



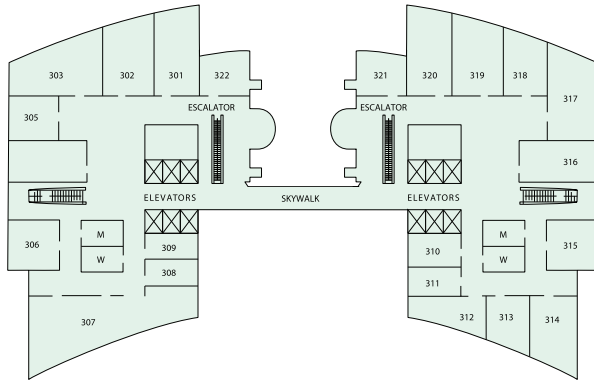
ABET SYMPOSIUM

Hollywood, Florida
April 14-15

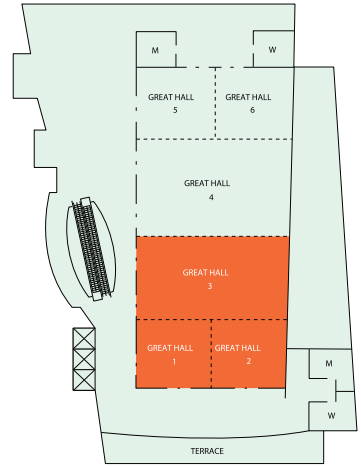
2016

TECHNICAL EDUCATION
BUILDING A BETTER WORLD

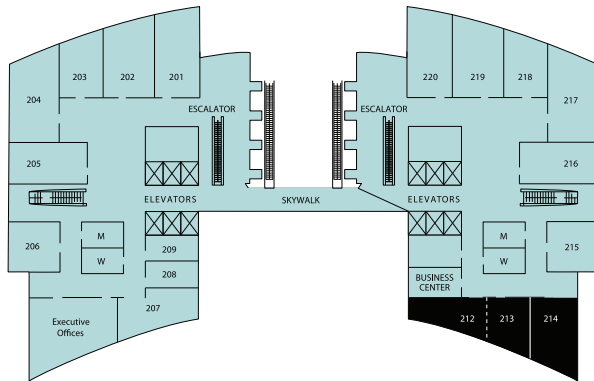
RESORT THIRD FLOOR



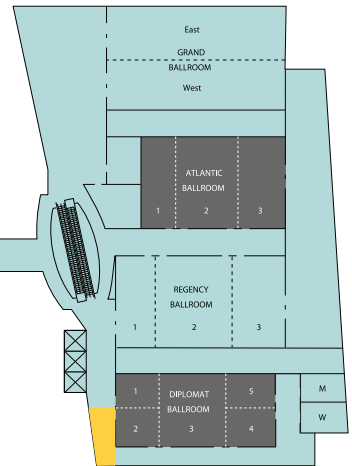
CONVENTION CENTER THIRD FLOOR



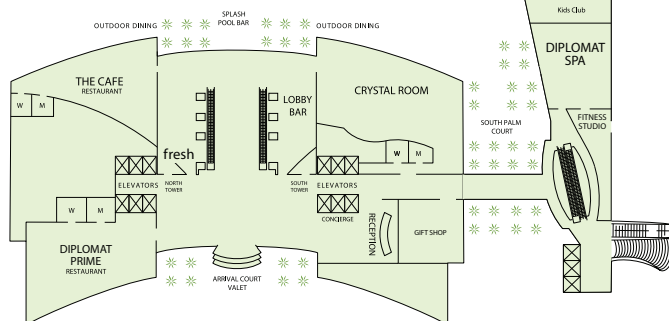
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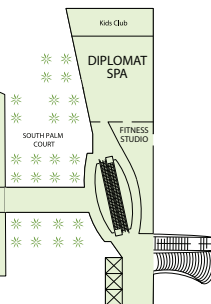
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RESORT LOBBY LEVEL



CONVENTION CENTER LOBBY LEVEL



- PLENARY SESSIONS/
MEALS
- BREAKOUT ROOMS
- SELF-STUDY
REPORT ROOM
- DISCUSSION DEN

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WELCOME

From the President & Executive Director

Welcome to the 2016 ABET Symposium.

As we gather in Hollywood, technical educators confront the proverbial “best of times and worst of times.” Throughout the world, cities, regions and entire nations increasingly view universities and colleges as tools of competitive advantage, and expect our institutions to leverage teaching, technical assistance and breakthrough research in new—and sometimes unconventional—ways to address a wide range of compelling technical, social and economic needs. We believe technical programs are uniquely positioned to lead university response to many of these issues.

At the same time, a growing chorus of critics in some locations—especially the United States—question the value of a college degree, while public policymakers become increasingly tight-fisted in providing the state and federal funds needed for students and higher education institutions alike to realize their considerable potential.

Many months ago, this paradox caused us to select “Technical Education Building a Better World” as the 2016 program theme. At the time, we could not imagine impending headlines that spun around the globe about the Volkswagen emissions and Flint water scandals, or the reality that teams of engineering faculty and students from ABET-accredited programs would be at the center of revealing corporate, government and regulatory malfeasance. We are proud to present the faculty heroes from both of these incidents, and—even more importantly—contribute to the critical dialog about their lessons for other institutions and technical educators, no matter what your location, institutional mission or resource base may be.

(Continued)

WELCOME

From the President & Executive Director (cont.)

A year ago, Symposium participants told us to create better opportunities for discussion and interaction, with both speakers and other attendees. To that end, we are happy to introduce a new Symposium format: Discussion Dens. These smaller, more dynamic discussions are aimed at taking you from the conference room and into the open where people with shared interest, concerns and problem statements can join the conversation at any time. Details about the format and timing of these sessions can be found elsewhere in this program.

While working to bring new dimensions of learning to your Symposium experience, we haven't forgotten ABET's core purpose. If you are here to learn more about how to get your program accredited, becoming a Program Evaluator or reading our Self-Study reports, rest assured that you will find all the information you need.

We hope you are prepared for dozens of sessions and hours of content that you can take home and directly work into your program. We also urge you to take advantage of one of a kind access to ABET staff, Experts, and accreditation leadership.

As always, if you have any questions or suggestions, please make sure to come talk to us. We are happy to have you here and look forward to meeting and engaging with you over the next two days.



Best regards,

Lawrence G. Jones

Lawrence G. Jones, PhD
2015-16 ABET President

Michael K.J. Milligan

Michael K.J. Milligan, PhD, PE, CAE
ABET Executive Director
Chief Executive Officer

WELCOME

From the Mayor of Broward County

Greetings:

I am delighted to welcome you to share the warmth and beauty of Greater Fort Lauderdale—a place where happy meets go-lucky.

Broward County welcomes more than 15.3 million visitors to our area each year and offers the convenience of more than 600 daily flights to the Fort Lauderdale-Hollywood International Airport.

From the moment you arrive to our welcoming and diverse destination you are surrounded by blue skies, swaying palm trees, and welcoming, smiling faces. From the Blue Wave-certified beaches to the exotic Florida Everglades, also known as the “river of grass,” Greater Fort Lauderdale offers a water culture like no other destination. With more than 300 miles of inland waterways, the area’s winding canals provide spectacular views of mega-yachts and mansions, as well as “dock n dine” experiences via Water Taxi. Delegates will find designer outlet shopping, hip neighborhoods, music lounges, fashion, art and entertainment districts that merge for a thriving day-to-night cultural scene.

Water lovers will enjoy the 23 miles of Blue Wave-certified beaches that stretch enticingly along calm Atlantic waters—from Deerfield Beach in the north to Hollywood and Hallandale Beach in the south.

Kick off your shoes and slip into the beach chic vibe and discover endless experiences waiting to be unleashed.

On behalf of the more than 1.8 million residents of Broward County, it is with pleasure that I welcome the 2016 ABET Symposium to the area!

Sunny Regards,



A handwritten signature of Marty Kiar in blue ink. The signature is written in a cursive, flowing style and is set against a white background with a light blue border.

Marty Kiar
Mayor

2016 ABET SYMPOSIUM Program Committee



Jenny Amos
Program Assessment Track

Chief Academic Advisor and Director of Undergraduate Programs for the Department of Bioengineering at the University of Illinois at Urbana-Champaign.



Danielle Duran Baron
Communications and Marketing Chair

Senior Director, Global Communications and Marketing, ABET



Zenaida Gephardt
Global Accreditation Track

Assoc. Professor of Chemical Engineering, Department of Chemical Engineering, Rowan University



Charles Hickman
Program Chair

Managing Director, Constituent Relations, ABET



Daniela Iacona
Global Accreditation Track

Senior Manager, International Relations and Board Operations, ABET



Mike Leonard
Program Evaluator Development Track

Adjunct Director, Training, ABET; Senior Associate Dean and Professor, School of Engineering, Mercer University



Joe Sussman
Executive Sponsor

Chief Accreditation Officer and Chief Information Officer, ABET



Rochelle L. Williams
Symposium Chair

Director, Programs and Events, ABET

THURSDAY MORNING PLENARY SPEAKER**Francisco Marmolejo***Tertiary Education Coordinator, World Bank*

Francisco Marmolejo is the World Bank's Tertiary Education Coordinator, overseeing technical support for the Bank's regional and country-level projects in over 60 countries. This includes serving as Lead of the Global Solutions Group on Tertiary Education, which fuels the exchange of ideas between the Bank's more than 90 personnel engaged in higher education initiatives across the globe.

A leading voice in global education, he brings unique insight into the increasingly complex international demand for tertiary education and the economic forces driving it. Over the last 30 years, he has been to more than 70 countries working with universities, governments and global organizations on international education projects. Currently, he serves on advisory boards at World Education Services (WES), The Lumina Foundation for Education, and the Centre for Higher Education Internationalization at UNICATT in Milan, among others.

THURSDAY LUNCH PLENARY SPEAKER**Doug Melton***Director, Entrepreneurial Engineering Program,
The Kern Family Foundation*

Doug Melton, a director for the Entrepreneurial Engineering Program at The Kern Family Foundation, is passionate about developing engineering education that fosters an entrepreneurial mindset in students.

As globalization and the modern economy have created a wake-up call for undergraduate engineering programs around the world, Melton is helping them adapt their programs to meet emerging demands. He works closely with faculty and administrators at the universities that comprise the Kern Entrepreneurial Engineering Network (KEEN), which are dedicated to graduating engineers with an entrepreneurial mindset so they can create personal, economic, and societal value through a lifetime of meaningful work.

His first-hand experience comes from 17 years as a faculty member within the department of Electrical & Computer Engineering at Kettering University, and having served as the program director for Entrepreneurship Across the University.

FRIDAY LUNCH PLENARY

Great Minds, Greater Impact Plenary Discussion



Marc Edwards

Marc Edwards was part of a team that helped bring Flint's problems with lead, leaks and legionella to the world's attention after sampling in Flint homes starting April 2015. One year later, he is coming to the Symposium to talk about his experiences and perspectives.

Edwards is no stranger to using his technical expertise to protect the public welfare. In 2004, he began a crusade to prove that Federal agencies caused hundreds of Washington, D.C. children to become lead poisoned via exposure to contaminated drinking water—that assertion was vindicated by an award winning 2009 peer-reviewed paper and a 2010 Congressional Hearing into “scientifically indefensible” behavior by the U.S. Centers for Disease Control.

Marc Edwards is the Charles P. Lunsford Professor of Environmental and Water Resources Engineering at Virginia Tech, where he routinely teaches a course on engineering ethics and heroism that was co-developed with Dr. Yanna Lambrinidou.

Arvind Thiruvengadam



In 2012, **Arvind Thiruvengadam's** lab at West Virginia University was excited to be testing emission levels on a few diesel cars. They hoped at least three people would read the research. Three years later, their work uncovered the Volkswagen fuel emission scandal, a revelation affecting 11 million vehicles worldwide and rocking the largest automobile manufacturer on the planet.

More than three people have since read their research.

Arvind Thiruvengadam began his professional career as a research assistant at the Center for Alternative Fuels, Engines and Emissions (CAFEE) at West Virginia University in 2012. In 2013, he was appointed to Assistant Professor in the Mechanical and Aerospace Engineering Department, where he continues to work.

(Continued)

FRIDAY LUNCH PLENARY (cont.)

Great Minds, Greater Impact Plenary Discussion



Steve Cramer

Steve Cramer is a firm believer that giving academics the latitude to take risks on ideas and pursue the unknown is a dimension of higher education that we can't lose.

As the Vice Provost for Teaching and Learning at the University of Wisconsin-Madison, he works with academics across campus to advance the learning mission of the university. He was previously the associate dean of UW-Madison's engineering school and began his academic career in 1984, teaching Civil and Environmental Engineering. Since that time he has focused on pursuing new approaches to teaching and learning in addition to continuing to teach and research.

Cramer's scholarship is in structural and materials engineering. He is a fellow of the UW-Madison Teaching Academy and was awarded the Chancellor's Distinguished Teaching Award, the Tau Beta Pi National Mentor Award and the Champion Award for Advancing the Status of Women at UW-Madison among others.



Joe Palca (Moderator)

Joe Palca is one of the world's top voices in science and technology journalism, which makes us incredibly fortunate to have him as host of the 2016 ABET Symposium and moderator of our Plenary Discussion – Great Minds, Greater Impact, at lunchtime on Friday.

Since joining NPR as a science correspondent in 1992, Palca has covered a range of topics— everything from robotics and quantum computing to public water supplies, fuel emissions, and air quality. He is the eponymous host of Joe's Big Idea show.

The veteran reporter and experimental psychologist by training has won many science writing awards, including the National Academies Communications Award and the AAAS Journalism Prize. He is also co-author of the 2011 book "Annoying: The Science of What Bugs Us".

DISCUSSION DENS

These are organic conversations. There is no agenda, PowerPoint or podium. Not even a room. They start with an idea and an expert's personal thoughts on the matter, but that idea is only the catalyst.

The point of the Discussion Dens is to let the audience's questions, experiences, and thoughts build an inquisitive conversation that the group leader can guide with unique insight and expertise. When done well, the leader will learn just as much as the group.

The Discussion Den will be located at the **Diplomat Ballroom foyer**.

