



FALL
CONFERENCE

Project Lead the Way Ohio 2008 Fall Conference

September 16 & 17, 2008

(September 17 for Teachers Only)

The audience for this conference is current PLTW program school administrators, counselors, PLTW teachers, business and industry representatives, advisory council members and those either considering implementing PLTW or those who will implement the program in 2009.

The conference features topics in Project Lead the Way courses, Biomedical Science and Engineering, Gateway Summer Academies, Gateway to Technology (for middle schools), articulation and help with implementation of PLTW.

This program fulfills the PLTW teacher requirement for annual professional development. This conference is eligible for contact hours for continuing education by the Ohio Department of Education.

Administrators 8.5 hours
Teachers 16 hours
Guidance counselors 8.5 hours

Conference Location:

Sinclair Conference Center

Sinclair Community College
444 W. Third Street
Building 12 (*Perry & Fourth Street*)
Dayton, Ohio 45402

Conference Hotel:

Crowne Plaza Dayton

33 E. Fifth Street, Dayton, OH 45402
Phone: 937-224-0800
Conference Rate: \$82 per night

Tuesday, September 16, 2008

7:30 am – 8:00 am
Great Hall

Breakfast and Registration

8:00 am – 9:20 am
Great Hall

General Session

Welcome

Dr. George Sehi, Dean of Science, Mathematics & Engineering Division, Sinclair Community College

Opening Remarks

Dr. Susan Zelman, Superintendent of Public Instruction, Ohio Department of Education

Recognition of New Nationally Certified Schools

Dave Powell, Chairperson, Ohio PLTW Executive Council

Richard Grimsley, National PLTW, VP of Programs

Dr. Susan Zelman

Building the Future Award Recognition

Bart Aslin, Society of Manufacturing Engineers

Introduction, New PLTW State Affiliate Director, Steve Wendel

Dr. George Sehi

Conference Overview

Hope Arthur, Director, Workforce Development & Corporate Services Marketing and Conference Center, Sinclair Community College

9:25 am – 10:10 am

Breakout Session I

Recommended for Administrators:

Session A: Perkins Reporting

Recommended for Teachers:

Session B: True Outcomes (*also offered during Session II*)

Session C: Ohio Data/WebXam

Session D: Becoming a Master Teacher

Recommended for Counselors:

Session E: Industry Today & STEM: Breadth of Engineering & Education

Session F: Bridging Gateway to PLTW & Recruiting Women & Minorities

10:10 am – 10:35 am

Break – Please Visit Student Displays

Great Hall & 1st Floor, South Atrium

10:35 am - 11:20 am

Breakout Session II

Recommended for Administrators:

Session G: New Program Implementation

Session H: Developing Mentorships/Internships: Working with Business & Industry

Recommended for Teachers:

Session I: True Outcomes (*also offered during Session I*)

Session J: PLTW Ohio Website Updates

Session K: PLTW Elective: Aerospace Engineering

Recommended for Counselors:

Session L: Gateway Summer Academies

Session M: Where are PLTW students going? / Articulation

11:30 am -12:15 pm

Breakout Session III

Recommended for Administrators:

Session N: Executive Council Roundtable

Session O: Working with Tech Prep

Session P: Preparing for National Certification

Session Q: The New STEM Initiative - Biomedical Science

Recommended for Teachers:

Session R: Using Blackboard as a Curriculum Enhancement

Session P: Preparing for National Certification

Session Q: The New STEM Initiative - Biomedical Science

Recommended for Counselors:

Session S: Choose Ohio First Scholarship Awards

Session T: Certificate of Completion & Transcribing Credit

Tuesday, September 16, 2008

12:15 pm – 2:00 pm **Luncheon, Student Presentations, Announcements and Keynote Speaker**
Great Hall

2:00 pm – 2:15 pm **Break – Please Visit Student Displays**
Great Hall & 1st Floor, South Atrium

2:15 pm – 2:45 pm **General Session - PLTW Ohio Student Innovators**
Smith Auditorium
Hear about the opportunity offered to PLTW students by the Center of Science and Industry (COSI) – A rotating exhibit being set up exclusively for PLTW students alongside other innovative Ohio enterprises
Presenter: Doug Powhida, Design Manager, COSI Experience Division

2:45 pm - 5:00 pm **Breakout Session IV** –*All participants are encouraged to visit each session*

Smith Auditorium

Theatre of Innovation

See examples of today's technologies used in the US defense systems and business and industry

Charity Earley Auditorium

America's Army Technology Education Program

Experience new military technologies and ask questions of a Special Forces representative

Great Hall

Networking Round Tables

Spend time with your peers from other Ohio schools sharing successes, discussing ideas and asking questions at this relaxing session

4:00 pm - 5:00 pm Evaluations / CEUs Awarded
Great Hall

5:30 pm – 7:00 pm **Teacher Networking Event** *(Recommended for All Teachers)*
Crowne Plaza Hotel
Van Cleve Ballroom

Please join us in recognizing the following Ohio schools...

