



Capstone Design

CONFERENCE 2022

JUNE 6–8, 2022 ▶ DALLAS, TEXAS

Panel Information



Panel 1A: Monday, June 6, 10:30 am – 12:00 pm
DGA 1.102A

Title: Finding And Maintaining Remote Client Partnerships

Shared Notes Link: Click [here](#)

Facilitator: Keith Stanfill – University of Tennessee, Knoxville

Panelists:

1. Cassie Bowman – Arizona State University
2. Jenny Retherford – University of Tennessee, Knoxville
3. Shraddha Sangelkar – Rose-Hulman Institute of Technology

Description: Colleges in remote parts of the US or those who want to collaborate internationally need to find clients who can work well with a capstone program even at a distance. The panelists will share their ideas on how to successfully manage remote clients.



**Panel 1B: Monday, June 6, 10:30 am – 12:00 pm
DGA 1.102B**

Title: Written/Oral Communication in Capstone

Shared Notes Link: Click [here](#)

Facilitator: Bridget Smyser – Northeastern University

Panelists:

1. Marie Paretti – Virginia Tech
2. John Parmigiani – Oregon State University
3. Hugh McManus – Northeastern University
4. Alexis Gillmore – University of Tennessee, Knoxville

Description: Capstone is an excellent opportunity to assess students' ability to communicate their designs and satisfy related ABET criteria. The panelists will share their strategies for teaching and assessing these important skills.



Panel 1C: Monday, June 6, 10:30 am – 12:00 pm
DGA 1.102C

Title: Capstone 101

Shared Notes Link: Click [here](#)

Facilitator: Todd Polk – University of Texas at Dallas

Panelists:

1. Elizabeth DeBartolo – Rochester Institute of Technology
2. Bahram Nassersharif – University of Rhode Island
3. William Endres – Michigan Technological University

Description: This panel is targeted for new instructors, those developing new programs, and anyone who would like to benefit from the shared wisdom of veteran instructors. Learn about best practices from people who have been there.



Panel 2A: Monday, June 6, 2:30 – 4:00 pm
ECSS 2.410

Title: Managing Conflict

Shared Notes Link: Click [here](#)

Facilitator: Marie Parette – Virginia Tech

Panelists:

1. Olga Pierrakos – Wake Forest University
2. Hadar Ziv – University of California, Irvine
3. Daria Kotys-Schwartz – University of Colorado, Boulder

Description: This panel will allow attendees to learn different approaches to managing conflict between team members, between students and faculty, and other situations where conflict threatens a successful capstone experience.



Panel 2B: Monday, June 6, 2:30 – 4:00 pm
ECSS 2.412

Title: 101 Ways to Structure a Capstone Course (give or take)

Shared Notes Link: Click [here](#)

Facilitator: Bahram Nassersharif – University of Rhode Island

Panelists:

1. Robert Hart – University of Texas at Dallas
2. Abdelrahman Suaib – Arizona State University
3. Katherine Breeden – Harvey Mudd College
4. Samuel Malachowsky – Rochester Institute of Technology

Description: Speak to 10 different capstone instructors and you will probably find 10 different ways to administer, organize, and assess a capstone design course. Attendees will learn about a variety of course structures and their pros and cons.



Panel 2C: Monday, June 6, 2:30 – 4:00 pm
ECSS 2.415

Title: After Capstone: What Happens to Projects After the Course is Over?

Shared Notes Link: Click [here](#)

Facilitator: Jay Goldberg – Marquette University

Panelists:

1. Elizabeth DeBartolo – Rochester Institute of Technology
2. Jeff Culhane – Precision Medical Products
3. Bridget Smyser – Northeastern University

Description: After the excitement of final presentation day, what happens to all the projects students worked so hard on? Do they turn into businesses? Sit on a shelf? And when projects don't have a final destination with a client, many of us are left with a pile of prototypes that need to go...somewhere. Panelists will share different options and the pros and cons they've experienced with each along the way.