Using the ABET Brand: Let's Give 'Em Something to Talk About

Danielle Duran Baron, Ryan Garvin – ABET

> Thursday, April 14, 9:10 AM-10:25 AM

Flint, Ethiopia and Mexico: Working to Build Better Communities and Foster Trust

Laura Sullivan – Kettering University, Joe Palca (Moderator) – NPR

> Thursday, April 14, 1:30 PM-2:20 PM

Ask ABET Headquarters

Joe Sussman, Jane Emmet – ABET

> Thursday, April 14, 2:30 PM-3:45 PM

Accreditation: Moving Forward Together with Quality and Confidence – Case Study

Zenaida Otero Gephardt – Rowan University

> Thursday, April 14, 4:10 PM-5:00 PM

Preparing Students to Meet the Needs of Our Constituents – Building Excellence at a Hispanic-Serving Institution

Winston Erevelles – St. Mary's University

> Friday, April 15, 9:10 AM-10:25 AM

Engineering Better Education Through Effective Assessment

James Warnock – ABET

> Friday, April 15, 2:00 PM-3:15 PM

INVITED PRESENTERS

Invited Presenters are renowned leaders in their respective fields and/or they have received such high ratings as speakers during past ABET Symposia that we have welcomed them back to present again this year. Their presentations are indicated with an asterisk () throughout the schedule.*

Jenny Amos

Teaching Associate Professor, University of Illinois at Urbana-Champaign
Invited Presentation: Assessing Intercultural Competency in an E-learning Environment
 > Friday, April 15, 10:45 AM – 11:45 AM
 > Atlantic Ballroom 2

Cliff Davidson

Professor of Engineering, Syracuse University
Invited Presentation: Strategies and Resources for Incorporating Sustainability into Engineering Curricula
 > Thursday, April 14, 2:30 PM – 3:45 PM
 > Atlantic Ballroom 2

Angela Bielefeldt

Professor, Civil, Environmental, and Architectural Engineering University of Colorado Boulder
Invited Presentation: Strategies and Resources for Incorporating Sustainability into Engineering Curricula
 > Thursday, April 14, 2:30 PM – 3:45 PM
 > Atlantic Ballroom 2

Ivan E. Esparragoza

Associate Professor and Director of Engineering Technology and Commonwealth Engineering, Pennsylvania State University - Brandywine Campus
Invited Presentation: Industrial Involvement in Technical Programs
 > Thursday, April 14, 2:30 PM – 3:45 PM
 > Atlantic Ballroom 1

Judy Cezeaux

Professor and Chair of Biomedical Engineering, Western New England University
Invited Presentation: Natural Science Accreditation
 > Friday, April 15, 9:10 AM – 10:25 AM
 > Diplomat Ballroom 3

Zenaida Otero Gephardt

Associate Professor of Chemical Engineering, Rowan University
Invited Presentation: Accreditation: Moving Forward Together with Quality and Confidence - Case Study
 > Thursday, April 14, 4:10 PM – 5:00 PM
 > Discussion Den

Laura Angelica Hernandez Alvarado

Lecturer, Universidad Autonoma de San Luis Potosi

Invited Presentation: Natural Science Accreditation

- > Friday, April 15, 10:45 AM – 11:45 AM
- > Diplomat Ballroom 3

Mary Lanzerotti

Associate Professor of Computer Engineering, Air Force Institute of Technology

Invited Presentation: Natural Science Accreditation

- > Friday, April 15, 9:10 AM – 10:25 AM
- > Diplomat Ballroom 3

Nickolas Jovanovic

Assessment and Accreditation Coordinator, University of Arkansas at Little Rock

Invited Presentation: Creation and Initial Accred. of 3 Construction-Related Prgms.

- > Thursday, April 14, 2:30 PM – 3:45 PM
- > Diplomat Ballroom 4

Natural Science Accreditation

- > Friday, April 15, 9:10 AM – 10:25 AM
- > Diplomat Ballroom 3

Cathy Leslie

Executive Director, EWB-USA

Invited Presentation: Global Engineering for Developing Communities: Certification Program

- > Friday, April 15, 2:00 PM – 3:15 PM
- > Atlantic Ballroom 1

Larry Kaye

Special Advisor to the Executive Director, ABET

Invited Presentation: Natural Science Accreditation

- > Friday, April 15, 8:10 AM – 9:00 AM, 9:10 AM – 10:25 AM, 10:45 AM – 12:00 PM
- > Diplomat Ballroom 3

Tim McGhee

Dean of the Engineering & Information Technologies Division, Chattanooga State Community College

Invited Presentation: Natural Science Accreditation

- > Friday, April 15, 10:45 AM – 12:00 PM
- > Diplomat Ballroom 3

(Continued)

Wanda Minnick

Assistant Professor, Indiana University of Pennsylvania

Invited Presentation: Engaging Students Through Active Learning Strategies

- > Friday, April 15, 10:45 AM – 11:45 AM
- > Atlantic Ballroom 2

A. Bülent Özgüler

Professor, Bilkent University / MUDEK

Invited Presentation: International Accreditors Forum

- > Friday, April 15, 10:45 AM – 11:45 AM
- > Diplomat Ballroom 5

Lawrence Morehouse

President, Florida Education Fund, Associate Professor Political Science, University of South Florida

Invited Presentation: Diversity & Inclusion: A Global Perspective

- > Friday, April 15, 9:10 AM – 10:25 AM
- > Diplomat Ballroom 1

Cecelia A. Paredes

Vice-Rector (Provost), Escuela Superior Politécnica del Litoral (ESPOL)

Invited Presentation: Accreditation, Global Economic Development, and Capacity Building

- > Thursday, April 14, 10:45 AM – 12:00 PM
- > Atlantic Ballroom 1

Lueny Morell

President and Founder, Lueny Morell & Associates and InnoVaHiEd

Invited Presentations: Industrial Involvement in Tech Pgms: A Global Context

- > Thursday, April 14, 2:30 PM – 3:45 PM
- > Atlantic Ballroom 1
- Diversity & Inclusion: A Global Perspective
- > Friday, April 15, 9:10 AM – 10:25 AM
- > Diplomat Ballroom 1

Maria Larrondo Petrie

Professor and Associate Dean of International Affairs, Florida Atlantic University

Invited Presentation: Accreditation, Global Economic Development, and Capacity Building

- > Thursday, April 14, 10:45 AM – 12:00 PM
- > Atlantic Ballroom 1

Thomas Nelson Laird

Associate Professor and Director, Center for Postsecondary Research, Indiana University

Invited Presentation: Natural Science Accreditation

- > Friday, April 15, 9:10 AM – 10:25 AM
- > Diplomat Ballroom 3

Aryanne Quintal

Project Coordinator, OAS Competitiveness, Innovation, & Technology Section

Invited Presentation: Accreditation, Global Economic Development, and Capacity Building

- > Thursday, April 14, 10:45 AM – 12:00 PM
- > Atlantic Ballroom 1

Francisco Medellin Rodriguez

Director, Universidad Autonoma de San Luis Potosi

Invited Presentation: Natural Science Accreditation

- > Friday, April 14, 8:10 AM – 9:00 AM
- > Diplomat Ballroom 3

John Steadman

Dean, College of Engineering, University of South Alabama

Invited Presentation: Learn How to Use the FE Exam for Effective Outcomes Assessment in All Engineering Disciplines

- > Thursday, April 14, 4:10 PM – 5:00 PM
- > Diplomat Ballroom 1

Luis Sánchez Álvarez

Higher Education Advisor, Cabinet of the Madrid Regional Minister for Education

Invited Presentation: International Accreditors Forum

- > Friday, April 15, 10:45 AM – 11:45 AM
- > Diplomat Ballroom 5

Renatta Tull

Associate Vice Provost for Graduate Student Professional Development & Postdoctoral Affairs, University of Maryland, Baltimore County

Invited Presentation: Diversity & Inclusion: A Global Perspective

- > Friday, April 15, 9:10 AM – 10:25 AM
- > Diplomat Ballroom 1

Deborah Seddon

Head of Policy and Standards, Engineering Council

Invited Presentation: International Accreditors Forum

- > Friday, April 15, 10:45 AM – 11:45 AM
- > Diplomat Ballroom 5

Yvette Pearson Weatherton

Senior Lecturer, University of Texas at Arlington

Invited Presentation: Strategies and Resources for Incorporating Sustainability into Engineering Curricula

- > Thursday, April 14, 2:30 PM – 3:45 PM
- > Atlantic Ballroom 2

Stacey Seeley

Professor, Department of Chemistry and Biochemistry, Kettering University

Invited Presentation: Natural Science Accreditation

- > Friday, April 15, 10:45 AM – 11:45 AM
- > Diplomat Ballroom 3

Janna P. Vice

Sr. VP for Academics & Provost, Eastern Kentucky University

Invited Presentation: Developing Sustainable Assessment and Evaluation Processes

- > Friday, April 14, 10:45 AM – 11:45 AM
- > Atlantic Ballroom 2

ACCREDITATION COMMISSIONS TOWN HALLS

Culminating the 2016 ABET Symposium, each of ABET's Accreditation Commissions will have an interactive town hall session. After a brief presentation, members of the respective commission's volunteer leadership and its Adjunct Director(s) will open the floor for accreditation questions and discussions. Symposium attendees may participate in the town hall session of their choice.

Applied Science

Diplomat Ballroom 3



Neil Hutzler

Chair, Applied Science Accreditation Commission, ABET; Michigan Technological University (Retired)



Hamid Fonooni

Chair-Elect, Applied Science Accreditation Commission, ABET; Program Director, University of California–Davis



Paul Male

Past Chair, Applied Science Accreditation Commission, ABET; Adjunct Faculty, Hudson Valley Community College



Amanda Reid

Adjunct Accreditation Director, Applied Science, ABET

Computing

Atlantic Ballroom 2



Lois Mansfield

Chair, Computing Accreditation Commission, ABET; Raytheon Company (formerly Texas Instruments)



James Aylor

Chair-Elect, Computing Accreditation Commission, ABET; Dean Emeritus, School of Engineering and Applied Science, University of Virginia



Stan Thomas

Past Chair, Computing Accreditation Commission, ABET; Associate Professor, Computer Science, Wake Forest University



Art Price

Adjunct Accreditation Director, Computing, ABET; Retired Distinguished Member of the Technical Staff, Bell Laboratories

Engineering

Atlantic Ballroom 1



Sarah Rajala

Chair, Engineering Accreditation Commission, ABET; Dean, College of Engineering, Iowa State University



John Orr

Chair-Elect, Engineering Accreditation Commission, ABET; Co-Director, Liberal Arts & Engineering, Professor, Electrical & Computer Engineering, Worcester Polytechnic Institute



William Wepfer

Past Chair, Engineering Accreditation Commission, ABET; Professor, Heat Transfer, Combustion and Energy Systems, Georgia Institute of Technology



Dayne Aldridge

Adjunct Accreditation Director, Engineering, ABET; Dean Emeritus, School of Engineering, Mercer University

**Doug Bowman**

Adjunct Accreditation Director, Engineering, ABET; Retired Program Director, Logistics IT Solutions, Lockheed Martin

**Susan Conry**

Adjunct Accreditation Director, Engineering, ABET; Distinguished Service Professor, Electrical and Computer Engineering, Clarkson University

**Winston Erevelles**

Adjunct Accreditation Director, Engineering, ABET; Dean and Professor of Industrial Engineering, St. Mary's University

**Mike Leonard**

Adjunct Director, Training, and Adjunct Accreditation Director, Engineering, ABET; Senior Associate Dean and Professor Emeritus, School of Engineering, Mercer University

Engineering Technology

Atlantic Ballroom 3



Wilson Gautreaux

Chair, Engineering Technology Accreditation Commission, ABET; Coordinator, Environmental Technology, Trident Technical College



Kirk Lindstrom

Chair-Elect, Engineering Technology Accreditation Commission, ABET; Director Compensation, Questar



John Sammarco

Past Chair, Engineering Technology Accreditation Commission, ABET; Principal Research Engineer, National Institute for Occupational Safety and Health (NIOSH)



Frank Hart

Adjunct Accreditation Director, Engineering Technology, ABET; Dean Emeritus, School of Engineering Technology and Computer Science, Bluefield State College

SELF-STUDY REPORT ROOM

The 2016 ABET Symposium Self-Study Report Room is located in **Rooms 212-214** on the second floor, Resort side of The Diplomat. Team Chairs or program evaluators nominated examples of well-prepared Self-Study Reports based on the following criteria:

- > Followed the Self-Study Report questionnaire guidelines.
- > Addressed each criterion succinctly.
- > Did not contain a lot of extraneous information.
- > Made good use of graphs, tables, and charts.
- > Used the appendices well.

Please note that this does NOT mean that the program was in full compliance with all criteria; it only means that the program has done a thorough job of preparing the Self-Study Report.

Self-Study Report Room Hours:

The room is open during the following times:

- > Wednesday, April 13, 12:00 PM – 7:00 PM
- > Thursday, April 14, 9:00 AM – 7:00 PM
- > Friday, April 15, 9:00 AM – 5:00 PM
- > Saturday, April 16, 8:00 AM – 12:00 PM

We ask that you please silence your phone.

If a participant leaves the Self-Study Report Room for more than 15 minutes, any Self-Study Reports that he/she has left out will be checked back in.

