# **CONSTRUCTION MANAGEMENT**

PROGRAM CONFERENCE PRESENTATION



LIAK WOOD

# WHAT IS C.M.?

"Construction Management is a professional service that provides a project's owner(s) with effective management of the project's schedule, cost, quality, safety, scope, and function... The CM represents the owner's interest and provides oversight over the entire project directly for the owner. His/her mandate is to work with all parties to deliver the project on time, at or under budget, and to the owner's expected standard of quality, scope, and function... CMs are uniquely qualified through combined education and experience to work with the owner, architect, general contractor, and other stakeholders to determine the best possible sequence of construction operations and develop a detailed schedule and budget, while also establishing plans for project safety and security and helping the owner manage risk."

- Construction Management Association of America





# **MEET OUR FULL-TIME FACULTY AND STAFF**







#### **Joe Greathouse**

Professor Construction Management joe.greathouse@kirkwood.edu

#### **Dave Becicka**

Assistant Professor Construction Management <u>dave.becicka@kirkwood.edu</u>

### **Daniel Lamp**

Associate Professor Built Environment dan.lamp@kirkwood.edu



# **GUIDED PATHWAYS**

Kirkwood structures student advising using a nationwide initiative called <u>Guided Pathways</u>, which is designed to group similar programs and streamline the registration process. Advisors serve an important role in supporting students through each pillar of the Guided Pathways framework. They serve as a source of continuity for the student upon entry to completion. Forming a supportive relationship with advisees is core to helping students access the needed resources at the appropriate time to choose a path, stay on the path, and ensure the student is learning.

Each student will be assigned an academic advisor during <u>New Student Orientation</u>, which occurs typically during the summer. (New student orientation is mandatory for all incoming students.)



# WHAT OUR GRADUATES GO ON TO DO

#### **General Contractor**

Run your very own construction company

#### **Jobsite Foreman**

Manage one specific job for a company from the field

#### **Facilities Manager**

Work with a company to plan and maintain their built property

#### Construction Technologist

Integrate and streamline new tech into construction practices

#### **Project Manager**

Oversee multiple complex jobs for large companies and organizations

#### **Construction Estimator**

Find the cost of a building proposal and ways to control it

#### Material Sales/Marketing Work with a manufacturer or dealer to supply area companies

#### Teacher/Professor Work at the high school or college level to educate future professionals



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# rate after graduation.

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# **CONSIDERING A 4-YEAR DEGREE?**

As a community college, Kirkwood does not offer advanced degrees. BUT, we have pathways in place with some partner institutions who do.

For a **Bachelor of Construction Management degree**, students may go on to the <u>University of Northern Iowa</u> for an additional 2 years.

Another option for a **Bachelor of Construction Management degree** is <u>Dunwoody College in Minneapolis</u> for an additional 2 years (in person or remotely!).

For a **Bachelor of Science degree in Civil Engineering**, students may go on to the <u>University of Iowa</u> for approximately 2.5 years.

Kirkwood is an excellent way to jump-start a bachelor's degree!





## **START TIMES**

The school year at Kirkwood ordinarily begins with fall semester in late August. This is when the majority of our students begin their first year.

However, we know life can be funny and it doesn't always follow deadlines we set. If for some reason you want to enroll in the C.M. program but find you cannot start in the fall, we offer the option to start your classes in spring semester in late January. Contact your advisor about starting in the spring to develop a specialized academic plan.

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# THE 1-YEAR "A.C.E. DIPLOMA"

A.C.E. stands for "Architecture, Construction, and Engineering." There is a movement in the industry to better recognize the relationships between these three fields to help make better buildings.

The A.C.E. diploma is awarded at the end of the first year for Construction Management and Architectural Technology students, signifying that students have a grasp on the fundamentals of design and construction and how they relate to each other.





# **LESS TIME ON CAMPUS...**

Construction Management students are often busy people. Full- or part-time jobs, childcare, and long commutes are just a few of the things that we see our students juggling alongside their classes. The C.M. faculty want our students to have rewarding lives and, if possible, jobs where they put the skills they learn to use immediately. We try to minimize student time spent on campus in two ways:

#### **#1 – Compressed Schedules**

To support students working part time, the Construction Management program tries to schedule C.M. technical courses only two days a week depending on the semester. In addition to construction technical courses, students are required to take four general education courses throughout the two years in the program. Work with your academic advisor to choose general education courses that allow you to optimize your time on campus and at work.



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#### **#2 – Second-Year Class Options**

Beginning in the second year of the program, students can take Construction Management courses on campus or remotely (a mix of online and WebLive courses). Online courses can be taken anytime, anywhere, and do not require meeting for class at all, as they are done on the student's schedule. WebLive courses have scheduled lecture times where students interact with the instructor and peers via Zoom or a similar software. Both remote options provide students with flexibility as to how much time they spend on campus.