Panel 2D: Monday, June 6, 2:30 – 4:00 pm
ECSS 2.102

Title: ABET and Assessment

Shared Notes Link: Click [here](#)

Facilitator: Nathan Kathir – George Mason University

Panelists:

1. Rachel Horenstein – University of Denver
2. Joshua Gargac – Ohio Northern University
3. Gregory Watkins – California State University Chico
4. Alexis Gillmore – University of Tennessee, Knoxville

Description: Capstone Design is required for ABET accreditation in most engineering programs. This panel will discuss ideas for assessing capstone projects in ways that will satisfy the needs of both ABET and the programs themselves.



Panel 3A: Tuesday, June 7, 2:00 – 3:30 pm
ECSS 2.410

Title: Intro to Capstone Design Research

Shared Notes Link: Click [here](#)

Facilitator: Elizabeth DeBartolo – Rochester Institute of Technology

Panelists:

1. Kris Jaeger-Helton – Northeastern University
2. Susannah Howe – Smith College
3. Brian Novoselich – United States Military Academy (West Point)

Description: Research into capstone design is what brought us all here, but many attendees may be just starting their work on this topic. Learn from established researchers as they discuss best practices, ideas for developing research topics in this field, and potential funding sources to tap into.



Panel 3B: Tuesday, June 7, 2:00 – 3:30 pm
ECSS 2.412

Title: Industry-Informed Capstone: Preparation for Professional Practice

Shared Notes Link: Click [here](#)

Facilitator: Keith Stanfill – University of Tennessee, Knoxville

Panelists:

1. Jay Goldberg – Marquette University
2. Scott Shaffar – San Diego State University
3. Robin Ott – Virginia Tech

Description: Capstone instructors have to carefully balance and sometimes modify how current industrial practices are implemented in their courses. This panel will share ideas on introducing/adapting industrial practices such as ISO standards, stage-gate development processes, and professional skills for capstone design to better prepare students to work collaboratively in their future careers.



Panel 3C: Tuesday, June 7, 2:00 – 3:30 pm
ECSS 2.415

Title: Establishing A Safety Culture in Capstone

Shared Notes Link: Click [here](#)

Facilitator: Bridget Smyser – Northeastern University

Panelists:

1. Michelle Rinehart – University of Texas at Dallas
2. Elizabeth Meier – University of Florida
3. Mike Kinsinger – Smith College

Description: Capstone projects are often breaking new ground and stretching student’s abilities. However, as students rush to do more in limited time accidents can happen. This panel will share ideas for safety oversight in capstone design as well as how to get students, advisors, and others to develop a shared safety culture.



Panel 3D: Tuesday, June 7, 2:00 – 3:30 pm
ECSS 2.102

Title: Student Mental Health / Difficult Conversations

Shared Notes Link: Click [here](#)

Facilitator: Shraddha Sangelkar – Rose-Hulman Institute of Technology

Panelists:

1. Olga Pierrakos – Wake Forest University
2. Evan Alexander – Northeastern University
3. Sindia Rivera-Jiménez – University of Florida
4. Camisha Kibble – University of Texas at Dallas

Description: COVID disruptions have caused unprecedented levels of stress in our students, and mental health struggles have increased even as students have returned to campus. Professional and student panelists will share their thoughts on managing this thorny problem.



Panel 4A: Wednesday, June 8, 9:00 – 10:30 am
ECSS 2.410

Title: Project Management and Individual Accountability

Shared Notes Link: Click [here](#)

Facilitator: Kris Jaeger-Helton – Northeastern University

Panelists:

1. Dustin Rand – University of Vermont
2. Edward LaTorre-Navarro – University of Florida
3. Robin Ott – Virginia Tech
4. Joseph Deneke – George Mason University

Description: There are many different ways to teach students to manage their projects, and there are challenges to making sure that all team members are contributing. Panelists will share their methods for teaching and assessing the ability of teams and individual members to manage their project tasks.



Panel 4B: Wednesday, June 8, 9:00 – 10:30 am
ECSS 2.412

Title: Industry Partnerships: Working with the Client, Coaching the Client, Managing Client Expectations

Shared Notes Link: Click [here](#)

Facilitator: Colleen Coxe – Harvey Mudd College

Panelists:

1. Russell Marzette – Ohio State University
2. Stephen Arce – Florida A&M University/Florida State University
3. Jim Hartman – University of North Carolina, Charlotte

Description: Industry partners supply project ideas, subject matter expertise, and financial support to capstone design programs, but managing the interactions between the client, the students, and the instructors requires work. This panel will share best practices for successful partnerships with industrial sponsors.