SELF-STUDY REPORTS AVAILABLE FOR REVIEW*

Applied Science Accreditation Commission (ASAC)

Bachelor (4-Year) Level

- > Safety Sciences – Indiana University of Pennsylvania
- > Safety Technology – Marshall University
- > Safety, Health and Environmental Applied Sciences – Indiana University of Pennsylvania

Master (Post-Graduate) Level

- > Construction Engineering & Management – King Fahd University of Petroleum and Minerals
- > Industrial Hygiene – West Virginia University
- > Safety Management – West Virginia University

Computing Accreditation Commission (CAC)

Bachelor (4-Year) Level

- > Computer Science – King Fahd University of Petroleum and Minerals
- > Computer Science – Pontificia Universidad Javeriana Cali
- > Computer Science – Southern Illinois University Carbondale
- > Information Systems – City University of Seattle
- > Information Technology – Abu Dhabi University

Engineering Accreditation Commission (EAC)

Bachelor (4-Year) Level

- > Aerospace Engineering – King Fahd University of Petroleum and Minerals
- > Agricultural and Biosystems Engineering – South Dakota State University
- > Applied Aerospace Engineering – King Fahd University of Petroleum and Minerals
- > Applied Chemical Engineering – King Fahd University of Petroleum and Minerals
- > Applied Electrical Engineering – King Fahd University of Petroleum and Minerals
- > Applied Mechanical Engineering – King Fahd University of Petroleum and Minerals

**The list of Self-Study Reports available for review is subject to change.*

- > Architectural Engineering – King Fahd University of Petroleum and Minerals
- > Chemical Engineering – King Abdulaziz University
- > Chemical Engineering – King Fahd University of Petroleum and Minerals
- > Chemical Engineering – Tsinghua University
- > Civil Engineering – King Abdulaziz University
- > Civil Engineering – King Fahd University of Petroleum and Minerals
- > Civil Engineering – Notre Dame University – Louaize
- > Civil Engineering – Pontificia Universidad Javeriana Cali
- > Civil Engineering – South Dakota State University
- > Computer Engineering – American University of Kuwait
- > Computer Engineering – Christopher Newport University
- > Computer Engineering – King Fahd University of Petroleum and Minerals
- > Construction Engineering and Management – King Fahd University of Petroleum and Minerals
- > Control and Instrumentation Systems Engineering – King Fahd University of Petroleum and Minerals
- > Electrical and Computer Engineering Program of The University of Michigan-Shanghai Jiao Tong University Joint Institute – Shanghai Jiao Tong University
- > Electrical Engineering – Harvard University
- > Electrical Engineering – King Fahd University of Petroleum and Minerals
- > Electrical Engineering (Biomedical) – King Abdulaziz University
- > Electrical Engineering (Computer) – King Abdulaziz University
- > Electrical Engineering (Electronics and Communications) – King Abdulaziz University
- > Electrical Engineering (Power and Machines) – King Abdulaziz University
- > Electronic Engineering – Pontificia Universidad Javeriana Cali
- > Engineering – Fort Lewis College
- > Engineering – Marshall University

(Continued)

SELF-STUDY REPORTS AVAILABLE FOR REVIEW*

- > Engineering – Pensacola Christian College
- > Engineering Science(s) – Harvard University
- > Environmental Engineering – Tsinghua University
- > Industrial and Systems Engineering – King Fahd University of Petroleum and Minerals
- > Industrial Engineering – King Abdulaziz University
- > Industrial Engineering – Pontificia Universidad Javeriana Cali
- > Mechanical Engineering – Abu Dhabi University
- > Mechanical Engineering – Harvard University
- > Mechanical Engineering – King Fahd University of Petroleum and Minerals
- > Mechanical Engineering – South Dakota State University
- > Mechanical Engineering – Tsinghua University
- > Mechanical Engineering (Aeronautical) – King Abdulaziz University
- > Mechanical Engineering (Production and Mechanical Systems Design) – King Abdulaziz University
- > Mechanical Engineering (Thermal Engineering and Desalination Technology) – King Abdulaziz University
- > Mechanical Engineering Program of The University of Michigan-Shanghai Jiao Tong University Joint Institute – Shanghai Jiao Tong University
- > Mining Engineering – King Abdulaziz University
- > Nuclear Engineering – King Abdulaziz University
- > Nuclear Engineering (Medical Physics) – King Abdulaziz University
- > Nuclear Engineering (Radiation Protection) – King Abdulaziz University
- > Petroleum Engineering – King Fahd University of Petroleum and Minerals
- > Software Engineering – King Fahd University of Petroleum and Minerals
- > Water Supply and Wastewater Engineering – Tsinghua University

**The list of Self-Study Reports available for review is subject to change.*

Engineering Technology Accreditation Commission (ETAC)

Associate (2-Year) Level

- > Electrical Engineering Technology – Ivy Tech Community College
- > Mechanical Engineering Technology – Ivy Tech Community College

Bachelor (4-Year) Level

- > Electronics Engineering Technology – Northern Michigan University
- > Industrial Automation and Electronics Technology – TECSUP, Lima
- > Manufacturing Engineering Technology – Central Connecticut State University
- > Mechanical Engineering Technology – Central Connecticut State University
- > Mechanical Engineering Technology – Northern Michigan University
- > Mechanical Engineering Technology – West Virginia University
- > Network and Data Communications Technology – TECSUP, Lima

2016 ABET SYMPOSIUM EDUCATIONAL TRACKS

The 2016 ABET Symposium has more than 90 concurrent sessions in four educational tracks. Tracks are intended to guide participants who wish to concentrate on specific topics during their time at the Symposium. All sessions are open to all registrants.

Please feel free to “mix and match” the sessions as they meet your needs. If you have come with a team of faculty, this information will help you divide your efforts and select the sessions that are most appropriate for your program.

Global Accreditation

With more than 10% of our accredited programs located outside the U.S., our geographic scope has increased significantly over the last decade. Why do these programs choose ABET accreditation? What kind of challenges arise along the way? How do they tackle them?

Learn how programs worldwide are pursuing ABET accreditation and how they are leveraging their accreditation status to distinguish themselves in the increasingly competitive and international world of higher education.

Best Practices in Program Assessment

Given the current climate in technical education, where more programs are including a business element in their curriculum, the 2016 ABET Symposium will highlight sessions on developing/assessing student outcomes beyond a-k and effective assessment outside the classroom (i.e., student competitions, service learning).

Learn more about best practices in program assessment and how you can use this information to document, explain, and improve innovative efforts implemented to prepare students for the global workforce.

Disruption and Innovation in Technical Education

In an increasingly intricate landscape, technical education finds itself in the midst of massive disruption. When a student's options range from MOOCs to certifications how does conventional on-campus education remain relevant? How do outreach initiatives help institutions maintain and enhance their competitiveness? See how technical programs are helping universities respond to growing demands to contribute to local and regional economic development.

Accreditation Policies, Procedures, and Personnel

Acknowledging that our program evaluators are at the heart of the accreditation process, sessions in this track will focus on specific tasks and duties performed by PEVs, covering topics such as: *Alternative Visit Protocols*, *Statement Writing*, and *Accrediting Natural Science Academic Programs*.

This track is designed for Symposium attendees from academic institutions, current or former PEVs seeking to develop professionally as a PEV, and for those interested in learning what PEVs are taught. It will also provide attendees from academic institutions with insight into the accreditation process, whether they are considering accreditation for the first time or are interested in learning more about the on-site review process.

SCHEDULE AT-A-GLANCE

7:00 AM – 8:00 AM	Breakfast > Great Hall Foyer 1
7:00 AM – 3:00 PM	Registration Open
8:00 AM – 9:00 AM	Welcome, Opening Session with Francisco Marmolejo > Great Hall 1
9:00 AM – 7:00 PM	Self-Study Report Room Open > Conference Rooms 212-214
9:10 AM – 10:25 AM	Concurrent Sessions
10:25 AM – 10:45 AM	Networking Break
10:45 AM – 12:00 PM	Concurrent Sessions

12:00 PM – 1:30 PM	Lunch, Plenary Address with Doug Melton > Great Hall 1
1:30 PM – 2:20 PM	Concurrent Sessions
2:30 PM – 3:45 PM	Concurrent Sessions
3:45 PM – 4:10 PM	Networking Break
4:10 PM – 5:00 PM	Concurrent Sessions
5:00 PM – 6:00 PM	Reception > South Palm Court

SCHEDULE

	Atlantic 1	Atlantic 2	Atlantic 3	Diplomat 1
7:00 AM – 8:00 AM	<p>Breakfast > Great Hall Foyer 1</p>			
8:00 AM – 9:00 AM	<p>Welcome, Opening Session with Francisco Marmolejo > Great Hall 1</p>			
9:10 AM – 10:25 AM	<p>Accreditation Policies Preparing the Self-Study Report for Computing <i>D. Reese, S. Itoga</i></p>	<p>Accreditation Policies Demonstrating Compliance with Criterion 4: Assessment and Evaluation <i>J. Turner</i></p>		<p>Accreditation Policies Review of an Online/Hybrid Program-Guidelines for TC/PEV: Lessons Learned and Plans for Improvement <i>B. Price, S. Dunning, S. Plantz-Masters, D. Otwell, P. Carrato</i></p>
10:25 AM – 10:45 AM	<p>Networking Break</p>			
10:45 AM – 12:00 PM	<p>Accreditation Policies *Accreditation, Global Economic Development, and Capacity Building <i>C. Paredes, M. Larrondo Petrie, A. Quintal</i></p>	<p>Accreditation Policies Best Practices/Lessons Learned from ABET-accredited Online/Hybrid Programs <i>B. Price, I. Kao, R. Olawoyin, S. Plantz-Masters, R. Coe</i></p>	<p>ABET Industry Advisory Council (Re)Building and Managing Effective Industry Advisory Councils <i>J. Ness, R. Reid</i></p>	<p>Accreditation Policies Preparing the Self-Study Report for Applied Science <i>J. Racette, P. Male</i></p>
12:00 PM – 1:30 PM	<p>Lunch, Plenary Address with Doug Melton > Great Hall 1</p>			

*Invited Presenters

Diplomat 2

Diplomat 3

Diplomat 4

Diplomat 5

7:00 AM – 8:00 AM

8:00 AM – 9:00 AM

Best Practices

- 1) Closing the Loop Effectively
- 2) Ensuring Educational Quality Through Program Internal Peer-Review
- 3) Using Major Design for Student Outcomes A, C, E and K

Accreditation Policies

We Are Interested in Seeking ABET Accreditation: Are We Ready?
W. Erevelles

Best Practices

- 1) Evaluating Rubric-Based Data with Performance Heuristics
- 2) Adapting and Imposing Electronic Course Portfolios
- 3) An Analytic Rubric with an Increased Faculty Buy-In

9:10 AM – 10:25 AM

Discussion Den

Using the ABET Brand: Let's Give 'Em Something to Talk About
D. Duran Baron, R. Garvin

10:25 AM – 10:45 AM

Global Accreditation

- 1) Accreditation at the Master's Level
- 2) Challenges in Meeting ABET Criteria
- 3) Lessons Learned from Accreditation of an Engineering Program Outside the US

Accreditation Policies

Preparing the Self-Study Report for Engineering
J. Fergus

Disruptions and Innovations

- 1) An Inventory of Skills for a Computing Curriculum
- 2) Exploring the Opportunity of Cloud Computing for ABET Programs
- 3) Flipping/Hybridizing an Engineering Ethics Course

Accreditation Policies

Resilience: Women in Engineering
J. Rogers

10:45 AM – 12:00 PM

12:00 PM – 1:30 PM

SCHEDULE (cont.)

	<i>Atlantic 1</i>	<i>Atlantic 2</i>	<i>Atlantic 3</i>	<i>Diplomat 1</i>
1:30 PM – 2:20 PM	<p>Disruptions and Innovations Using Systems Engineering Concepts to Enhance Student Outcomes <i>P. Brown, O. Imas, M. Simoni, G. Cockrell</i></p>	<p>Accreditation Policies Partially Virtual Pilot Program <i>N. Hutzler, H. Fonooni, R. Keller</i></p>	<p>Accreditation Policies An Interactive Workshop on Draft Program Criteria for Cyber Sciences <i>R. Greenlaw, S. Lingafelt, A. Phillips</i></p>	<p>Accreditation Policies Relevancy of Engineering Technology Program Criteria: a 360 Degree View <i>S. Sarkar</i></p>
2:30 PM – 3:45 PM	<p>Global Accreditation *Industrial Involvement in Technical Programs: A Global Context <i>B. Furht, I. Esparragoza, L. Morell</i></p>	<p>Disruptions and Innovations *Strategies and Resources for Incorporating Sustainability into Engineering Curricula <i>Y. Weatherton, A. Bielefeldt, C. Davidson</i></p>	<p>Disruptions and Innovations Practical Integration of Diversity and Inclusion Competencies into Engineering Education <i>K. Constant</i></p>	<p>Accreditation Policies Statement Writing Exercise <i>J. Fergus, P. Brackin</i></p>
3:45 PM – 4:10 PM	<p>Networking break</p>			
4:10 PM – 5:00 PM	<p>Accreditation Policies Joint and Simultaneous Visits <i>P. Male, A. Greife, J. Nalbone, T. Kuckertz, R. Doyle</i></p>	<p>Disruptions and Innovations Understanding/Realizing the Value of Systems Engineering Knowledge <i>R. Adcock, P. Brouse, F. Hughes, L. Strawser</i></p>	<p>Disruptions and Innovations New Perspectives on Improving Systems Engineering Education <i>P. Brown, N. Hutchinson, M. Pennotti, R. Turner</i></p>	<p>Best Practices *Learn How to Use the FE Exam for Effective Outcomes Assessment in All Engineering Disciplines <i>J. Steadman, G. Crawford</i></p>
5:00 PM – 6:00 PM	<p>Reception > South Palm Court</p>			

*Invited Presenters

Diplomat 2

Best Practices

Using Best Practices in Data Visualization to Improve Assessment Practice
S. Dolan

Accreditation Policies

Consensus Out of Complexity
G. Rogers, D. Briedis

Diplomat 3

Best Practices

Standardized, Streamlined Assessment Reporting Using Performance Vectors & Faculty Course Assessment Reports
J. Estell

Accreditation Policies

Alternative Protocols for Conducting Accreditation Visits
W. Erevelles, M. Oudshoorn, R. Miller, S. Hersh

Diplomat 4

Disruptions and Innovations

Selling Assessment: Successfully Managing Faculty Objections and Concerns
F. Young, E. Tadik Yaprak

Global Accreditation

- 1) Merits and Drawbacks from Seeking Multiple Accreditations
- 2) *Creation/Initial Accreditation of 3 Construction-Related Programs

Diplomat 5

Best Practices

Assessment Techniques of Students' Softskills in Engineering
D. Viviana Vladutescu

Accreditation Policies

Preparing the Self-Study Report for Engineering Technology
F. Young

1:30 PM – 2:20 PM

Discussion Den

Flint, Ethiopia and Mexico: Working to Build Better Communities and Foster Trust
L. Sullivan, J. Palca

2:30 PM – 3:45 PM

Discussion Den

Ask ABET Headquarters
J. Sussman, J. Emmet

3:45 PM – 4:10 PM

4:10 PM – 5:00 PM

Discussion Den

Accreditation: Moving Forward Together with Quality and Confidence – Case Study
Z. Otero Gephardt

5:00 PM – 6:00 PM

Accreditation Policies

How to Become a PEV
C. Hickman, W. Erevelles, F. Hart

Program Assessment

- 1) Readiness Review
- 2) The Power of the Map and the Art of Asking for Directions

Best Practices

Hands-on the University Learning Assurance Database (Web-based) Application
D. Duncan, R. Mason

*Invited Presenters

75-MINUTE SESSIONS

9:10 AM – 10:25 AM

Accreditation Policies, Procedures, and Personnel

Preparing the Self-Study Report for Computing

*Donna S. Reese – Mississippi State University;
Stephen Y. Itoga – University of Hawaii at Manoa*
> Atlantic Ballroom 1

Session Description

The goal of this session is to facilitate preparation of the Self-Study Report by computing programs preparing for an ABET Readiness Review or an ABET evaluation visit. At the end of the session, you will understand the structure and content of the Self-Study Report as well as the types of responses expected.