2008 Nationally Certified Project Lead the Way Programs

Auburn Career Center

Fredericktown High School

Hoover High School

Madison High School

Norwalk High School

Trumbull Career and Technical Center

2008 Nationally Recognized Middle School Program

River Valley Middle School

Breakout Session Program Descriptions - September 16, 2008

Breakout Session I

Perkins Reporting

This session is designed to aid schools in complying with the new Perkins reporting and will feature the new Program of Study requirement.

Presenters: *Rick Mangini*, Associate Director, CTAE, Ohio Department of Education; **Dr. Kathy Sommers**, Assistant Director, CTAE, Ohio Department of Education

True Outcomes

Dr. Krueger will explain school reporting responsibilities and the process for entering data. She will also share data from this past school year.

Presenter: *Dr. Joy Krueger*, PLTW National, Director of True Outcomes Data Collection

Ohio Data/WebXam

Receive information on Ohio's new data collection process, revision of the WebXam middle school screens, and the results of the 2007-08 school year data.

Presenter: *Dr. Bob Mahlman*, Interim Director, CETE, The Ohio State University

Becoming a Master Teacher

This panel will give some insight into the need for, and the requirements to become, PLTW master teachers. New master teacher Ryan Benroth will speak about the application process and his first year as a master teacher.

Panel: *Richard Grimsley*, PLTW National, VP of Programs; **Ryan Benroth**, Miller City HS

Industry Today & STEM/Breadth of Engineering & Education

This discussion will focus on industry's need for students prepared in Science, Technology, Engineering and Mathematics and look at the breadth of engineering courses, programs, and degrees.

Panel: *Dr. George Sehi*, Dean of Science, Mathematics & Engineering Division, Sinclair Community College; **Dr. Dan Evans**, Chief-Processing and Fabrication Branch, WPAFB

Bridging Gateway to PLTW & Recruiting Women and Minorities

This session will cover recruiting practices and resources that will aid counselors in attracting women and minorities, and also give practical tips on how to retain Gateway to Technology students so that they will sign up for PLTW courses at their high school rather than stopping at the middle school level.

Panel: *Deb Lukjanovs*, Program Coordinator, PLTW Ohio State Affiliate; **Meg Draeger**, Program Manager, Miami Valley Tech Prep Consortium, SCC

Breakout Session II

New Program Implementation

This session provides practical information for both middle schools and high schools with new programs in 2008-09 and for those considering implementing PLTW.

Presenter: *Dr. Kathy Sommers*

Developing Mentorships/Internships: Working with Business & Industry

Learn how these committed business and school leaders have leveraged their relationships within the community to bring PLTW students into win/win relationships with local industry.

Presenters: *Tom Bratten*, Canton South HS; **Steve Stokey**, Allied Machining; **Steve Bushman**, LUK, LLC.

True Outcomes

Dr. Krueger will explain school reporting responsibilities and the process for entering data. She will also share data from this past school year.

Presenter: *Dr. Joy Krueger*, PLTW National, Director of True Outcomes Data Collection

PLTW Ohio Website Updates

In this session, we will focus on the improvements and important updates including the addition of teacher resources to the PLTW Ohio website for 2008 and also discuss YOUR ideas for improvements and enhancements to the website.

Presenters: *Deb Lukjanovs*, Program Coordinator, PLTW Ohio State Affiliate; **DeeDee Martin**, Martin Solutions, Inc.

PLTW Elective: Aerospace Engineering

This session is intended to provide in depth information regarding course content, associated costs and expected student outcomes of adding the PLTW Elective, Aerospace Engineering to existing programs' PLTW offerings.

Presenter: *Sam Cox*, PLTW National, Curriculum Director-Engineering

Breakout Session Program Descriptions - September 16, 2008

Breakout Session II (Continued)

Gateway Summer Academies

This session focuses on the Gateway Academies' curriculum and activities by highlighting some of the teachers and administrators who hosted camps this year. Mr. Aslin will discuss future opportunities for Ohio schools that may wish to host academies next summer.

Panel: *Bart Aslin*, Chief Foundation Officer, Society of Manufacturing Engineers; *Tad Douce*, River Valley Middle School; *Todd Alkire*, North Canton Middle School; *Betsy Bhasker*, Columbus City Schools; *Joshua Sarver*, COSI

Where are PLTW students going? Articulation

This panel looks at which colleges and universities are articulating college credit, how students can successfully obtain credit for PLTW classes across the state, and what some of their experiences have been with various colleges and universities.

Panel: *Dr. Dave Dickinson*, Professor Emeritus, The Ohio State University; *Chad Weaver*, PLTW teacher, Timken HS; *Steve Peck*, Counselor, Miller City HS

Breakout Session III

Executive Council Roundtable

This is an opportunity to discuss your program needs, barriers, and ways which you can engage business and industry locally and regionally. This is an open discussion format.

