



# New Academic Program: BS in Architectural Engineering

Academic Strategies Committee Meeting

May 31, 2018



ARCHITECTURAL  
ENGINEERING  
INSTITUTE

*“Architectural engineering is the application of engineering principles and technology to building design and construction. Architectural engineers work together with architects and civil engineers, but are unique in both their skills and role as part of the building design team.”*

The proposed BS in Architectural Engineering (ARE) degree program will provide students with breadth and depth in the engineering sciences of buildings and their systems:

- structural systems
- heating, ventilation and air-conditioning (HVAC) systems
- electrical and lighting systems
- construction engineering and management

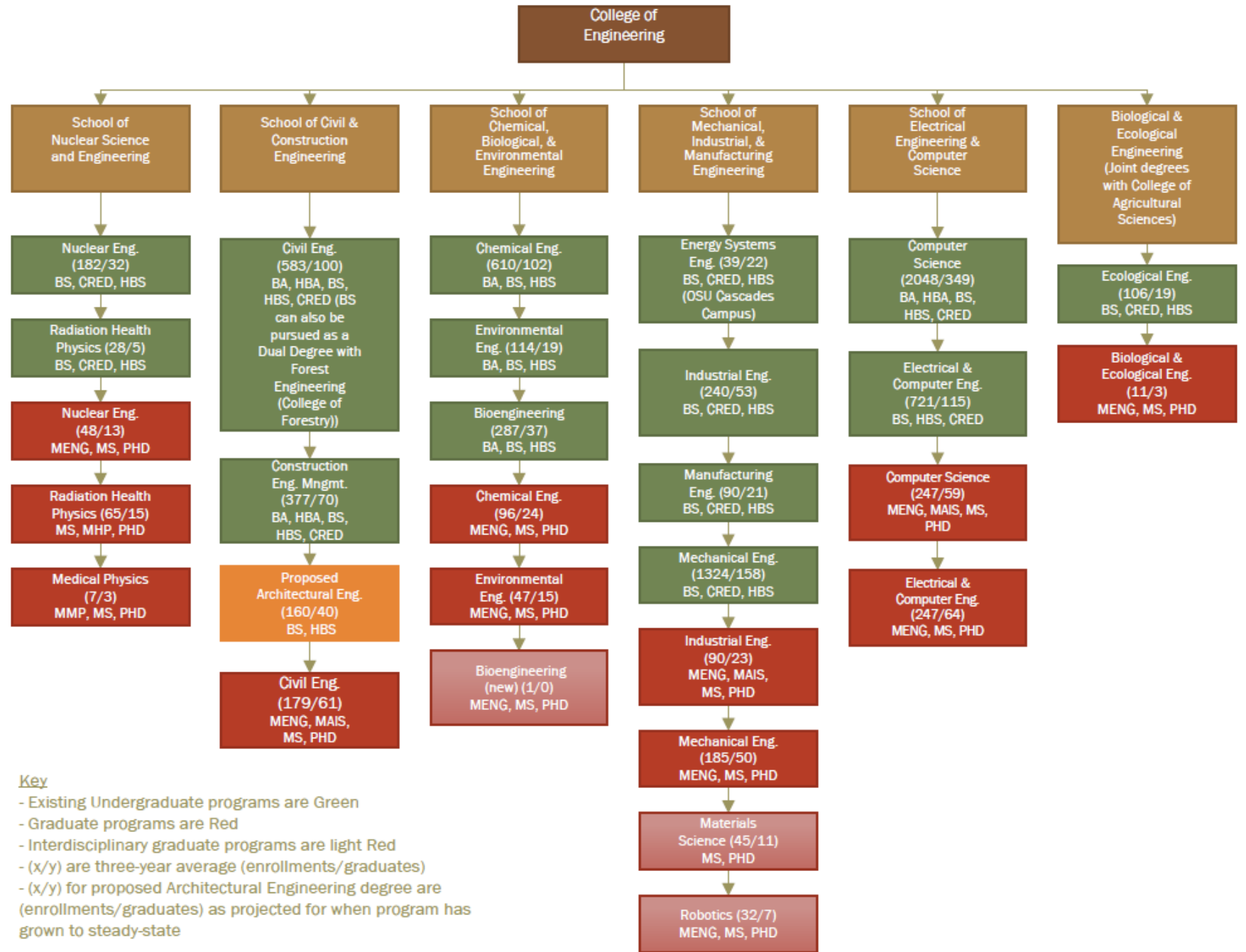
The program will emphasize integration across architectural engineering disciplines as well as with the existing civil engineering and construction engineering programs.