Accreditation Policies, Procedures, and Personnel

Demonstrating Compliance with Criterion 4: Assessment and Evaluation

Joe Turner – Clemson University
> Atlantic Ballroom 2

Session Description

Intended primarily for faculty and administrators of programs planning for an ABET accreditation review, the focus of this session will be on the evaluation of a program relative to Criterion 4, Continuous Improvement. Expectations of Program Evaluators (PEVs) for demonstrating compliance with various aspects of Criterion 4 will be discussed and demonstrated. You are encouraged to participate in the discussion and ask questions. The objective of the session is to help programs understand better how to demonstrate and document a continuous improvement process in order to satisfy Criterion 4, and how to present evidence of a good continuous improvement process effectively to PEVs.

DISCUSSION DEN

Using the ABET
Brand: Let's Give 'Em
Something to Talk
About

*Danielle Duran Baron,
Ryan Garvin – ABET*

Accreditation Policies, Procedures, and Personnel

Review of an Online/Hybrid Program - Guidelines for TC/PEV: Lessons Learned and Plans for Improvement

*Barbara A. Price – Georgia Southern University; Scott Dunning –
University of Maine; Shari Plantz-Masters – Regis University; David H.
Olwell – Saint Martin's University; Peter Carrato – Bechtel Corporation*
> Diplomat Ballroom 1

Session Description

This session will feature a panel of individuals who have been Team Chairs (TCs) and/or Program Evaluators (PEVs) on a recent visit to an online/hybrid program. Panelists will provide lessons learned and discuss the value of the guidelines developed in 2014-2015 in assisting TCs' and PEVs' preparation for a review. There will also be a brief presentation of plans for developing online training for Online/Hybrid Teams for the 2017 cycle. The session will conclude with 15-20 minutes of Q&A.

Best Practices in Program Assessment

Three 25-Minute Presentations

> Diplomat Ballroom 2

Closing the Loop Effectively Without Hassles

Richard Olawoyin – Oakland University

Session Description

The session will provide you with an outline on how to properly structure the assessment process for any intended program. Ideas will be shared on how to choose the most efficient assessment and evaluation processes that ultimately help to improve the quality of student learning. At the end of the session, you will understand the purpose of conducting assessment, the process of carrying out an effective assessment, evaluation and implementation of assessment results, the procedure of documenting the assessment process, and the way to focus primarily on achieving the defined Student Outcomes.

(Continued)

75-MINUTE SESSIONS

9:10 AM – 10:25 AM

*Ensuring Educational Quality Through
Program Internal Peer-Review**Mohammed Samaka – Qatar University***Session Description**

In this session, the presenter will share a successful self-assessment process recently conducted at the College of Engineering at Qatar University. The program did this in preparation for a formal ABET evaluation in 2016. The presentation will use the peer evaluation process applied at the College of Engineering as a case study highlighting best practices in self-assessment for continuous improvement. The presentation will focus on the significance of accreditation in maintaining and improving the quality of undergraduate programs, on the effort put toward preparing the programs for meeting ABET criteria and for the self-assessment, and on training faculty, who will be acting as peer evaluators in the self-assessment process. The presenter will also go over the procedures applied and the outcomes of the self-assessment during the three phases of evaluation: pre-analysis, the site visit, and the post visit.

*Using Major Design for Student Outcomes
A, C, E and K**Felipe Muñoz Giraldo – Universidad de los Andes***Session Description**

This session will focus on techniques to teach design while measuring and improving multiple ABET Student Outcomes. This program focuses the major design experience on Student Outcomes A (apply math, science, and engineering,) C (design), E (solve problems), and K (engineering practice). Lectures are integrated with hands-on modeling and the capstone design project to provide the students with progressive experiences that give them the experience they need to create designs in their professional practice.

Accreditation Policies, Procedures, and Personnel

We Are Interested In Seeking ABET Accreditation: Are We Ready?

Winston Erevelles – St. Mary's University

> Diplomat Ballroom 3

Session Description

Considering ABET accreditation for the first time? You cannot miss this session, where you will gain a firm understanding of the foundational processes and procedures of the ABET accreditation process. You will learn what is needed to prepare for the initial accreditation of a program and where to turn for further information. During the session, we will go over the entire process of ABET accreditation – from how to apply, to the purpose of the Self-Study Report and what to expect during the on-site visit. You will also understand what a due process response entails and when to expect the final decision.

Best Practices in Program Assessment

Three 25-Minute Presentations

> Diplomat Ballroom 4

Evaluating Rubric-Based Data with Performance Heuristics

John Estell – Ohio Northern University

Session Description

When evaluating the assessment of student outcomes, it helps to have a concise, standardized approach for objectively appraising the data. This session will present a methodology successfully used as part of a sustainable evaluation process: the application of heuristics on rubric-based data reported in the form of performance vectors. You will leave this presentation with the knowledge of how a more sustainable and streamlined approach to student outcomes assessment can be readily implemented through the systematic use of rubrics, vectors, and heuristics. Attendees are expected to have background knowledge of basic assessment practices, including rubric use, and of assessment terminology.

(Continued)

75-MINUTE SESSIONS

9:10 AM – 10:25 AM

Adapting and Imposing Electronic Course Portfolios with a Fixed Structure

Khalid Khawaja – Rochester Institute of Technology – Dubai

Session Description

This session will emphasize the need to adapt housing of required course ABET material in an electronic format versus hard copy, especially for managing international programs. You will leave this session with a full appreciation of the necessity of installing such structure in order to lead and manage a successful ABET environment.

An Analytic Rubric With an Increased Faculty Buy-In

Haitham Bogis – King Abdulaziz University

Session Description

This session will introduce you to the process of developing an efficient analytic rubric that will aid in managing the change resistance of the faculty members that will be using your rubrics. By the end of the session, you will be able to modify traditional analytic rubrics into efficient analytic rubrics that will result in increased buy-in from the faculty members in your program.

75-MINUTE SESSIONS

10:45 AM – 12:00 PM

Accreditation Policies, Procedures, and Personnel***Accreditation, Global Economic Development, and Capacity Building***Cecilia Paredes – Escuela Superior Politécnica del Litoral (ESPOL);**Maria Larrondo Petrie – Florida Atlantic University;**Aryanne Quintal – Department of Economic Development, Organization of American States (OAS)*

> Atlantic Ballroom 1

Session Description

Presenters will share projects and initiatives focusing on economic development, capacity building, graduate employment, and mobility resulting from or linked to ABET accreditation. They will also discuss the role of the Organization of American States and professional organizations in advancing accreditation efforts and engineering education excellence leading to economic development and capacity building.

Accreditation Policies, Procedures, and Personnel**Best Practices and Lessons Learned from ABET-Accredited Online/Hybrid Programs***Barbara Price – Georgia Southern University; Richard Olawoyin –**Oakland University; Imin Kao – Stony Brook University;**Shari Plantz-Masters – Regis University; Richard P. Coe –**Thomas Edison State University*

> Atlantic Ballroom 2

Session Description

This session will have a panel of representatives from ABET-accredited Online/Hybrid programs. Panelists will be faculty and/or administrators who will provide best practices as well as lessons learned from preparing for and going through an ABET Program Review. The session will conclude with 15-20 minutes of Q&A.

*Invited Presenters

ABET Industry Advisory Council

(Re)Building and Managing Effective Industry Advisory Councils

*Jon Ness – RFA Engineering; Richard Reid – South Dakota
State University*

> Atlantic Ballroom 3

Session Description

Industry advisory councils can serve a range of important purposes, but often struggle to successfully engage their members on the issues of most strategic importance to the academic program. During this interactive session you will be encouraged to identify specific items of interest - such as setting a mission and focus, membership policies, setting agendas, frequency of meetings, staffing, and tactics for engaging council members in the ABET accreditation process. Come ready with your questions, success stories, and problem statements.

Accreditation Policies, Procedures, and Personnel

Preparing the Self-Study Report for Applied Science

Jason Racette – ABET; Paul Male – Hudson Valley Community College

> Diplomat Ballroom 1

Session Description

This session will provide you with an overview of the Applied Science Accreditation Commission (ASAC) Self-Study template and include tips for programs completing and submitting it for a successful evaluation.

75-MINUTE SESSIONS

10:45 AM – 12:00 PM

Global Accreditation

Three 25-Minute Presentations

> Diplomat Ballroom 2

Accreditation at the Master's Level: Changes, Challenges, and Opportunities

Mohsin Siddiqui – Qatar University

Session Description

Accreditation at the master's level in engineering disciplines has evolved significantly over the past few years. This session will outline the changes in the Engineering Accreditation Commission (EAC) Criteria for master's level programs and highlight the impact of those changes on the programs seeking such accreditation as well as those already accredited by EAC. Presenters will discuss a case study examining some of the challenges and opportunities arising from the EAC Criteria changes.

Challenges in Meeting ABET Criteria in a Country That Lacks Culture of Program Assessment

Norha Villegas – Universidad Icesi, Colombia

Session Description

This session will discuss challenges in meeting ABET requirements for programs accredited under models similar to the Colombian one, and will demonstrate how the team overcame these challenges and established a sustainable assessment and continuous improvement culture. This session will explain challenges faced when meeting ABET criteria in countries whose national accreditation models are weak in terms of assessment, evaluation, and continuous improvement requirements and provide the presenters' experience in overcoming these challenges.

Lessons Learned from Full Initial Accreditation of an Engineering Program Located Outside the United States

Carlos Solorio – CETYS University

Session Description

This session will focus on the unique challenges and opportunities of seeking ABET accreditation for an engineering program located outside the United States. In this case, the institution is already accredited by the Western Association of Schools and Colleges (WASC). Challenges for the integration of assessment, evaluation, and continuous improvement between both the ABET and WASC “cultures” are outlined, and the strategies for managing the continuous improvement process are presented. This session will be useful for administrators and faculty seeking initial accreditation for their engineering programs, especially those located outside the United States.

Accreditation Policies, Procedures, and Personnel

Preparing the Self-Study Report for Engineering

Jeff Fergus – Auburn University

> Diplomat Ballroom 3

Session Description

The purpose of this session is to provide information that will help your program prepare an effective Self-Study Report and get ready for an ABET visit.

75-MINUTE SESSIONS

10:45 AM – 12:00 PM

Disruption and Innovation in Technical Education*Three 25-Minute Presentations*

> Diplomat Ballroom 4

*An Inventory of Skills for a Computing Curriculum: Foundation, Structure, and Contents**Arnaldo Ramos-Torres – University of Puerto Rico***Session Description**

This session will present an inventory of skills for a computing curriculum. The skills range from client-facing skills, such as business process analysis and business process modeling, to more technical ones, including programming fundamentals and infrastructure operations, in addition to soft skills such as teamwork and ethics, as well as entrepreneurial skills. Presenters will exhibit a tool specifically designed to determine the extent to which your computing curriculum supports the skills contained in the inventory. Although the session will be presented in the context of an information systems curriculum, it can be applied to any academic program.

*Exploring the Disruptive, Innovative and Economic Opportunity of Cloud Computing for ABET Computing Programs**Bill Dafnis – Capella University***Session Description**

It is known that the IT industry is undergoing a digital transformation through cloud computing platforms. It is also affirmed that ABET Student Outcomes represent what students are expected to know and be able to accomplish by the time they graduate. This session will present how the innovative and economic attributes of cloud computing is transforming information technology (IT) and ultimately portend the commoditization of the IT domain (Potter, 2013). Presenters will discuss these outcomes in the context of the academic computing domain.

Flipping and Hybridizing an Engineering Ethics Course

Glen Miller, Ray James, Alex Sprintson – Texas A&M University

Session Description

This session focuses on a discussion of the strategy, execution, and lessons learned while flipping and hybridizing a large engineering ethics course. A brief description of pedagogical goals and how they map to ABET Student Outcomes will be shared.

Accreditation Policies, Procedures, and Personnel

Resilience: Women in Engineering

Jamie Rogers – University of Texas at Arlington

> Diplomat Ballroom 5

Session Description

Jamie Rogers is ABET's Past-President and a longtime Program Evaluator. During this highly personal and thought-provoking presentation, she will share her story and take you through the unusual path that led her from music to engineering and industry to academia. From a woman's perspective, she will also talk about her career trajectory and how constant engagement with ABET influenced and inspired her along the way.

50-MINUTE SESSIONS

1:30 PM – 2:20 PM

Disruption and Innovation in Technical Education

Using Systems Engineering Concepts to Enhance Student Outcomes in Capstone Courses

Phillip Brown – International Council on Systems Engineering; Mario Simoni – Rose-Hulman Institute of Technology; Gerald Cockrell – Indiana State University; Olga Imas – Milwaukee School of Engineering
> Atlantic Ballroom 1

Session Description

Three panelists from different technical disciplines will tell you how they folded system engineering into a capstone course to prepare students for dealing with the complexities of solving real world problems. At the conclusion of each panelist's presentation, we will have time for your questions and comments. This session will stimulate thinking about innovative ways to prepare students for their working life after graduation.

Accreditation Policies, Procedures, and Personnel

Partially Virtual Pilot Program

Neil Hutzler – Michigan Technological University; Hamid Fonooni – University of California–Davis; Randall Keller – Murray State University
> Atlantic Ballroom 2

Session Description

Given the popularity and the timeliness of the theme, this is an update of the session the Applied Science Accreditation Commission (ASAC) held last year. You will learn more about ASAC's experience doing a partially virtual pilot visit where only the Team Chair (TC) visits the campus and the Program Evaluators (PEVs) work remotely.

DISCUSSION DEN

Flint, Ethiopia and Mexico: Working to Build Better Communities and Foster Trust

Laura Sullivan – Kettering University;
Joe Palca (Mod) – NPR

Accreditation Policies, Procedures, and Personnel

An Interactive Workshop on Draft Program Criteria for Cyber Sciences

Raymond Greenlaw, Andy Phillips – United States Naval Academy;
Steven Lingafelt – IBM

> Atlantic Ballroom 3

Session Description

During this session, presenters will share the draft Program Criteria (Draft Criteria) for Cyber Sciences and solicit input for improving and refining the Draft Criteria. Discussions will focus on Student Outcomes, Curriculum, and Faculty Criteria. You will see the evolution of the draft to this point and have a chance to contribute and suggest modifications to the Draft Criteria.

