

2019 Student Competition Application

Construction and Facilities Management

*This application is due March 29th by 4:00pm in 230 SNLB and must be **legible** for consideration.*

Personal Information

Name (Last, First)	
Phone (cell)	
Email	
CAEDM Username	

	Male <input type="checkbox"/>	Female <input type="checkbox"/>
Student ID#		
Shirt Size	Neck _____	Sleeve Length _____
T-Shirt Size	S	M
	L	XL
	XXL	

Honor code or academic holds, may prevent you from competing on the teams. Please check with Sister Terry if you have questions concerning this.

-Competition Team Selection-

Rank the 3 competitions in which you would most like to participate with 1 being the most preferred. Additional information regarding the various competitions is included with the supplemental addendum (sponsor videos also available at asc67.org).

NAHB		ASC Design Build		ASC Project Management	
ASC Commercial		ASC Heavy Civil		ASC Preconstruction	
ASC Mixed-Use		ASC Sustainable Building		Anywhere there's a spot!	

* NAHB = National Association of Home Builders, ASC = Associated Schools of Construction

Would you consider being an alternate for a team? Yes No

REQUIREMENTS: 1) Students participating in competitions will be required to make a non-refundable contribution as follows: **NAHB = \$250, ASC = \$200** 2) Students must register for CFM 317R during Fall semester, 3) Students must participate in the CM Challenge during Fall semester.

-Educational Experience-

Please check the box on the left if you have taken or are currently taking the class. For all classes you have completed, put the grade you received in the right column. If you are currently taking the class, leave the "Grade" box blank.

Course	Grade
<input type="checkbox"/> CFM 155 Construction Modeling	
<input type="checkbox"/> CFM 241 Electrical Systems	
<input type="checkbox"/> CFM 311 Quantity Takeoffs	
<input type="checkbox"/> CFM 320 Mechanical Systems	
<input type="checkbox"/> CFM 335 Soils & Equipment	
<input type="checkbox"/> CFM 345 Safety	
<input type="checkbox"/> CFM 385 Construction Law	

Course	Grade
<input type="checkbox"/> CFM 411 Pre-Construction Services	
<input type="checkbox"/> CFM 412 Scheduling	
<input type="checkbox"/> CFM 415 Project Management	
<input type="checkbox"/> CFM 426 Real Estate	
<input type="checkbox"/> CFM 445 Company Management	
<input type="checkbox"/> CFM 460 Sustainable Building	

-Areas of Personal Expertise-

Please check the box next to any skills or areas of expertise where you feel the most confident.

<input type="checkbox"/> Estimating	<input type="checkbox"/> Scheduling	<input type="checkbox"/> Design	<input type="checkbox"/> Project Management
<input type="checkbox"/> Organizational/Management	<input type="checkbox"/> Land Dev/Real Estate	<input type="checkbox"/> Bidding/Contracts	<input type="checkbox"/> Building Info Modeling

-Work Experience-

Please write in the box below any personal work experience you have that has prepared you for the courses or team for which you are applying.

-Computer Skills-

Please write in the box below all computer software of which you have mastery. This includes CFM software, graphics design, 3D imaging, etc. Be prepared to show an example if requested.

-Additional Information-

Please write in the box below any additional information about yourself that would set you apart as a candidate for the team for which you are applying. Please explain why you should be considered.

Employers will often contact the School of Technology and request the contact information for a student. Federal Law (FERPA) does not allow us to release that information without your permission. Please initial in the boxes below next to the information you give permission to be released to an employer:

	Phone Number
	Email Address

X

Student Signature

Student Competition Descriptions

Construction and Facilities Management

-National Association of Home Builders Student Competition-

The annual NAHB Student Competition is one of the highlights of the International Builders' Show. The competition gives students the opportunity to apply skills learned in the classroom to a real construction company by completing a residential development management project/proposal. Proposals are submitted to a group of construction company executives who act as judges. During the convention, students defend their proposals to the judges in front of an audience.