# **INDUSTRY CREDENTIALS**

The Construction Management program has imbedded industry credentials in the curriculum. When they graduate, students receive certification in:

**OSHA 10** for elementary jobsite safety

First Aid related to the OSHA certification above

**LEED Green Associate** for sustainable application of materials and best building practices

**Procore Student Certification** for software-specific training with cutting-edge management tools





# WHAT TO EXPECT

CLASSES REQUIREMENTS OPPORTUNITIES



# WHAT TO EXPECT: YEAR 1 CLASSES

#### Quarter 1 (First 8 Weeks of Fall)

Work Based Learning (2 credits) This course gives students hands-on experiences with real-world applications, featuring ACE professionals.

Architectural Plans and Specs (3 credits) Learn to read blueprints and specification books for residential and commercial projects of various sizes.

### **Construction Safety (1 credit)**

Prepares students to recognize and be knowledgeable in keeping a safe work environment.

Quarter 2 (Second 8 Weeks of Fall)

### **Architectural Modeling (3 credits)**

It is better to make mistakes digitally than in the field. Learn 3D modeling software and use it to assemble buildings and systems.

### **Construction Lab (3 credits)**

Put your safety gear on and get to work. Learn job safety, tool usage, and wood framing techniques building full-size mock-ups in a lab setting.

### Math Class (3 credits) – All Semester

Students will test into one of several courses designed to provide the math credit required for graduation and have relevance within our industry.

Note: There are general education (gen ed classes or electives) that are also required. Students have a wide variety of courses to choose from and have flexibility about when and how to take them.



# WHAT TO EXPECT: YEAR 1 CLASSES

#### Quarter 3 (First 8 Weeks of Spring)

### **Construction Materials Science (3 cr.)**

Learn about the materials and products used in construction and explore their design, application, and limitations.

### **Construction Estimating I (3 credits)**

Learn to provide a reliable estimate of a building's cost by breaking it down into its component systems and organizing cost data.

#### Quarter 4 (Second 8 Weeks of Spring)

### **Structures and MEP (3 credits)**

This stands for mechanical, electrical, and plumbing. Learn about the systems that make buildings function and work hands-on installing them.

### **Environmental Studies (3 credits)**

Examine how the buildings we construct change and interact with the environment around us.

Note: There are general education (gen ed classes or electives) that are also required. Students have a wide variety of courses to choose from and have flexibility about when and how to take them.



# **CAREER DEVELOPMENT**

The Construction Management program requires students to work a professional, paid internship at a company of their choosing, usually in the summer between years 1 and 2. This is an excellent opportunity for students who do not have professional contacts nor experience to enter the working world. Many of our students end up working for their internship companies after graduation.

There are several steps leading up to this internship beginning with a Work-Based Learning course taken in the first quarter of the first year, and a Job Seeking Skills course, which is taken (remotely) during winter break of the first year. These classes are designed to guide students through the process of résumé writing, looking for jobs, matching their skills and wants to an employer, interviewing, and even negotiating salary.





# WHAT TO EXPECT: YEAR 2 CLASSES

#### Quarter 1 (First 8 Weeks of Fall)

#### **Construction Documentation (3 credits)**

Take an advanced look at drawings and specifications as they relate to codes, regulations, contracts, and other facets of the construction process.

### **Principles of Supervision (3 credits)**

Discover skills to help you manage people and projects. This course provides knowledge about the role and responsibilities of a supervisor.

#### Quarter 2 (Second 8 Weeks of Fall)

#### **Pre-Construction Services (3 credits)**

Learn how to bid a job, schedule a job, procure materials and talent for that work, and everything else that must happen before construction begins.

### **Advanced Estimating (3 credits)**

Learn estimation-specific software to provide more detailed, thorough, and accurate cost analysis of larger, more complex projects.

Note: There are general education (gen ed classes or electives) that are also required. Students have a wide variety of courses to choose from and have flexibility about when and how to take them.



# WHAT TO EXPECT: YEAR 2 CLASSES

#### Quarter 3 (First 8 Weeks of Spring)

#### **Construction Services (3 credits)**

Learn what it means to manage a construction project from the first shovel in the ground to the cutting of the ribbon at the end. Quarter 4 (Second 8 Weeks of Spring)

#### **Integrated Project Management (3 cr.)**

Become familiar with the Project Management Institute and their techniques and tools, and prepare to test for the CAPM credential.