Accreditation Policies, Procedures, and Personnel

Relevancy of Engineering Technology Program Criteria: A 360 Degree View

Subal Sarkar – ABET

> Diplomat Ballroom 1

Session Description

This session will review the relevancy of Engineering Technology Accreditation Commission (ETAC) program criteria and the requirements of program outcomes as exists today. The presenter will also examine the relevancy of engineering technology program criteria and their effectiveness to meet the future global needs. This interactive session will aim to generate discussions ranging from no program criteria to outcomes-based program criteria. We will also use this forum to gather ideas from the participants representing various ETAC constituents, including ABET member societies, Commissioners, Program Evaluators, program coordinators, industry representatives, and faculty from U.S. and international institutions.

50-MINUTE SESSIONS

1:30 PM – 2:20 PM

Best Practices in Program Assessment

Using Best Practices in Data Visualization to Improve Assessment Practice

Scott Dolan – Excelsior College

> Diplomat Ballroom 2

Session Description

This session is designed to introduce assessment practitioners to the growing field of data visualization and provide them with tools and resources on how to use data visualization to improve the assessment and evaluation process.

Best Practices in Program Assessment

Standardized, Streamlined Assessment Reporting Using Performance Vectors and Faculty Course Assessment Reports

John Estell – Ohio Northern University

> Diplomat Ballroom 3

Session Description

This session will cover the structure of the Faculty Course Assessment Report (FCAR), a short one- to two-page document containing a streamlined sequence of reporting categories including course modifications, outcomes assessment information, instructor reflection, and suggestions for course and/or curricular improvements. You will learn how to construct performance vectors from various forms of direct student outcomes assessment and how a sustainable, streamlined approach to student outcomes assessment can be readily implemented through the systematic use of a structured reporting document.

Disruption and Innovation in Technical Education

Selling Assessment: Successfully Managing Faculty Objections and Concerns

Frank Young – Rose-Hulman Institute of Technology; Ece Tadik Yaprak – Wayne State University

> Diplomat Ballroom 4

Session Description

Faculty with objections to assessment may reluctantly participate in the process. Even worse, some may refuse to do their assessment duties altogether. In this session, you will identify common faculty objections that can impact assessment effectiveness. Then the group will brainstorm ways that assessment can be explained and managed to convince faculty members that assessment will benefit the program and the students. The presenters will explain ways that assessment can be viewed and implemented as a valuable part of the expected professional practices of technical and engineering professionals.

Best Practices in Program Assessment

Assessment Techniques of Students' Softskills in Engineering

Daniela Viviana Vladutescu, Mohammed Kouar, Zory Marantz – New York City College of Technology of City University of New York

> Diplomat Ballroom 5

Session Description

Engineers prefer clear numerical values when it comes to the evaluation of any parameter or property. High temperatures and low voltages have no meaning unless they are associated with numbers and thresholds. This has been and continues to be one of the reasons many engineering educators face difficulties in assessing students' soft skills. In our presentation we discuss several successful techniques used in assessing the electrical and telecommunication engineering technology programs at NYCCT/CUNY. In particular we focus on different assessment techniques used to evaluate ABET student outcomes d and f through i at the associate level, as well as e and g through k at the bachelor level.

75-MINUTE SESSIONS

2:30 PM – 3:45 PM

Global Accreditation****Industrial Involvement in Technical Programs:
A Global Context***

Borko Furht – Florida Atlantic University; Ivan Esparragoza – Pennsylvania State University - Brandywine Campus; Lueny Morell – Lueny Morell & Associates and InnovaHiEd

> Atlantic Ballroom 1

Session Description

In many parts of the world, there is very little industrial involvement in education. This limits the amount of funding and in-kind donations an institution/program receives. Lack of industrial involvement in engineering education also creates a gap between students' academic experience and the needs of industry. The importance of industrial involvement in engineering education and accreditation efforts will be discussed. Industry/university project case studies, the formation and maintenance of industry advisory boards, and the fostering of a culture of industry investment in engineering education will be highlighted.

Disruption and Innovation in Technical Education****Strategies and Resources for Incorporating
Sustainability into Engineering Curricula***

Yvette Weatherton – University of Texas at Arlington; Angela Bielefeldt – University of Colorado Boulder; Cliff Davidson – Syracuse University

> Atlantic Ballroom 2

Session Description

There is a growing need to develop students' knowledge of and capabilities to perform sustainable design. Numerous resources are available for integrating sustainability into engineering curricula through modular, full course, and other approaches. This session will present existing resources and examples of classroom applications of tools, such as rating systems, that can be used to teach principles of sustainability in courses at all levels.

*Invited Presenters

DISCUSSION DEN

Ask ABET
Headquarters

*Joe Sussman, Jane
Emmet – ABET*

Disruption and Innovation in Technical Education

Practical Integration of Diversity and Inclusion Competencies into Engineering Education

Kristen Constant – Iowa State University

> Atlantic Ballroom 3

Session Description

In this session we explore the role of diversity and inclusion in engineering education. We will introduce definitions and framework, present data on the status of diversity and inclusion in both engineering education and in the workforce, discuss motivations for action, and evaluate strategies and opportunities. We propose that developing these competencies within engineering educational institutions as well as in engineering graduates is necessary to prepare the diverse multicultural workplace of the future and provide employers with an important competitive advantage.

Accreditation Policies, Procedures, and Personnel

Statement Writing Exercise

*Jeff Fergus – Auburn University; Patricia Brackin – Rose-Hulman
Institute of Technology*

> Diplomat Ballroom 1

Session Description

This session will provide you with practice and guidance on writing statements to reflect the appropriate shortcoming level.

75-MINUTE SESSIONS

2:30 PM – 3:45 PM

Accreditation Policies, Procedures, and Personnel

Consensus Out of Complexity

Gloria Rogers – ABET; Daina Briedis – Michigan State University

> Diplomat Ballroom 2

Session Description

ABET accreditation teams must make rational, evidence-based judgments of program compliance with ABET criteria. Of all the criteria, obtaining team consensus on the compliance with the continuous improvement criterion may be the most difficult due to the variety and quality of assessment and evaluation processes used by programs and the diverse backgrounds of the team members. During this interactive session, presenters will provide valuable guidance on effectively “measuring the pulse” of a program’s continuous improvement processes. You and fellow participants will be actively involved in judging scenarios and offering critiques of real-world examples.

Accreditation Policies, Procedures, and Personnel

Alternative Protocols for Conducting Accreditation Visits

Winston Erevelles – St. Mary’s University; Michael Oudshoorn – Wentworth Institute of Technology; R. Allen Miller – Ohio State University; Sherri Hersh – ABET

> Diplomat Ballroom 3

Session Description

This session will outline the processes used by ABET headquarters to determine the risks associated with some international visits. At the end of the session, you will understand what an Alternative Visit Protocol (AV Pro) is and when it is used. The presenter will also discuss how risk at a given location is identified and monitored, what needs to be done to prepare for an AV Pro and how these visits are conducted.

Global Accreditation*Two 25-Minute Presentations*

> Diplomat Ballroom 4

Merits and Drawbacks from Seeking Multiple Accreditations

Mohamed Kotb – Arab Academy for Science, Technology and Maritime Transport

Session Description

The session will focus on the advantages and disadvantages of seeking more than one accreditation system, a case more typical of engineering programs outside the United States. Presenters will describe the extra work needed to coordinate between the different required criteria of these systems in order to reduce faculty workload in assessing and evaluating student outcomes and, finally, to improve their performance. The presentation also aims at reaching a unified interpretation for the different terminology, rules, and criteria among different accreditation systems on the national and global levels.

**Creation and Initial Accreditation of Three Construction-Related Programs*

Nickolas Jovanovic – University of Arkansas at Little Rock

Session Description

This session will describe experiences in creating a comprehensive set of construction-related programs, developing program assessment processes, and preparing for initial accreditation. You will learn about situations when programs must satisfy more than one set of program criteria, how programs can meet non-curricular professional requirements, and national exams that can be used as part of program assessment.

*Invited Presenters

75-MINUTE SESSIONS

2:30 PM – 3:45 PM

Accreditation Policies, Procedures, and Personnel

Preparing the Self-Study Report for Engineering Technology

Frank Young – Rose-Hulman Institute of Technology

> Diplomat Ballroom 5

Session Description

This session will focus on how to complete the Self-Study questionnaire for the Engineering Technology Accreditation Commission (ETAC). At the end, you will be able to complete a Self-Study that accurately presents all necessary information and makes the visit more effective and useful for the program. Activities will include analysis of certain sections of the template, consideration of sample answers to difficult questions, and discussion of the reactions of Program Evaluators (PEVs) to certain language uses and answers. The goal of this session is to show how the Self-Study can be as useful to the program as it is to the visiting team.

50-MINUTE SESSIONS

4:10 PM – 5:00 PM

Accreditation Policies, Procedures, and Personnel

Joint and Simultaneous Visits

Paul Male – Hudson Valley Community College; Alice Greife – University of Central Missouri; J. Torey Nalbone – University of Texas at Tyler; Tom Kuckertz – ABET; Ron Doyle – IBM

> Atlantic Ballroom 1

Session Description

Representatives from each ABET Commission will be on hand to discuss the policies and procedures surrounding joint and simultaneous visits, with advice on preparing for such a visit.

Disruption and Innovation in Technical Education

Understanding and Realizing the Value of Systems Engineering Knowledge in the Education of All Engineers

Rick Adcock – Cranfield University; Peggy Brouse – George Mason University; Frank Hughes – SAE International Society; Larry Strawser – Johns Hopkins University

> Atlantic Ballroom 2

Session Description

Engineering educators all over the world are recognizing the value of folding systems engineering knowledge in at the undergraduate level. This panel will describe accomplishments in communicating that value to stakeholders, describing when and where to deliver systems engineering knowledge, and providing examples of how this is being accomplished. The Cranfield University (United Kingdom) educator spearheading this international initiative will provide you with an overview of the process. The goal of this session is to gather your feedback on the current direction of this initiative, insights into how this work could impact criteria used internationally, and identifying collaboration opportunities with accreditation organizations like ABET.

DISCUSSION DEN

Accreditation:
Moving Forward
Together with Quality
and Confidence –
Case Study

*Zenaida Otero
Gephardt – Rowan
University*

Disruption and Innovation in Technical Education

New Perspectives on Improving Systems Engineering Education

Phillip Brown – International Council on Systems Engineering; Nicole Hutchinson, Mike Pennotti, Richard Turner – Stevens Institute of Technology

> Atlantic Ballroom 3

Session Description

The Department of Defense (DOD), through its Systems Engineering Research Center (SERC), has funded nearly \$40 million in research since the SERC's founding in 2008. After an overview from SERC's Chief Technology Officer, three panel members will discuss their research with emphasis on how those findings either have been or could be integrated into university courses. With time provided for questions, you will discuss how systems engineering concepts can be integrated into your courses.

Best Practices in Program Assessment

**Learn How to Use the FE Exam for Effective Outcomes Assessment in All Engineering Disciplines*

John Steadman – University of South Alabama; Grant Crawford – Quinnipiac University

> Diplomat Ballroom 1

Session Description

The Fundamentals of Engineering (FE) exam is administered to thousands of engineering seniors and recent graduates each year and is the only uniform, nationally normed exam. National Council of Examiners for Engineering and Surveying (NCEES) Subject Matter Reports provide statistically significant comparisons and rich data for assessing students' performance in comparison to national norms in specific engineering content areas. This session will highlight best practices in outcomes assessment using the recently revised NCEES Subject Matter Reports to provide you with information about the strengths and weaknesses of students in a program.

*Invited Presenters

50-MINUTE SESSIONS

4:10 PM – 5:00 PM

Accreditation Policies, Procedures, and Personnel

How to Become a PEV

Charles Hickman, Frank Hart – ABET; Winston Erevelles – St. Mary's University

> Diplomat Ballroom 2

Session Description

Each year, more than 2,000 faculty and academic administrators, industry professionals, and government officials serve as ABET Program Evaluators (PEVs), making initial accreditation recommendations and working together to ensure quality in technical education worldwide. This session will provide you with information on how to become an ABET Program Evaluator (PEV). You will learn more about the nature of the work, discuss ABET's need for new PEVs, their "life-cycle"; and what's in it for you. Presenters will also go over threshold requirements for service, selection process, and training requirements.

Accreditation Policies, Procedures, and Personnel

Two 25-Minute Presentations

> Diplomat Ballroom 3

Readiness Review

Sherri Hersh – ABET

Session Description

If your institution has not had any ABET-accredited programs for a given commission, then your program will most likely need a Readiness Review prior to initiating the accreditation process. During this 25-minute session, the presenter will help you understand what a Readiness Review is, who needs to do it, what it takes, and how to get help. Don't miss it if you are seriously considering ABET accreditation.

Best Practices in Program Assessment*The Power of the Map and the Art of Asking for Directions*

Gloria Rogers – ABET

Session Description

One of the most overlooked processes in the continuous improvement cycle is the curriculum map. However, if a program can capture the potential of the development and use of the curriculum map, it will find that the quality of the conversations about student learning will increase dramatically. This session will focus on how the curriculum map can be designed to increase the efficiency and effectiveness of both the assessment and evaluation processes. Examples of how the data can be collected and reported will be provided.

