STEM Workshops

COMPUTER SCIENCE SERIES

69268	Introduction to Mobile App Development	Nov 1, 2017
68010	From Block-Based Programming to Python	Dec 13, 2017
69267	AP Computer Science Principles Overview	Mar 1, 2017

ENGINEERING SERIES

69272	Engineering with Everyday Materials	Dec 6, 2017
69273	Robotics K-12	Jan 10, 2018
69274	Engineering with Raspberry Pi Fundamentals	Feb 15, 2018

STEAM SERIES

69270	From Minecraft to Roblox	Oct 19, 2017
69271	Virtual Reality (VR) for All	Nov 8, 2017
69269	Bioengineering, Prosthetics and 3D Printing	Mar 21, 2018

STEM EXPLORATIONS SERIES

69276	TI-Nspire and TI-Innovator for the STEM Classroom	Jan 17, 2018
69280	Cybersecurity for Educators	Mar 7, 2018
69281	Gamification for the STEM Classroom	Mar 28, 2018

PROJECT BASED LEARNING

72775	Project Based Learning Academy for MEGAbyte Districts	Nov 29-Dec 1, 2018
69284	Project Based Learning Academy	May 22-24, 2018

STEM INDUSTRY TOURS

69282	Fall STEM Industry Exploration Tour	Dec 8, 2018
69283	Spring STEM Industry Exploration Tour	May 25, 2018

STEM Conferences & Events

2018 STEM LEADERSHIP NETWORK MEETINGS

69285	STEM Leadership Network Quarterly Meeting 1	Sept 25, 2017
69286	STEM Leadership Network Quarterly Meeting 2	Nov 14, 2017
69287	STEM Leadership Network Quarterly Meeting 3	Feb 13, 2018
69288	STEM Leadership Network Quarterly Meeting 4	May 1, 2018

2018 TEXAS STEM CONFERENCE

Register	Galveston - Moody Gardens Hotel & Convention Center	Feb 1-3, 2018

2018 SOUTH TEXAS STEM SUMMIT

67325	Isla Grand Beach Resort, South Padre Island	Feb 22-23, 2018

2018 3rd ANNUAL STUDENT BY STUDENT (SbyS) TECHNOLOGY AND LEADERSHIP CONFERENCE

67474	McAllen Convention Center	April 20, 2018

STEM Center of South Texas
Region One ESC

STEM Workshop Descriptions

COMPUTER SCIENCE SERIES

WS69268 Introduction to Mobile App Development
Participants will explore multiple platforms as an introduction to mobile app development. The session will include various project based examples as an introduction to conceptualization, design, and deployment phases.

WS69267 AP Computer Science Principles Overview
This session is designed for advanced participants seeking additional support for AP Computer Science exam courses. The session will feature object-oriented methods, problem solving and algorithm development, and an overview of data structures and abstraction.

WS68010 From Block-Based Programming to Python
Participants learn to code using easy "block" based instructions before experiencing text based programming. The session will feature readily available resources to support continued learning at all levels.

ENGINEERING SERIES

WS69272 Engineering with Everyday Materials
Participants experience engineering projects using common, low-budget items found in classrooms. The session will anchor content objectives using project based learning methods.

WS69273 Robotics K-12
Participants will experience a variety of robotics platforms and learn the basics of designing, building, and testing robot products anchored to content objectives. The session will feature multiple project builds at different grade levels.

WS69274 Engineering with Raspberry Pi Fundamentals
Participants will experience engineering based projects using the Raspberry Pi platform. Various projects will be featured to highlight engineering and computational design elements.

STEAM SERIES

WS69269 Bioengineering, Prosthetics and 3D Printing
Participants will explore bioengineering through hands-on design challenges using free CAD based platforms. Models will then be 3D printed for additional observation, testing, and evaluation.

WS69270 From Minecraft to Roblox
Participants will explore 3D world gaming software development and the deployment of custom virtual worlds for various applications. VR headsets will be used to fully experience 3D environments for a complete VR experience.

WS69271 Virtual Reality (VR) for All
Participants will be introduced to various VR content creation platform as they transition from VR consumers to VR creators. VR headsets will be used to fully experience 3D environments for a complete VR experience.

STEM EXPLORATION SERIES

WS69276 TI-Nspire and TI-Innovator for the STEM Classroom
Learn engineering and coding with the TI-Innovator solution for math and science teachers. The session will feature plug-in-play solutions and hands-on projects to learn basic coding and design skills. No prior programming experience required.

WS69280 Cybersecurity for Educators
Participants will explore common processes and practices related to cybersecurity. Mini-field based student workshops will be embedded from real network specialists to gain a foundation for protecting computers, programs, and user data from potential attacks.

WS69281 Gamification for the STEM Classroom
Participants are introduced to typical gaming elements (e.g., scoring, multi-player, rules, setting, characters) and their application into classroom settings. The session will feature strategies and best practices through hands-on activities and resources.

STEM INDUSTRY TOURS

STEM Industry Exploration Tours - Sessions will feature industry grade activities in STEM and CTE career areas followed by onsite industry tours at select companies. Partnering host include local institutes of higher education as bridging experiences from high school to postsecondary to support STEM career pathways.
WS69282 Fall STEM Industry Exploration Tour
WS69283 Spring STEM Industry Exploration Tour

PROJECT BASED LEARNING

WS72775 Project Based Learning Academ (Fall)
WS69284 Project Based Learning Academy (Spring)
Participants receive a comprehensive learning experience using the Project Based Learning model of instruction. PBL handbooks,, technology tools, and other resources will be used to align PBL unit content with the PBL pedagogical approach.
Day 1: PBL Overview & Content Connections
Day 2: PBL Unit Development
Day 3: PBL Unit Refinement

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