#### **Construction Capstone (3 credits)**

The final course in the series is an opportunity to demonstrate the fundamentals of the industry from start to finish on a mock project.

#### **Sustainable Construction Science (3 credits) – All Semester**

Examine the process of construction from beginning to end with an emphasis on environmentally sound materials and best building practices.

Note: There are general education (gen ed classes or electives) that are also required. Students have a wide variety of courses to choose from and have flexibility about when and how to take them.



# **REQUIRED MATERIALS: LAPTOP**

A laptop computer is required that meets certain specifications in order to run the software that we use. We have arranged for EagleTech (in the Kirkwood Bookstore) to stock a model that is competitively priced, meets our expectations, and comes with the required software.

The recommended laptop for the 2022-2023 school year is the Dell G5-5515. Refer to the EagleTech website for details.





# **REQUIRED MATERIALS: LAPTOP**

Frequently asked questions:

### Do I have to buy this from the Kirkwood Bookstore?

No, but we encourage it. PCs purchased from other vendors may not be eligible for tech support and service from EagleTech, which is convenient and often free. Also, the Bookstore has the required software bundled. (Note: We receive no commission from sales at the Bookstore.)

# Can I use the computer I already own or buy a different model?

Yes, but only if you judge the specs on that machine to be comparable (or better) than what we have recommended. We cannot be responsible for compatibility or performance issues that may arise from use of another machine, and we cannot provide tech support.





# **REQUIRED MATERIALS: LAPTOP**

Frequently asked questions (continued):

### Can I use a Mac or Linux PC?

Yes, but all of our classes are designed for Windows. If you use another OS it is your responsibility to manage any incompatibility issues that may (will) arise.

### Can I install my own software on this machine?

Yes, the computer belongs to you; you own it!

### Can I use financial aid to buy this computer?

Yes, after a certain date in the summer. Contact the <u>Kirkwood Bookstore</u> for details.





# **REQUIRED MATERIALS: OTHER**

### **Personal Protective Equipment (PPE) required:**

- Hard hat
- Safety glasses
- High-visibility safety vest

### **Computer equipment required:**

- <u>Architect's scale</u>
- A 3-button mouse (button #3 is usually a scroll wheel)

#### **Construction tools and accessories** (not required, but a good idea):

- Tool belt
- Hammer
- 25-foot tape measure





# **OPPORTUNITIES: STUDY ABROAD**

Kirkwood offers a <u>variety of summer travel programs</u>, ranging from two weeks to all summer long. Each has a different destination and a different focus. Scholarships are available. C.M. students in particular may be interested in the <u>German Building program</u>, led by our faculty, which visits notable cities, buildings, manufacturers, and showrooms throughout northern Germany over two weeks.





# **OPPORTUNITIES: COMPETITIONS**

Kirkwood fields interdisciplinary teams of students to participate in academic competitions during the school year. These are a great opportunity to sharpen skills, travel, get new experience, and brag about it on a résumé. One example is the <u>National Association of Home Builders (NAHB) Housing Contest</u> in which students compete in teams to design, draft, render, estimate, and schedule the construction of a new home. The finals are held regularly at the <u>International Builders' Show</u> which alternates between Las Vegas and Orlando every year.





# **FOR MORE INFORMATION**

Follow the links below for more details...

**Construction Management Program Page** 

**Study Abroad** 

**Financial Aid** 

Job Placement/Internship

**Learning Accommodations** 





# **FOR MORE INFORMATION**

If you are still uncertain of what you want to major in, need more information about the professions mentioned, or just want to explore career possibilities, we have a great resource for you ...

#### www.explore-ace.org

ACE is a nationwide initiative focusing on educating future design and construction professionals at the high school and college levels. Check them out, take a personality test, look at day-to-day examples of careers, and see where you fit into this industry!





# NEXT STEPS.

ARE YOU READY TO APPLY?



## **STEPS TO BECOMING A KIRKWOOD STUDENT:**

# Visit the <u>Kirkwood Admissions website</u> for a detailed, step-by-step guide to application and enrollment.

#### Two quick notes about the application process:

This presentation fulfills the program conference step. Please fill out the program conference survey located at the <u>Construction Management</u> <u>program website</u>. This will tell us about you and put you on our list of interested students. After that, this step is completed!

Please do not forget the scholarship application step. Kirkwood has many scholarships available based on need, academics, and other things you may not think about, like your major and interests, and every year some scholarships go un-awarded because of lack of applications. To apply, go to www.kirkwood.edu/scholarships.





## **THANK YOU**

This completes your Program Conference presentation. Please fill out the program conference survey and you are set. We are excited to be building our industry in eastern lowa and we hope you can join us.

#### WE WILL SEE YOU IN CLASS!