Civil & Construction Eng.



Wood Science & Eng.






**Key**

- Existing Undergraduate programs are Green
- Graduate programs are Red
- Interdisciplinary graduate programs are light Red
- (x/y) are three-year average (enrollments/graduates)
- (x/y) for proposed Architectural Engineering degree are (enrollments/graduates) as projected for when program has grown to steady-state

# ABET-accredited Architectural Engineering (ARE) Bachelor Degree Programs



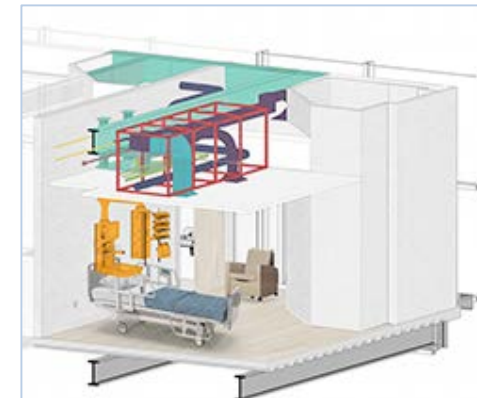
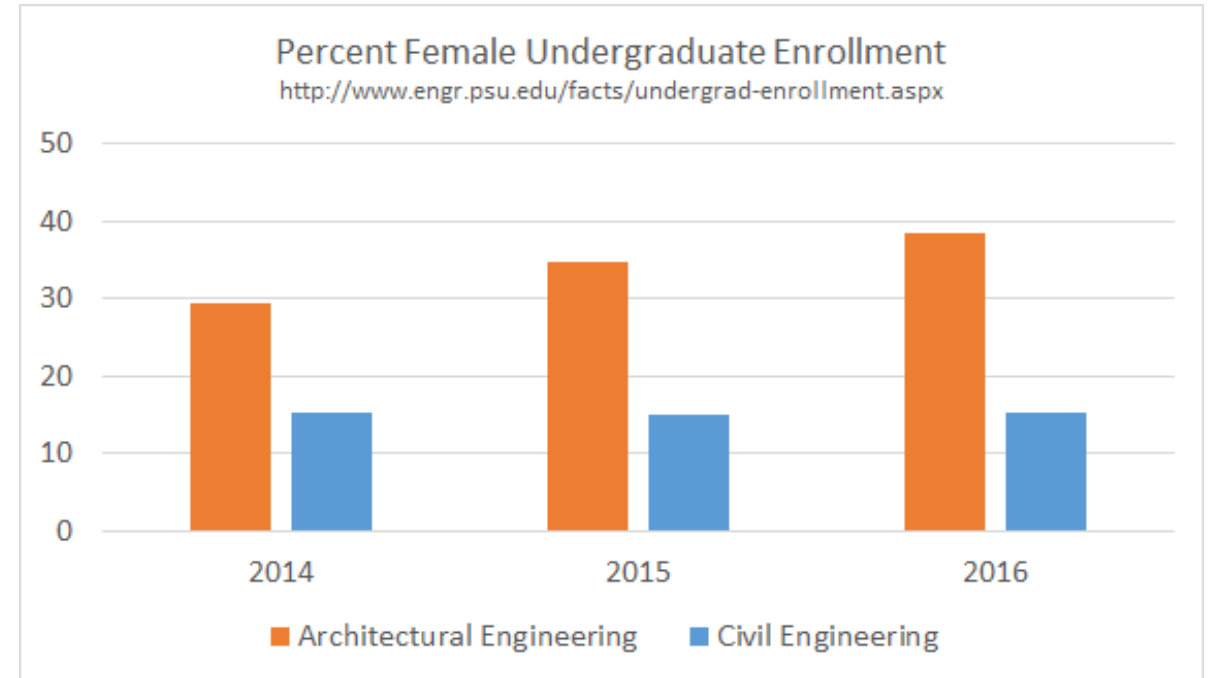
-  Full ARE program
-  Missing one or more breadth / depth areas
-  Accreditation in progress (full ARE program)

# Architectural Engineering Students

*“Architectural engineering programs graduate on average 30% women which is far higher than the percentages of women in other engineering programs.”*

Two-thirds of female students surveyed at one program chose architectural engineering because of strength in math and interest in art / architecture.

(Estes and Brady, 2011)



*2018 AEI Student Design Competition winner – resilient, energy efficient children’s hospital*

<http://www.ae.psu.edu/news/Sp18/aei-competition.aspx>