Best Practices in Program Assessment*Hands-on the University Learning Assurance Database (Web-based) Application*

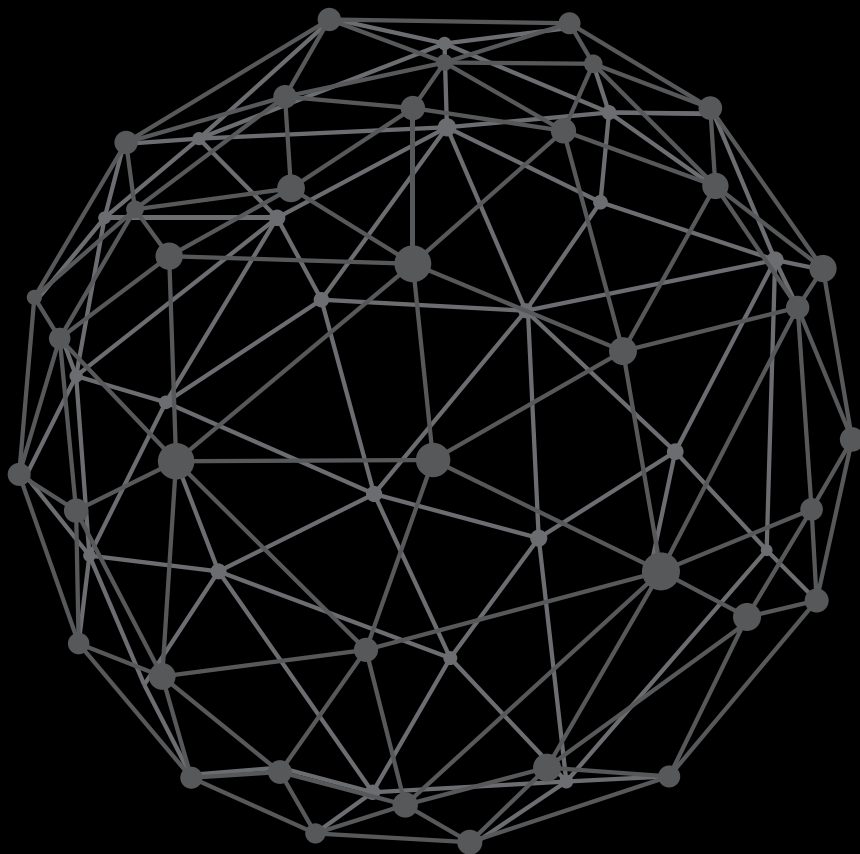
Denise Duncan, Robert Mason – Regis University

> Diplomat Ballroom 4

Session Description

The University Learning Assurance Database Application (LA DB) is a database application that university faculty developed to capture ABET data for continuous improvement of technology programs. During this interactive workshop, you will get hands-on experience using the LA DB and a first-hand look at how the application operationalizes the learning assurance process. At the end, presenters will discuss how the LA DB can be customized for other universities to make the product more extensible and solicit feedback for possible commercialization of the product.

SAVE THE DATE



2017

ABET SYMPOSIUM

BALTIMORE, MD APRIL 20-21

SCHEDULE AT-A-GLANCE

- 7:00 AM – 8:00 AM** Breakfast
> Great Hall 1
- 7:00 AM – 12:00 PM** Registration Open
- 8:10 AM – 9:00 AM** Concurrent Sessions
- 9:00 AM – 5:00 PM** Self-Study Report Room Open
> Conference Rooms 212-214
- 9:10 AM – 10:25 AM** Concurrent Sessions
- 10:25 AM – 10:45 AM** Networking Break

10:45 AM – 11:45 AM Concurrent Sessions

11:45 AM – 2:00 PM Lunch, Great Minds, Greater Impact
Plenary Discussion
> Great Hall 1

2:00 PM – 3:15 PM Concurrent Sessions

3:15 PM – 3:45 PM Networking Break

3:45 PM – 5:30 PM Commission Town Halls

SCHEDULE

	Atlantic 1	Atlantic 2	Atlantic 3	Diplomat 1
7:00 AM – 8:00 AM	<p>Breakfast > Great Hall 1</p>			
8:10 AM – 9:00 AM	<p>Disruptions and Innovations Repackaging Student Outcomes for Modern Global Engineering Practice <i>J. Keaton, D. Rover, P. Brackin</i></p>	<p>Best Practices (IDSS): Leveraging an effective assmnt process to provide relevant data in context to improve teaching and learning <i>D. McEachron</i></p>	<p>Disruptions and Innovations Skills Successful Systems Engineering Practitioners Need <i>P. Brown, D. Buede, F. Hughes, G. Cockrell</i></p>	<p>Disruptions and Innovations Re-Engineering Freshman Calculus in Response to Assessment <i>K. Sheppard, A. Miasnikov, M. Bruno</i></p>
9:10 AM – 10:25 AM	<p>Accreditation Policies Connecting the Dots: The CAC Criteria, Self-Study, and Visit <i>L. Mansfield, J. Aylor</i></p>	<p>Accreditation Policies Demonstrating Compliance with Criterion 4: Assessment and Evaluation (Repeat) <i>J. Turner</i></p>	<p>ABET Industry Advisory Council Creating Internship Programs That Work <i>J. Abell</i></p>	<p>Global Accreditation *Diversity & Inclusion: A Global Perspective <i>E. Allen, R. Tull, L. Morehouse, L. Morell</i></p>
10:25 AM – 10:45 AM	<p>Networking Break</p>			
10:45 AM – 11:45 AM	<p>Accreditation Policies Updates to the ABET Computing Accreditation Criteria <i>A. Parrish, S. Thomas</i></p>	<p>Best Practices 1) *Intercultural Competency in E-learning Evt. 2) *Engaging Students Through Learning Strategies 3) *Sustainable Assmnt. & Eval Processes</p>	<p>Accreditation Policies We Are Interested in Seeking ABET Accreditation: Are We Ready? (Repeat) <i>W. Erevelles</i></p>	<p>Accreditation Policies Criterion 4 Expectations: Bridging the Gap <i>S. Danielson</i></p>

*Invited Presenters

Diplomat 2

Diplomat 3

Diplomat 4

Diplomat 5

7:00 AM – 8:00 AM

Best Practices

Comprehensive Sustainable Outcomes Assessment and Evaluation Practices for QA
M. Malik, H. Ghulman

Accreditation Policies

*Natural Science Accreditation
L. Kaye, H. Fonooni, F. Rodriguez

Accreditation Policies

Preparing Industry-Ready Graduates Using Learning Analytics Tools & ABET Guidelines
P. Khandekar, S. Jejurikar

Disruptions and Innovations

Revolutionizing Controls Courses on a Budget with Microcontrollers
D. Clippinger

8:10 AM – 9:00 AM

Global Accreditation

- 1) Meet ABET Standards as a European Program
- 2) Adding ABET Accreditation to Mexico/Regional Accreditation
- 3) Internationalizing Indian Engineering Education

Accreditation Policies

*Natural Science Accreditation
D. Briedis, M. Lanzerotti, N. Jovanovic, J. Cezeaux, T. Laird, R. Lovell

Accreditation Policies

Preparing for the Site Visit-ETAC
J. Sammarco

Disruptions and Innovations

- 1) Engineering Solutions Through an Int'l Service
- 2) Brief Comparison of AUN-OA and ABET Accreditation Approaches
- 3) Virtual IT Internship Benefits/Outcomes

9:10 AM – 10:25 AM

Discussion Den

Preparing Students to Meet the Needs of Our Constituents – Building Excellence at a Hispanic-Serving Institution
W. Erevelles

10:25 AM – 10:45 AM

Accreditation Policies

ABET Diversity and Inclusion Listening Session
E. Allen, L. Herger, C. Isbell, A. Saxena, D. Tomasko, D. Beranek, W. Hermina, I. McPhail, K. Constant

Accreditation Policies

*Natural Science Accreditation
A. Greife, L. Hernandez Alvarado, A. Reid, T. McGhee

Global Accreditation

- 1) Preparing a Self-Study Report
- 2) Global Undergrad Engineering Curriculum for the Future at PMU in KSA
- 3) Using Taskstream as an Efficient Assessment and Self-Study Preparation Tool

Global Accreditation

*International Accreditors Forum
A. Özgüler, D. Seddon, L. Sanchez Alvarez

10:45 AM – 11:45 AM

*Invited Presenters

SCHEDULE (cont.)

	Atlantic 1	Atlantic 2	Atlantic 3	Diplomat 1
11:45 AM – 2:00 PM	Lunch, Great Minds, Greater Impact Plenary Discussion > Great Hall 1			
2:00 PM – 3:15 PM	Disruptions and Innovations Global Engineering for Developing Communities: Certification Program <i>C. Leslie</i>	Best Practices 1) Utilizing Multiple Coordinators to Create a Culture of Assessment 2) Professional Advisor's Role in the Assessment Process		Accreditation Policies ETAC Criterion 3 - Time for a Change? <i>W. Gautreaux</i>
3:15 PM – 3:45 PM	Networking break			
3:45 PM – 5:30 PM	Accreditation Policies Commission Town Halls EAC	Accreditation Policies Commission Town Halls CAC	Accreditation Policies Commission Town Halls ETAC	

Diplomat 2

Diplomat 3

Diplomat 4

Diplomat 5

11:45 AM – 2:00 PM

Best Practices

- 1) Total Quality Approach to Develop Robust & Sustainable Assessment Process
- 2) ETAC of ABET Assmnt Demystified
- 3) Why Grading Can't be Used for Assessment, Except When It Can

Accreditation Policies

Demonstrating Compliance with Criterion 4: Closing the Loop
D. Briedis

Accreditation Policies

Accrediting Programs Under ASAC's General Criteria
J. Torey Nalbone, R. Soule

Best Practices

- 1) Building Assessment Functions into LMS
- 2) Management and Visualization of Assessment Data
- 3) Assessing Student Outcomes Using a Sustainable Assmnt & Eval Platform

2:00 PM – 3:15 PM

Discussion Den

Engineering Better Education Through Effective Assessment
James Warnock – ABET

3:15 PM – 3:45 PM

3:45 PM – 5:30 PM

Accreditation Policies
Commission Town Halls
ASAC

50-MINUTE SESSIONS

8:10 AM – 9:00 AM

Disruption and Innovation in Technical Education

Repackaging Student Outcomes for Modern Global Engineering Practice

Jeffrey Keaton – Amec Foster Wheeler; Patsy Brackin – Rose-Hulman Institute of Technology; Diane Rover – Iowa State University

> Atlantic Ballroom 1

Session Description

Current Student Outcomes remain unchanged since the shift to outcomes-based education in the late 1990s, yet new demands on engineering practice continue to emerge. In this session, we will go over the process that led to the proposed Student Outcomes for engineering programs. As a participant, you will engage in a discussion of what works for current Student Outcomes and what will be challenging with the proposed Student Outcomes.

Best Practices in Program Assessment

Instructional Decision Support System (IDSS): Leveraging an Effective Assessment Process to Provide Relevant Data in Context to Improve Teaching and Learning

Donald McEachron – Drexel University

> Atlantic Ballroom 2

Session Description

In higher education, courses and instructors are often functionally siloed and students fail to see the connections between curricular elements. In an effort to address these issues, a complete assessment management solution approach and software are being designed and implemented to create “learning outcomes transcripts,” which transcend individual courses and educational experiences. By providing developmentally relevant feedback to students in real-time, these transcripts may promote significant student ownership of learning outcomes, creating a stronger sense of purpose and curricular continuity. That, in turn, should promote more effective student learning and academic performance.

Disruption and Innovation in Technical Education

Skills Successful Systems Engineering Practitioners Need

Phillip Brown – Systems Engineering Associates, Inc.; Dennis Buede – Innovative Decisions, Inc.; Frank Hughes – SAE International Society; Gerald Cockrell – International Society of Automation

> Atlantic Ballroom 3

Session Description

Panelists representing INCOSE, an ABET member society, will relate their experiences on projects where systems engineering played a major role. Using these examples, each panelist will identify the critical skills of the systems engineers on the team that contributed to project success. This session will provide you with insights into how the identified critical skills of systems engineers contributed to the solution of the complex practical problems encountered. Your participation is highly encouraged.

Disruption and Innovation in Technical Education

Re-Engineering Freshman Calculus in Response to Assessment

Keith Sheppard, Alexei Miasnikov, Michael Bruno – Stevens Institute of Technology

> Diplomat Ballroom 1

Session Description

During this session, the presenter will share a case study that illustrates the impact assessment has on the teaching of the foundational mathematics courses, which are core to engineering and science undergraduate programs. In this specific case, assessment led to a school-level response that has achieved a dramatic improvement in learning by fundamentally changing the way these courses are taught.

50-MINUTE SESSIONS

8:10 AM – 9:00 AM

Best Practices in Program Assessment

Comprehensive Sustainable Outcomes Assessment and Evaluation Practices for Quality Assurance

Muhammad Malik, Hamza A. Ghulman – Umm Al-Qura University
> Diplomat Ballroom 2

Session Description

Presenters will exhibit comprehensive sustainable assessment and evaluation practices used across the electrical engineering curriculum in courses offered at different levels to assess the achievement of two student outcomes, the ability to function on teams effectively, and the ability to communicate effectively. You will learn how to develop different assessment processes for Professional Student Outcomes and Program Quality Assurance; utilize assessment examples for evaluation, analysis, and usage; be able to embed professional outcomes and skills in the assessment process; and use problem-based mini projects and case study illustrations to come up with your own examples to assess students' professional outcomes.

Accreditation Policies, Procedures, and Personnel

**Natural Science Accreditation*

Larry Kaye – ABET; Hamid Fonooni – University of California–Davis; Francisco Medellin-Rodriguez – Universidad Autonoma de San Luis Potosi
> Diplomat Ballroom 3

Session Description

ABET accredits programs in the natural sciences under the Applied Science Accreditation Commission (ASAC) general criteria. Currently, there are two such accredited programs: one in Applied Physics and one in Petroleum Science. Lately, other programs in the natural sciences, mathematics and statistics have expressed considerable interest in accreditation. This session will address the benefits of accreditation for the natural sciences, mathematics and statistics. The presenters will share their views on the value of accreditation from both a domestic and international perspective. The following two sessions will present panel discussions on the appropriateness of accreditation for natural science programs and describe how such programs can comply with the ASAC general criteria.

*Invited Presenters

Accreditation Policies, Procedures, and Personnel

Preparing Industry-Ready Graduates Using a Learning Analytics Tool & ABET Guidelines

Prasad Khandekar – Vishwakarma Institute of Information Technology; Sanjay Jejurikar – InPods Inc.

> Diplomat Ballroom 4

Session Description

This session will present the results of implementing an approach to identify and prepare the right student as per the competencies required by the industry using a software tool and ABET guidelines. This approach will be beneficial to program directors/deans to enhance the industry readiness of the student, placement officers to suggest the right student candidates for the right type of industry, and industry personnel by saving time on preliminary screening based on competency requirements.

Disruption and Innovation in Technical Education

Revolutionizing Controls Courses on a Budget with Microcontrollers

David Clippinger – United States Coast Guard Academy

> Diplomat Ballroom 5

Session Description

Learn how to build a simple controls demonstrator from everyday materials. This session will introduce you to commercially available micro-controller parts kits and open source software alternatives to the expensive hardware and software normally associated with controls or instrumentation courses. Student ownership is an effective method of managing costs while having the interesting byproducts of increased relevance, participation, understanding, and enthusiasm for the material, which together contribute to higher outcome achievement.

75-MINUTE SESSIONS

9:10 AM – 10:25 AM

Accreditation Policies, Procedures, and Personnel

Connecting the Dots: The Computing Accreditation Commission (CAC) Criteria, Self-Study and Visit

Lois Mansfield – Raytheon Company; Jim Aylor – University of Virginia

> Atlantic Ballroom 1

Session Description

This session will enable programs undergoing a comprehensive review to understand the role of the on-site review in verifying compliance with the Computing Accreditation Commission (CAC) criteria.