-Commercial Competition-

This competition focuses on large, high-profile commercial construction projects. The sponsor has student teams approach the problem statement as though they employees presenting their construction plan to their management support team. As pseudo-employees, the student teams are asked to review the project as a general contractor who is going to be self-performing all concrete scopes of work. In order to be successful, student teams need to have a good, general understanding of the general contractor's role in commercial construction. They also need to be able to generate a GMT estimate, a detailed concrete estimate, and an accurate CPM schedule.

-Mixed-Use Competition-

This competition focuses on mixed-use construction projects, typically including commercial and residential components. Student teams approach the problem statement as though they are contractors submitting a proposal to win a job. The teams are asked to respond to an actual Request for Proposals, typically requiring them to create a project-specific schedule, estimate, project management plan and safety management plan. In order to be successful, student teams need to be able to think on their feet and have a good understanding of the general contractor's role in mixed-use construction.

-Design Build Competition-

The Design Build problem focuses on design, planning, and execution processes of large, commercial construction projects. Competing in this problem provides an amazing opportunity for the students to collaborate, lead, conduct presentations, and learn from key industry professionals. The program is designed to challenge the students to utilize their knowledge to solve complex issues in a real-world setting. Teams will be exposed to a number of topics related to the design-build processes, with an emphasis on the general contractor's perspective. These topics can range from design issues, client changes, site logistics, estimating, scheduling, safety, quality, and many others. While we recognize that not all schools have an architectural program or a design focus, we do expect the design to be a part of the presented solution, it just is not the emphasis of the competition.

-Heavy Civil Competition-

The Heavy Civil problem focuses on Earth-Moving, Transportation, Roadways, and Underground Utilities. Skill-sets needed: Working knowledge of safety and civil construction, scheduling, risk evaluation and risk management, heavy equipment capabilities, production rates, labor rates, managing logistics, developing access and interest, geotechnical conditions, remote work, and marine work. Typical Outcomes: Bidding work, estimating work, proposal preparation, problem-solving, scheduling, and risk management. Competition is the first time students can feel the real-world pressure of turning in and inventing an estimate, something you cannot create in a classroom.

-Sustainable Building Competition-

This problem looks at current, sustainable trends, certifications, and strategies utilized in the design and construction process to create buildings that do less environmental harm and more environmental good. The problem typically highlights specific building components such as energy and water consumption and materials sourcing and toxicity. It pushes student teams to research these components and provide design and construction solutions that help a project meet its goals. Skillsets Needed: A baseline understanding of green-building certifications, sustainable building strategies, cost estimating, materials procurement, and typical construction practices. Typical Project Outcomes: in-depth knowledge of green-building certifications, sustainable building strategies, life cycle costing, sustainable materials procurement, and sustainable construction practices.

-Preconstruction Competition-

The road to the successful delivery of a project begins with solid preconstruction planning. Owners, designers, and contractors all must work hand-in-hand during the preconstruction planning efforts to clearly define conditions of satisfaction surrounding the project budget, schedule, and quality expectations. The objective of this problem is to enhance the students experience with the everyday occurrence of preconstruction tasks in today's construction environment. The problem proposed will be typical to the required task performed by a contractor during the preconstruction phase of the project. Typical tasks may include the proper selection of your construction team, risk analysis, contracts, estimating, constructability and review, scheduling, safety, site logistics, contracting means, and methods.

-Project Management Competition-

The project management problem requires a student to evaluate a potential construction project for risk and reward ultimately deciding whether it is worth pursuing. As competitors, students will act as a proposal team addressing real-life issues such as cost, scheduling, contracts, and technical challenges. These challenges will be tailored specifically to projects related to healthcare, life sciences, higher education, commercial, and advanced technology. The problem is modeled on an actual project experienced by the sponsor. There will be curveballs and real-life construction challenges requiring the students to think on their feet and develop creative solutions.