Panel 4C: Wednesday, June 8, 9:00 – 10:30 am
ECSS 2.415

Title: Community Engagement and Service (Including Non-Profit)

Shared Notes Link: Click [here](#)

Facilitator: Rod Wetterskog – University of Texas at Dallas

Panelists:

1. Jenny Retherford – University of Tennessee, Knoxville
2. Elizabeth Meier – University of Florida
3. Sarah Brownell – Rochester Institute of Technology

Description: Working with community groups and non-profit organizations can enrich the capstone experience, providing mutual benefits to students and community partners. This panel will share ideas on how to find these types of projects, how to scope them, potential changes needed to curriculum and mentoring, and how to manage them for successful outcomes.



Panel 4D: Wednesday, June 8, 9:00 – 10:30 am
ECSS 2.102

Title: A Cornucopia of Capstone Course Challenges

Shared Notes Link: Click [here](#)

Facilitator: Keith Stanfill – University of Tennessee, Knoxville

Panelists:

1. Todd Polk – University of Texas at Dallas
2. Aaron Rubin – Smith College
3. Jay Goldberg – Marquette University
4. Michael Hall – Rose-Hulman Institute of Technology

Description: This panel will cover a variety of challenges that don't fit neatly into other categories, but still need to be solved.



Panel 5A: Wednesday, June 8, 10:45 am – 12:15 pm
ECSS 2.410

Title: Nifty Ideas and Surprising Flops

Shared Notes Link: Click [here](#)

Facilitator: Susannah Howe – Smith College

Panelists:

1. Kris Jaeger-Helton – Northeastern University
2. Alexis Gillmore – University of Tennessee, Knoxville
3. Jim Hartman – University of North Carolina, Charlotte
4. Allyson Gibson – Brigham Young University
5. Nathan Kathir – George Mason University
6. Samuel Malachowsky – Rochester Institute of Technology
7. Keith Stanfill – University of Tennessee, Knoxville

Description: This ever-popular session will feature very short presentations from capstone instructors showcasing ideas that were either a great success or an unexpected failure - or perhaps a bit of both! Come learn about new ideas or propose your own (time permitting at the end).



Panel 5B: Wednesday, June 8, 10:45 am – 12:15 pm
ECSS 2.412

Title: Multi or Interdisciplinary Capstone

Shared Notes Link: Click [here](#)

Facilitator: Sarah Brownell – Rochester Institute of Technology

Panelists:

1. Noe Vargas-Hernandez – University of Texas Rio Grande Valley
2. Cassie Bowman – Arizona State University
3. Dean Nieuwma – Colorado School of Mines

Description: Real world problems often involve multiple disciplines to solve but managing logistics, expectations, and requirements can be difficult. Panelists will share examples of their own multi- or interdisciplinary programs and how they overcome the challenges associated with these programs.



Panel 5C: Wednesday, June 8, 10:45 am – 12:15 pm
ECSS 2.415

Title: Teambuilding and Team Dynamics

Shared Notes Link: Click [here](#)

Facilitator: Olga Pierrakos – Wake Forest University

Panelists:

1. Shraddha Sangelkar – Rose-Hulman Institute of Technology
2. Jesse Pappas – Wake Forest University
3. Luke Nogales – New Mexico State University
4. Nicholas Guidoboni – Northeastern University

Description: Forming, storming, norming, and performing – we want all our teams to successfully complete this process. This panel will share ideas from instructors and a recent capstone student on how to form teams and help them work together successfully.



Panel 5D: Wednesday, June 8, 10:45 am – 12:15 pm
ECSS 2.102

Title: Entrepreneurial Mindset

Shared Notes Link: Click [here](#)

Facilitator: Matthew Swenson – University of Idaho

Panelists:

1. Jessica Fick – University of Wisconsin, Platteville
2. David Ochi – University of California, Irvine
3. Laura Stoy – RocketJudge
4. Spencer Ciammitti – University of Arizona

Description: More and more programs are including entrepreneurial thinking as one of their goals. This panel will discuss ways to nurture the entrepreneurial mindset in capstone design courses.