Accreditation Policies, Procedures, and Personnel

Demonstrating Compliance with Criterion 4: Assessment and Evaluation (Repeat)

Joe Turner – Clemson University

> Atlantic Ballroom 2

Session Description

Intended primarily for faculty and administrators of programs planning for an ABET accreditation review, the focus of this session will be on the evaluation of a program relative to Criterion 4, Continuous Improvement. Expectations of Program Evaluators (PEVs) for demonstrating compliance with various aspects of Criterion 4 will be discussed and demonstrated. You are encouraged to participate in the discussion and ask questions. The objective of the session is to help programs understand better how to demonstrate and document a continuous improvement process in order to satisfy Criterion 4, and how to present evidence of a good continuous improvement process effectively to PEVs.

75-MINUTE SESSIONS

9:10 AM – 10:25 AM

ABET Industry Advisory Council

Creating Internship Programs That Work

Jeff Abell – General Motors

> Atlantic Ballroom 3

Session Description

Internships are a crucial part of the college experience, as they expose students to “corporate life” and prepare them to enter the profession. Defining appropriate outcomes of internship programs for students, finding the industry partner, and implementing tactics to assure that the relationship benefits both engineering schools and employers are the focus of this session.

Global Accreditation

**Diversity & Inclusion: A Global Perspective*

Moderator: Emily Allen – Cal State Los Angeles; Lawrence Morehouse – University of South Florida; Lueny Morell – InnovaHiEd; Renetta Tull, University of Maryland Baltimore County

> Diplomat Ballroom 1

Session Description

Diversity does not have the same meaning throughout the world. However, the value of diversity in education and in sustainable growth and profitability in the private sector is clear. Diversity in education improves education quality for all students and enhances programs’ accreditation efforts. Global diversity will be explored and similarities and differences throughout the world will be discussed. How schools throughout the world achieve their own diversity goals, and strategies to enhance diversity will be presented. Lack of diversity in technical higher education is prevalent in and outside the U.S. and impacts the quality of education and resources available to students. This session highlights the value of a diverse and inclusive environment to the quality of education.

*Invited Presenters

DISCUSSION DEN

Preparing Students to Meet the Needs of Our Constituents – Building Excellence at a Hispanic-Serving Institution

Winston Erevelles – St. Mary's University

Three 25-Minute Presentations

> Diplomat Ballroom 2

Global Accreditation

How to Meet ABET Standards as a European Program: Lessons Learned

Kamilla Trubicki, Michael Rabl – University of Applied Sciences Upper Austria

Session Description

This session will share the presenters' experience with preparing for ABET accreditation and dealing with various pitfalls during five years of ABET preparations. It will include background information on the program, the framework in which it is situated, and explain the motivation for seeking ABET instead of the European EUR-ACE accreditation. Presenters will also explain how to overcome potential issues that might arise for international programs during the ABET accreditation preparation process.

Adding ABET Accreditation to Mexico and Regional Accreditation

Benito Corona-Vasquez – Universidad de las Americas Puebla

Session Description

This session explains how one university reduced effort by recycling information from its national and regional accreditations for ABET accreditation. It describes the process used to meet ABET's unique requirements, including information about who sponsored the ABET initiative and what resources were required to get it done. Presenters will also describe the best practices and changes this university plans to implement as additional programs undertake the ABET accreditation process. In addition, the program will share examples of improvements to student learning that were implemented as a result of initiating the ABET accreditation process.

(Continued)

75-MINUTE SESSIONS

9:10 AM – 10:25 AM

Disruption and Innovation in Technical Education

Internationalizing Indian Engineering Education for Global Competencies, Global Degrees, and Global Jobs

K.V. Lakshmipathi Raju – Maharaj Vijayaram Gajapathi Raj College of Engineering; Mahadevan Ramachandran – Aasaan eduCare

Session Description

The session will deal with the projected model, the first of its kind in India. The modalities of implementation of the model are in progress at Maharaj Vijayaram Gajapathi Raj College of Engineering. The model foresees the positive impact of disruption in conventional Indian technical education and enables global competencies among Indian engineers.

The intended takeaways from the session will be exposure to this novel approach for the global educationists and audience, to enable provision of engineering education without national boundaries. The session will pave the way for collaborative approaches between Indian and international institutions, facilitating students and faculty exchange programs.

Accreditation Policies, Procedures, and Personnel

**Natural Science Accreditation*

Daina Briedis – Michigan State University; Mary Lanzerotti – Air Force Institute of Technology; Nickolas Jovanovic – University of Arkansas at Little Rock; Judy Cezeaux – Western New England University; Thomas Nelson Laird – Indiana University; Ron Lovell – IBM

> Diplomat Ballroom 3

Session Description

This session continues the discussion on accreditation of natural science, mathematics and statistics programs. The five-member panel will address the question “Is ABET accreditation appropriate and beneficial for natural and applied science programs?” Panel members represent a variety of viewpoints including those of natural science programs considering accreditation, a regional accreditor, an educational researcher and an industry representative. Each panel members will share his or her perspective and then the session will be opened up to a dialog with panelists and the audience.

*Invited Presenters

Accreditation Policies, Procedures, and Personnel

Preparing for the Site Visit – ETAC

John Sammarco – National Institute for Occupational Safety and Health (NIOSH)

> Diplomat Ballroom 4

Session Description

This highly interactive session will enable you to respond to questions posed by the presenter in real time. At the end, you will have a clear understanding of pre-visit planning and activities, visit activities and processes, and post-visit activities. This will ensure that your program will make the most effective use of your resources for accreditation purposes.

Three 25-Minute Presentations

> Diplomat Ballroom 5

Disruption and Innovation in Technical Education

Understanding Context of Engineering Solutions Through an International Service-Learning Experience

Laura Lackey – Mercer University

Session Description

This session will focus on an international service-learning (ISL) program focused on creating and providing sustainable and appropriate solutions to social justice issues. The program provides a unique course option that blends service learning and study abroad. Students in the program have designed prosthetics for amputees in Vietnam; installed and tested point-of-use water filter systems in Kenya; and constructed and implemented manual well-drilling techniques in Uganda and Ethiopia. Through this presentation, you will examine a service-learning strategy that integrates cultural, social, health and safety, and global issues within an existing engineering education program.

(Continued)

75-MINUTE SESSIONS

9:10 AM – 10:25 AM

Global Accreditation

Brief Comparison of AUN-QA and ABET Accreditation Approaches

Scott Danielson – ABET

Session Description

This session will outline the similarities and differences of ASEAN University Network accreditation (AUN-QA) and ABET accreditation. You will gain an understanding of the philosophical differences between ABET and AUN-QA accreditation and identify the similarities and differences between ABET's assessment and evaluation requirements and the AUN-QA model for program accreditation.

Disruption and Innovation in Technical Education

Virtual IT Internship Program Benefits and Outcomes

Kristina Setzekorn – Kaplan University

Session Description

This session will discuss the development, structure and outcomes of a virtual Information Technology (IT) internship. In 2012, the School of Business started a student consulting service. This student-operated business was aimed at providing interns opportunities to design, manage, improve, sell and deliver products and services for government, not-for-profit, and small business entities. IT students were engaged as an afterthought, mainly entering data, but when the two schools merged in 2014, the IT interns got their own department, with senior-level reporting. This development conferred more autonomy to organize and contribute at a higher level, and to also acquire more resources and opportunities. These internships are now classes in the associate's, bachelor's, and master's degree programs. This initiative connects practice to theory in various reflective learning exercises, self-actualization exercises, career planning exercises, and competency-based assessments. The presenter will share these learning outcomes, trends, and other measures during this session.

60-MINUTE SESSIONS

10:45 AM – 11:45 AM

Accreditation Policies, Procedures, and Personnel

Updates to the ABET Computing Accreditation (CAC) Criteria

Allen Parrish – University of Alabama; Stan Thomas – ABET

> Atlantic Ballroom 1

Session Description

This session will provide you with an opportunity to critique changes to the Computing Accreditation (CAC) Criteria that are currently in progress. Changes include modifications to the way Student Outcomes are addressed in our Criteria, as well as specific Program Criteria changes to reflect ongoing modernizations to computer science as a discipline.

Three 20-Minute Presentations

> Atlantic Ballroom 2

Best Practices in Program Assessment

**Assessing Intercultural Competency in an E-learning Environment*

Jenny Amos, Hannah Choi – University of Illinois at Urbana-Champaign

Session Description

The need for cultural competency is expanding beyond the number of students supported by traditional study abroad programs. In partnership with an African university, this project utilizes global health as the paradigm to pursue a novel e-learning environment and develop capacity for international interdisciplinary translation. The presenter will share a study that extensively analyzes students' learning progress in intercultural competence, using data from both quantitative and qualitative methods to assess student learning. This study emphasizes translating skills between disparate groups - be it a cultural, academic, or physical separation – as fundamental skills for the students of tomorrow.

*Invited Presenters

Disruption and Innovation in Technical Education

**Engaging Students Through Active Learning Strategies: Teaching Professional Skills and the Navigation of Social and Political Context of Professional Activities*

Wanda Minnick – Indiana University of Pennsylvania

Session Description

As educators, we strive to create applied and realistic learning opportunities for our students. To do so, traditional lecture-based classrooms are evolving to include more discussion, simulation, teamwork and activities, while still maintaining satisfactory Student Outcomes. This session will briefly explore active learning theory and the literature on its effectiveness. Presenters will primarily focus on examples of active learning strategies that can be applied in the classroom. Specific topic areas will include professional skill development and the navigation of the social and political context of professional activities.

Accreditation Policies, Procedures, and Personnel

**Developing Sustainable Assessment and Evaluation Processes*

Janna Vice – Eastern Kentucky University

Session Description

Academic leaders are responsible for establishing an effective process for assessing student learning. When accrediting teams review an academic program, they determine whether the program has used assessment data to make meaningful changes for continuous improvement. This presentation will describe how one institution won the 2014 Council on Higher Education Accreditation's (CHEA) Award by engaging faculty to establish an assurance-of-learning culture.

*Invited Presenters

60-MINUTE SESSIONS

10:45 AM – 11:45 AM

Accreditation Policies, Procedures, and Personnel

We Are Interested In Seeking ABET Accreditation: Are We Ready? (Repeat)

Winston Erevelles – St. Mary's University

> Atlantic Ballroom 3

Session Description

Considering ABET accreditation for the first time? You cannot miss this session, where you will gain a firm understanding of the foundational processes and procedures of the ABET accreditation process. You will learn what is needed to prepare for the initial accreditation of a program and where to turn for further information. During the session, we will go over the entire process of ABET accreditation - from how to apply, to the purpose of the Self-Study Report and what to expect during the on-site visit. You will also understand what a due process response entails and when to expect the final decision.

Accreditation Policies, Procedures, and Personnel

Criterion 4 Expectations: Bridging the Gap

Scott Danielson – ABET

> Diplomat Ballroom 1

Session Description

This session will help bridge the gap between what ABET teaches program personnel about assessment and evaluation and what our Team Chairs (TCs) and Program Evaluators (PEVs) may know about recommended approaches to assessment and evaluation. Such a gap can inhibit providing meaningful feedback to programs during evaluations, so the goal of this session is to enhance PEV understanding of sustainable Student Outcome assessment via direct evidence gathered by using performance indicators and performance targets. Presenters will demonstrate a straightforward mechanism for appropriately summarizing the data and enabling evaluation of those data.

Accreditation Policies, Procedures, and Personnel

ABET Diversity and Inclusion Committee Listening Session

Emily Allen – Cal State Los Angeles; Charles Isbell – Georgia Tech College of Computing; David Tomasko – Ohio State University; Dwight Beranek – Chair of ABET IAC; Wahid Hermina – Sandia National Labs; Ashok Saxena – University of Arkansas; Lorraine Herger – IBM Research; Irving McPhail – NACME; Kristen Constant – Iowa State University
> Diplomat Ballroom 2

Session Description

ABET has created an ad hoc diversity and inclusion committee, charged to review and affirm or recommend revision to ABET's policy on diversity and inclusion; to reconsider ABET's role in supporting diverse learner populations within the broad range of ABET-accredited programs; and to make recommendations to the ABET Councils in this regard. This session will be conducted by members of the diversity and inclusion committee to gather input from conference attendees regarding these issues.

Accreditation Policies, Procedures, and Personnel

**Natural Science Accreditation*

Amanda Reid – ABET; Alice Greife – University of Central Missouri; Laura Angelica Hernandez Alvarado – Universidad Autonoma de San Luis Potosi; Tim McGhee – Chattanooga State Community College
> Diplomat Ballroom 3

Session Description

This is the third session on accreditation of natural science programs. The first session presented information on the value of accreditation from both a domestic and international perspective. The second session was a panel discussion addressing the appropriateness and benefit of ABET accreditation for natural and applied science programs. This session is again a panel discussion on "Complying with ASAC General Criteria". Attendees will learn what the requirements are for accreditation under ASAC general criteria and the proposed new criteria that are more inclusive of programs in the natural sciences and mathematics. In addition, representatives from natural and applied science programs will describe their approaches to complying with the criteria. Each panel members will share his or her perspective and then the session will be opened up to a dialog with panelists and the audience.

*Invited Presenters

60-MINUTE SESSIONS

10:45 AM – 11:45 AM

Three 20-Minute Presentations

> Diplomat Ballroom 4

Best Practices in Program Assessment

Preparing a Self-Study Report: The Role of an Annual Assessment, Evaluation and Documentation Process

Zia Yamayee – University of Portland

Session Description

This session will focus on the assessment and evaluation of Student Outcomes (SOs), and how the results can be used to prepare your Self-Study Report for an ABET accreditation visit. This session will teach you how to select direct and indirect assessment methods for assessing SOs, assess and evaluate SOs, use benchmark course assessment to streamline assessment of SOs, and use the results to identify program improvements and document the results annually.

Global Accreditation

Global Undergraduate Engineering Curriculum for the Future: Prince Mohammad Bin Fahd University, Saudi Arabia

Jamal Nayfeh – Prince Mohammad Bin Fahd University

Session Description

The session describes the main features of the engineering curriculum at Prince Mohammad Bin Fahd University, a recently established university overseas. Programs at the university serve local, national, and regional industry. Presenters will share their experiences in designing and implementing an engineering curriculum that meets ABET accreditation standards. You will walk away with best practices for new overseas programs.

