



Metal Building Manufacturers Association (MBMA)

1300 Sumner Avenue
Cleveland, OH 44115-2851
www.mbma.com

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Contact: Dan Walker, Associate General Manager
Phone: 216.241.7333
Email: mbma@mbma.com

MBMA Announces 2017 Capstone Program College Participants and Summarizes 2016 Program

CLEVELAND, OHIO – www.mbma.com: The Metal Building Manufacturers Association (MBMA) announced the newest participants in its capstone course program. This program enables colleges and universities to work with MBMA and its member companies to offer a Senior Design Course focusing on metal buildings.

The 2017 Capstone Program participants are:
Dr. John Bowders, University of Missouri
Dr. Norb Delatte, Oklahoma State University
Dr. Justin Marshall, Auburn University
Dr. Philip Parker, University of Wisconsin-Platteville
Dr. Michael Rodgers, Georgia Tech University

This groundbreaking educational initiative, now in its second year, partners the metal building industry with undergraduate engineering and architectural faculty and students. Each senior design class undertakes a required capstone course, which exposes students to everyday design and engineering challenges to help prepare them for future engineering practices in accordance with the requirements of the Accreditation Board for Engineering and Technology (ABET). The new MBMA curriculum model provides students with real-world specifying experience for metal building projects. Participants also study other aspects of projects involving metal buildings, including steel building design, foundation design, and in some cases site work. The instructors and classes collaborate with representatives from MBMA member companies, often going on plant tours to see the entire system manufacturing process up close.

“While metal buildings account for over 40 percent of all nonresidential, low-rise construction in the United States, engineering and architecture students are not typically introduced to this form of construction as part of their formal education,” says W. Lee Shoemaker, Ph.D., PE, MBMA’s director of research & engineering. “Our intent for this capstone program is to go beyond a basic introduction to metal building systems and provide real-world exposure to metal building design and construction practices. This program will help the students to be well prepared for what they will encounter in their daily practice.”

MBMA also released a summary of the 2016 capstone courses which were introduced at five universities across the country. These classes each took a different approach depending on school requirements and needs, but all courses provided students with practical training and MBMA member expertise.

At Auburn University, the class was led by Dr. Justin Marshall. This one-semester, three-credit-hour course had students designing a metal building where they were responsible for creating the footings and completing a code verification for the design. The course at Bucknell University, taught by Dr. Ronald Ziemian, was spread over two semesters. Students wrote a project proposal and presented it to the class at the end of the fall semester; in the spring, participants divided into two teams to design what they proposed—each team working on a different part of a manufacturing plant construction project.

Cleveland State’s senior design course, taught by Dr. Mehdi Jalapour, was also conducted over two semesters. The first semester focused on preliminary designs and data collection, preparing the students for the multi-disciplinary design project in the spring that brought together many aspects of civil engineering. At the University of South Alabama, the two-semester senior design course was led by Dr. John Cleary. The first semester’s lecture-based class was followed with the design process where teams looked at two alternatives for a strip mall structure, one composed of structural steel and the other a metal building system.

At Old Dominion University in Virginia, a unique challenge yielded something that looks a little different in the class taught by Dr. Michael Seek. Many off-campus students in this two-semester course participated online, which required an approach focused on individual projects and web-based information. Technical modules were provided for the students that related to the specific topics needed to complete the process.

“The first year of the capstone program exceeded our expectations,” says MBMA Associate General Manager Dan Walker. “Students gained a great deal of experience, and our members were very generous with their time. MBMA members provided the students some unique insights into our industry. We are confident the newest participants will be just as successful with their courses. Moving forward, we are looking to build upon the initial accomplishments of the program. We hope to work with even more colleges and universities, exposing more engineering and architecture students to metal buildings.”

For more information about this capstone course program or other MBMA education initiatives, please contact Lee Shoemaker at mbma@mbma.com or 216.241.7333.

Founded in 1956, MBMA serves manufacturers and suppliers as it works to promote the metal building systems industry. For over 60 years, its membership has supplied high-quality buildings for use in commercial, retail, office, industrial, institutional and other end-uses. The association provides a wealth of useful information on its website, www.mbma.com, for anyone who works with or is interested in metal building systems. It includes technical materials and design guides.

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