#### **Southeast Tech**

#### Architectural Engineering and Construction Management Program Overview **EXECUTIVE SUMMARY**

#### **Purpose:**

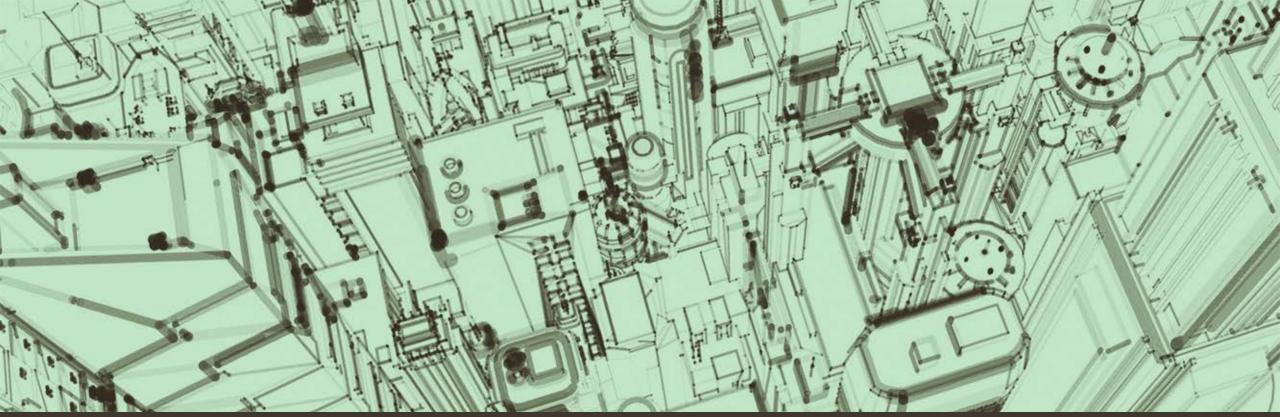
To provide the School Board information about the Architectural Engineering and Construction Management programs offered by Southeast Tech.

The presentation will provide the School Board information about the Architectural Engineering and Construction Management programs at Southeast Tech and introduce the principals involved. The presentation will include program descriptions, program outcomes and career opportunities.

#### **Administrative Recommendation to School Board:**

To acknowledge the Academic Program Overview Report.

Report Prepared by: Academics
Presented by: Southeast Tech Faculty



# Architectural Engineering Tech. & Construction Management Tech.

Southeast Technical Institute

Sioux Falls, South Dakota



# Instructors: Jeff Schlepp, AIA Kristen Gundvaldson, P.E.

Registered Architect (NDSU) and Professional Engineer (SDSU)

## Program classes required for graduation:

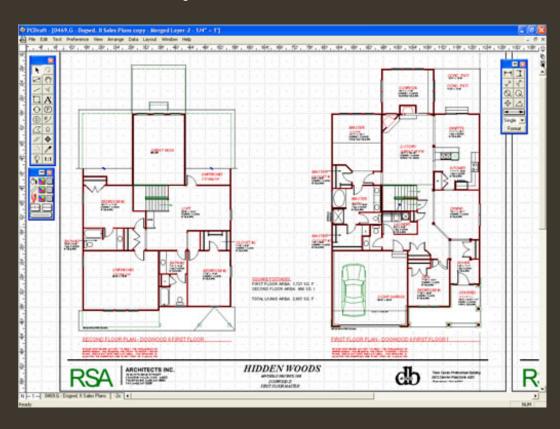
- Engineering Drawing (Arch)
- Materials and Methods of Construction (Emphasis on Residential Construction) (Arch and Const.)
- Architectural Drawing I (Design and draw a residential home) (Arch)
- Commercial Construction Techniques (Emphasis on Commercial Construction) (Arch & Const. Manage)

## Program classes required for graduation:

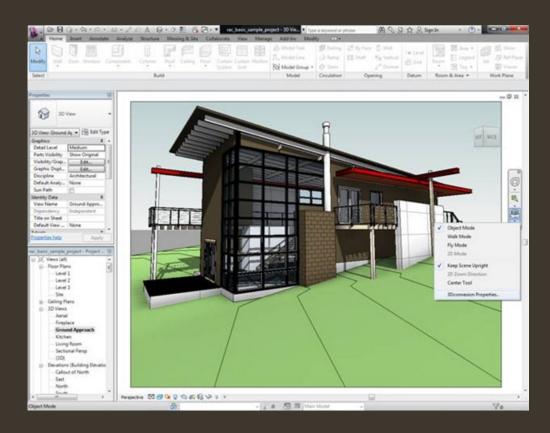
- Architectural Drawing II (Draw various commercial structures: Live Projects)
- Mechanical Electrical Systems (Focus on the Electrical and Lighting Layout, Heating Ventilation and Air Conditioning, Plumbing Systems)
- Green Building Techniques: Become aware of energy efficient design features that lead to a LEED Certification (Leadership in Energy and Environmental Design)
- Estimating (Focus on the cost of materials and labor)