Best Practices in Program Assessment

Streamlining the Task: Using Taskstream as an Efficient Assessment and Self-Study Preparation Tool

Orla Wilson – Johns Hopkins University

Session Description

During the summer of 2015 the Whiting School of Engineering at Johns Hopkins University started to work with Taskstream, a company providing cloud-based software for assessment and accreditation both nationally and internationally. Each department runs and maintains its own Workspace within Taskstream where assessment planning and alignment of student outcomes can be constantly refined. Each department also has its own self-study report template in an additional workspace that serves as a repository and can be populated, piecemeal, continuously. This session will discuss the tunability, flexibility and organization of the workspaces and repository in addition to demonstrating faculty buy-in and engagement.

Global Accreditation

**International Accreditors Forum*

Arif Bülent Özgüler – MUDEK – Turkey; Deborah Seddon – Engineering Counsel – United Kingdom; Luis Sanchez Alvarez – FMID – Madrid, Spain
> Diplomat Ballroom 5

Session Description

Approaches to accreditation vary globally. This session will explore accreditation systems of technical education throughout the world. Technical education accreditors will discuss methods and strategies and share their systems' characteristics. Similarities, differences, and challenges associated with different countries and environments will be discussed. Best practices will be highlighted.

*Invited Presenters

75-MINUTE SESSIONS

2:00 PM – 3:15 PM

Disruption and Innovation in Technical Education

**Global Engineering for Developing Communities: Certification Program*

Cathy Leslie – EWB-USA

> Atlantic Ballroom 1

Session Description

Envision a future where 1,000 students graduate annually with a certification documenting their global engineering skills. Engineers Without Borders USA (EWB-USA) is developing a Global Curriculum for individuals who wish to do meaningful volunteer work in developing communities. The curriculum complements the traditional engineering bachelor of science degree by expanding the students' practical knowledge and skills in leading, planning, designing, implementing, and evaluating small-scale, community-driven projects. The program was designed to incorporate recommendations from ABET and the National Academy of Engineering's *The Engineer of 2020*. As such, it provides the knowledge and skills that industry expects a global engineer to show upon graduation.

Two 25-Minute Presentations

> Atlantic Ballroom 2

Best Practices in Program Assessment

Utilizing Multiple Types of Coordinators to Help Create a Culture of Assessment

Evelyn Brown, Barbara Muller-Borer – East Carolina University

Session Description

In this session, presenters will discuss assessment techniques to involve a wide range of faculty in the assessment process. At the same time, you and other participants will relate your program needs to one another and determine how coordinators could aid their assessment. You will gain an understanding of the roles of concentration coordinators, course coordinators, and outcome coordinators, determine the appropriateness of including each type of coordinator in your assessment, share frustrations regarding lack of faculty participation in institution-wide assessment efforts, and collaborate to determine how to implement changes that create a culture of assessment.

*Invited Presenters

Professional Advisor's Role in the Assessment Process

Kathy Shepherd, Murali Medidi – Georgia Southern University

Session Description

Professional advisors can disrupt the “normal feedback” available for a program in its assessment process. The purpose of this session is to provide a case study where a collaborative relationship between a professional advisor and academic department contributed positively to a successful re-accreditation process. Presenters will discuss potential ideas for integrating the professional advisor into the assessment process.

Accreditation Policies, Procedures, and Personnel

ETAC Criterion 3 - Time for a Change?

Wilson Gautreaux – Trident Technical College

> Diplomat 1

Session Description

The Engineering Technology Accreditation Commission (ETAC) is considering possible changes on Criterion 3 to improve the accreditation process. A streamlined Criterion 3 could improve program focus and help reduce assessment burden. In this session, you will be asked to participate and discuss the advantages and disadvantages of this approach.

75-MINUTE SESSIONS

2:00 PM – 3:15 PM

Three 25-Minute Presentations

> Diplomat Ballroom 2

Best Practices in Program Assessment

A Total Quality Approach to Develop a Robust and Sustainable Assessment Process

Ahmet Yigit – Kuwait University

Session Description

This session will present a college-wide assessment process that has been developed and implemented successfully in a large engineering college for the last three accreditation cycles. This session will walk you through the full process, including identifying essential Total Quality Management (TQM) concepts that can be incorporated into an outcomes assessment process, selecting and designing assessment processes appropriate for a large engineering college, using existing structures and processes in designing an assessment process, and identifying means to create a continuous assessment culture to sustain the process.

ETAC of ABET Assessment Demystified

Seyed Akhavi – Mohawk Valley Community College

Session Description

Effective assessment process depends on having a culture of assessment, which in turn requires a culture of collegiality. A meaningful assessment process can enhance both cultures and create an encouraging environment. This session is designed to provide a step-by-step approach to the assessment process by highlighting essential components of the process and discussing details that are often neglected.

Why Grading Can't be Used for Assessment, Except When It Can

Michael Misovich – Hope College

Session Description

The session will describe problems and pitfalls that frequently preclude the use of grades for direct assessment and suggest situations and strategies by which traditional grading may provide valid and authentic measurements of Student Outcomes. Brief statistical analysis of some case study data will be presented as evidence. You will learn to compare and contrast typical outcome measurements classified as “grading” or “assessment,” some simple statistical methods useful in providing evidence for validity of diverse assessment measurements, and how to design assessment plans that use diverse measurements, including grading in a meaningful and sustainable way.

Accreditation Policies, Procedures, and Personnel

Demonstrating Compliance with Criterion 4: Closing the Loop

Daina Briedis – Michigan State University

> Diplomat Ballroom 3

Session Description

The ABET accreditation process emphasizes the important connection between assessment and continuous improvement. Our Criteria require that programs use systematic, documented processes to assess and evaluate Student Outcomes, and to use the evaluation results for continuous improvement. The benefits of closing the loop reach beyond compliance with criteria and promote improvements in teaching and learning. But how useful are the assessment processes that we use? This session will present the elements of an effective and sustainable assessment process that provides the foundation for robust evidence-based improvement at the program level.

75-MINUTE SESSIONS

2:00 PM – 3:15 PM

Accreditation Policies, Procedures, and Personnel

Accrediting Programs Under ASAC's General Criteria

*J. Torey Nalbome – University of Texas at Tyler; Robert Soule – Indiana
University of Pennsylvania*

> Diplomat Ballroom 4

Session Description

As the Applied Science Accreditation Commission (ASAC) moves into new terrain with accreditation of natural science and recently construction management programs, it has devised protocols for handling requests from programs not applying under already-approved program criteria. In this session, we will discuss the process that ASAC uses in determining whether a program is appropriate for such evaluation. You will learn more about the process and how ASAC determines whether or not a program is appropriate for evaluation.

Three 25-Minute Presentations

> Diplomat Ballroom 5

Best Practices in Program Assessment

Building Assessment Functions into LMS for Efficient and Sustainable Accreditation Processes

*Chengyu Sun, Raj Pamula, Russell Abbott – California State University,
Los Angeles*

Session Description

This session will present an open-source web-based software system developed at California State University, Los Angeles that tightly integrates program assessment functions in a learning management system (LMS). Presenters will show how such a system can greatly reduce the time and resources required to collect, analyze, and present assessment data, so that your institution can focus more on perfecting the assessment process and improving teaching and learning. Furthermore, building assessment functions into LMS, which many faculty and students use on a daily basis, also encourages and facilitates a continuous and sustainable assessment process.

Management and Visualization of Assessment Data

Hongbo Zhou, Deborah Whitfield, Raed Seetan – Slippery Rock University; Lianjun Chen – Shanghai Jianqiao University

Session Description

The management and visualization of assessment data is essential to the assessment and accreditation process. This session will highlight the effectiveness and user-friendliness of data management and visualization based on web graphic techniques and using a relational database system.

Assessing Student Outcomes Using a Sustainable Assessment and Evaluation Platform

Michael Eggeman, Christopher Kemp – New England Institute of Technology & Brown University

Session Description

The accreditation process can prove to be a massive task and can be overwhelming for some institutions. This session will explore a web-based application that provides better methods for data collection, reporting, survey distribution, and improved accuracy and timeliness, but more importantly has saved money and made the process less burdensome for faculty institution-wide. The session will offer an overview of the issues that our institution faced during preparation for ABET review, details of the software that was implemented to improve our old method's shortcomings and a demonstration of the application.

FUNDAMENTALS OF PROGRAM ASSESSMENT

APRIL 16, 8:30 AM – 4:30 PM

> Atlantic Ballroom 3

Workshop Description

Working in small groups, you learn to design assessment processes, develop measurable student outcomes, and apply data collection and data reporting methods.

Our facilitators are highly experienced faculty with wide-ranging experience in assessment and evaluation. This workshop focuses primarily on ABET Criterion 2: Program Educational Objectives, Criterion 3: Student Outcomes, and Criterion 4: Continuous Improvement.

After the workshop, you will receive a booklet containing all slides and reference materials so you can review what you've learned and apply it to your program back at home.

The workshop prepares you to:

- > Identify key elements of a functional assessment process.
- > Clarify the similarities and differences between course and program assessment.
- > Make student outcomes measurable with the development of performance indicators.
- > Understand the methods and measures to assess student outcomes.
- > Develop rubrics to assist in evaluating student performance in achieving student outcomes.
- > Understand the pros and cons of various data collection methods.
- > Review an example of reporting your results.

Here is a brief outline of the day:

- > Principles of Student Learning
- > Context for Assessment
- > Review of Program Educational Objectives
- > Performance Indicators: Making Student Outcomes Measurable
- > Assessment Methods to Collect Evidence of Student Learning
- > Continuous Improvement: Data Collection, Planning & Data Reporting

Cost – \$495, includes lunch and all materials

ADVANCED PROGRAM ASSESSMENT

APRIL 16, 8:30 AM – 4:30 PM

> Diplomat Ballroom 1

Prerequisites

Fundamentals of Program Assessment or IDEAL

Workshop Description

If you have already attended an ABET Fundamentals of Assessment Workshop and are confident in your assessment knowledge, but looking for a highly focused, hands-on group session to hone and refine your current process, this is your next step.

Developing sustainable assessment processes that lead to quality improvement of educational programs is an iterative process. Most experts would agree that the first few cycles of an assessment process lead to more improvements in the actual assessment processes than they do in improvements of student learning. This workshop is designed to help you take a critical look at your current assessment processes and take them to the next level of quality. Time is spent on critiquing processes and developing ways to ensure consistency in the assessment of student learning across multiple faculty evaluators. In this workshop, you build on the principles taught in ABET Fundamentals to develop more efficient and effective processes.

During the Advanced Program Assessment workshop, you work in a small group to critique performance indicators, undergo rubric calibration training, critique assessment processes, and engage in exercises centered on data visualization and evaluation. You leave the workshop with the ability to apply what you learned to improve your own assessment program.

The workshop prepares you to:

- > Create a sustainable assessment process.
- > Assure consistency in multi-faculty evaluations.
- > Identify ways to improve your current assessment processes.

Here is a brief outline of the day:

- > Introduction
- > Evaluate Program Educational Objectives
- > Critique Performance Indicators
- > Calibrate Scoring Rubrics
- > Review Importance of Curriculum Mapping (Who, What, When)
- > Maximize the Evaluation Process
- > Survey Development
- > Critique an Assessment Plan
- > Determine Meaningful Performance Targets

Cost – \$495, includes lunch and all materials

POST-SYMPOSIUM WORKSHOPS

APRIL 16, 9:00 AM – 12:00 PM

Creating a Culture of Assessment

Tammie Cumming – New York City College of Technology

> Atlantic Ballroom 1

Workshop Description

Program assessment requires and consumes a great deal of energy. Consequently, there is a high risk that assessment efforts will stall if the appropriate framework is not in place. A strong framework helps faculty to see the practice as a worthwhile effort (data is being used to make objective decisions) to be taken seriously by the institution, and likely to be productive with improvements in student knowledge and skills.

In this workshop, you will work with a small team to identify potential barriers and promoters of a sustainable assessment process. You will also learn to develop an assessment and evaluation framework using sample scenarios and simulations. Go back to campus with principles that you can apply directly to your program and create your own culture of assessment.

Using Project Management to Create Your Self-Study and Prepare for the Visit

Jim Conrad – University of North Carolina-Charlotte

> Atlantic Ballroom 2

Workshop Description

The ABET evaluation visit is one of your department's most important activities. Make the most of the limited time between submitting the Self-Study Report and the review visit to fully document your department's commitment to undergraduate education. By using established project management principles such as planning, risk assessment, communications, and reporting, you can accurately represent your program beyond what you included in your Self-Study.

This session will highlight the steps you can take to prepare for the visit, including developing a project plan for preparing the display room and materials. It will also describe how to engage your faculty in materials preparation.

POST-SYMPOSIUM WORKSHOPS

APRIL 16, 2:00 PM – 5:00 PM

**Assessing Student Professional Competencies*

Jenny Amos – University of Illinois at Urbana-Champaign

> Atlantic Ballroom 1

Workshop Description

Much attention has been recently focused on educating the T-shaped engineer; someone who has both deep technical knowledge as well as broad professional skills so they can apply their knowledge across a breadth of situations. Countless programs around the world aim to foster broad professional skills in students through curricular, co-curricular, and community-based learning experiences. Despite the strong emphasis, there is a constant struggle to measure the change that happens as a result of these activities.

Beginning with anticipated outcomes in mind, you will explore tools, methods and means to capture information that demonstrates the value of these community-based, high impact practices for student professional competencies.

Using Project Management to Create Your Self-Study and Prepare for the Visit

Jim Conrad – University of North Carolina-Charlotte

> Atlantic Ballroom 2

Workshop Description

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*Invited Presenters

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ABET FUNDAMENTALS OF PROGRAM ASSESSMENT WORKSHOP

Sun. June 26, 2016 9:00 AM to 4:00 PM
New Orleans Convention Center, 244

HOW TO BECOME AN ABET PROGRAM EVALUATOR

Tue. June 28, 2016 1:15 PM to 2:45 PM
New Orleans Convention Center, 244

WHAT YOU NEED TO KNOW ABOUT ABET ACCREDITATION

Mon. June 27, 2016 11:30 AM to 1:00 PM
New Orleans Convention Center, 244

MAKING PREPARATIONS FOR THE SITE VISIT

Tue. June 28, 2016 3:00 PM to 4:30 PM
New Orleans Convention Center, 244

WHAT'S NEW AT ABET?

Mon. June 27, 2016 1:15 PM to 2:45 PM
New Orleans Convention Center, 244



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