisite requirements which may or may not be listed on the program sheet. It is the students responsibility to find out which classes do have these said requirements and consult with the engineering advisor prior to starting the program.

FOR FURTHER INFORMATION

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