## Architectural Drawing Software

#### **AutoCAD by AutoDESK**

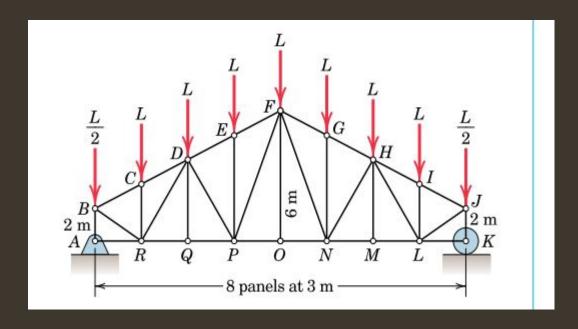


#### Revit Architectural Software

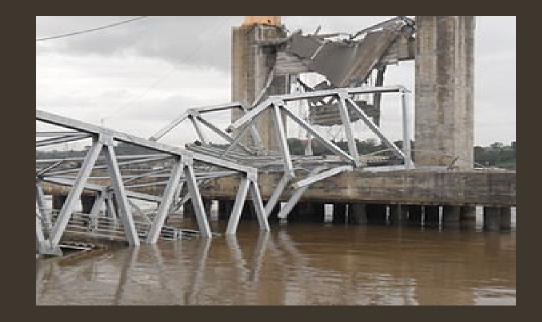


## Engineering Math Requirements

Statics (Arch and Construction)



Strengths of Materials (Arch.)



# Required General Education Classes:

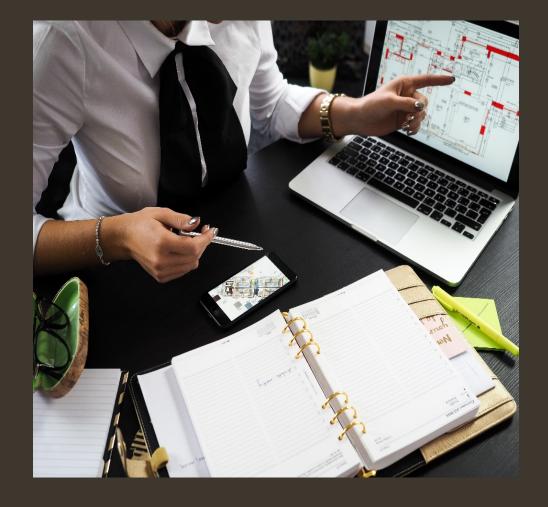
- English Composition
- Technical Writing or Speech
- Psychology
- Social Problems
- Algebra-Trigonometry
- Computer Essentials

# Opportunities in the REAL WORLD

- Architectural Firms
- Mechanical Engineering Firms
- Electrical Engineering Firms
- Structural Engineering Firms
- Residential Building Contractors
- Commercial Building Contractors
- Interior Design Firms

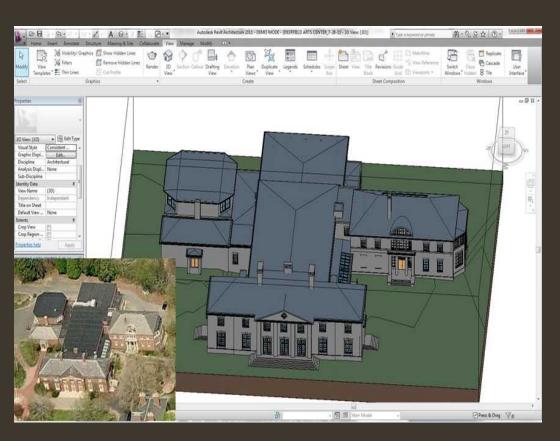
## Classroom Projects





# Model Building and 3-D Drawing and Design





## Construction Management Technology Field Trips

#### New Prairie Green Pro Shop

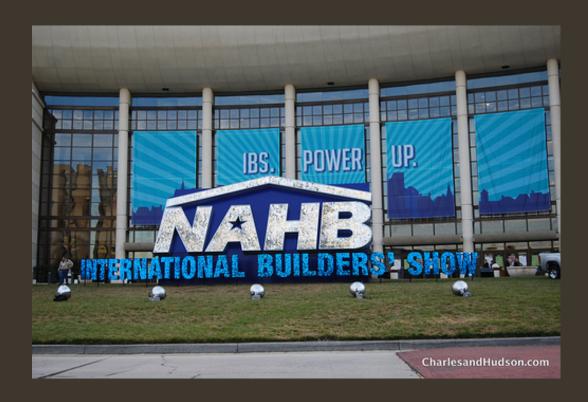


#### George McGovern Middle School



# HBA Student Chapter Involvement

**Home Builders Association** 



Orlando, FL Or Las Vegas, NV



# HBA Student Chapter Involvement

Sioux Empire Home Show



Lumberman's Convention



# From the Beginning to End

## Jump Start Project



### **Final Graduation**