Discussion Leader: *Dave Powell*, Chairperson, PLTW Ohio Executive Council

Working with Tech Prep

Perkins V provides a new definition for College Tech Prep, including new application procedures. Ms. Davis will discuss these procedures and provide information on how to work with your local consortium to obtain a College Tech Prep designation.

Presenter: *Nenna Davis*, College Tech Prep Director, Ohio Department of Education

Preparing for National Certification

What does it take to become a nationally certified school? What can you expect when you set up an appointment for an evaluative site visit? Find out the answers to these and other questions in this session.

Presenter: *Deb Lukjanovs*, Program Coordinator, PLTW Ohio State Affiliate

The New STEM Initiative: Biomedical Science

Take a look at one of Ohio's new Biomedical Science programs – how it is being rolled out, what opportunities there are for schools, and the needs of Ohio's biomedical community's workforce, both now and in the future.

Panel: *Joyce Boudreau*, Education Consultant, Ohio Department of Education; *Dr. Bill Tacon*, Senior Program Director, BioOhio; *Mike McDaniel*, Superintendent, Ashland West Holmes Career Center

Using Blackboard as a Curriculum Enhancement

The Blackboard system has increased Mr. Fazenbaker's ability to successfully deliver his PLTW curriculum, and has enhanced his students' PLTW experience and made it more relevant to them. He will share his ideas and successes with other teachers and interested individuals.

Presenter: *Al Fazenbaker*, PLTW Teacher, Auburn Career Center, Madison HS

Choose Ohio First Scholarship Awards

The University of Akron (lead institution) will partner with Baldwin-Wallace College, Stark State College of Technology and Lorain County Community College to attract and graduate an estimated 790 students in STEM fields in five years. The group's proposal, "STEM Undergraduate Engagement in an Engineering Environment," demonstrated innovation in the areas of student learning communities, early academic intervention, redesigned science modules and a cooperative education program that will include more than 90% of its students.

Presenter: *Dr. Ed Evans*, University of Akron

Certificate of Completion & Transcribing Credit

Ms. Korosei will let counselors in on the process for obtaining credit for PLTW classes on a student transcript from Sinclair Community College. This credit can then be transferred to other institutions. Mr. Yager will discuss his students' success in obtaining and transferring credit with the Certificate of Completion and with Sinclair's process.

Vicky Korosei, Advising Center, Sinclair Community College; **Ed Yager**, PLTW Teacher

Wednesday, September 17, 2008 *(Teachers Only)*

8:00 am – 8:45 am **Networking Breakfast**
Great Hall, Sinclair Conference Center

8:45 am – 11:30 am **Breakout Session I**

Session A: Principles of Engineering
Session B: Introduction to Engineering Design
Session C: Digital Electronics
Session D: Gateway to Technology
Session E: Biomedical Science
Session F: ImaginIT Level 2, Advanced Inventor

11:30 am – 1:00 pm **Luncheon**
Great Hall, Building 12, Sinclair Conference Center

Luncheon Panel: **Redstone Arsenal & Natick Soldier Research Development & Engineering Center Teacher Tours**

Luncheon Presentation: **Computational Science and Engineering Academy**

1:00 pm – 3:30 pm **Breakout Session II**

Session G: Principles of Engineering
Session H: Introduction to Engineering Design
Session I: Computer Integrated Manufacturing
Session J: Civil Engineering and Architecture
Session K: Engineering Design and Development
Session L: ImaginIT Level 1, Basic Inventor

3:15 pm – 3:30 pm **Evaluations & Adjournment/CEUs Awarded**

Breakout Session Program Descriptions – *September 17, 2008*

Breakout Session I

Principles of Engineering

This session is required for all POE teachers and will cover the curriculum enhancements currently being piloted in Ohio as a result of the collaboration between America's Army and PLTW.

Presenters: *Cathrine G. Summer, Army Education/Training Liaison; Peter Leeper, Master Teacher; Craig Abram, PLTW Teacher; Sam Cox, Director of Curriculum for Engineering, PLTW National*

Introduction to Engineering Design

Roundtable for new or established programs to share ideas for new projects and look at curriculum issues with a master teacher and an affiliate faculty member active in teaching the Summer Training Institute classes in IED.

Presenters: *Tom Singer, Affiliate Faculty, Sinclair Community College; Bill Small, Master Teacher*

Breakout Session Program Descriptions – September 17, 2008

Breakout Session I (Continued)

Digital Electronics

Session designed to allow new or established programs to trade ideas and issues from their classrooms and obtain answers from two experienced DE teachers.

Presenters: *Ed Yager*, PLTW Teacher; *Chad Weaver*, Master Teacher

Gateway to Technology

This GTT teacher roundtable will focus on classroom delivery of two of the PLTW modules (Design and Modeling and Automation and Robotics) and projects not covered in the curriculum.

Presenters: *Steve Wendel*, Affiliate Faculty, Sinclair Community College; *Don DeMarco*, Fredericktown

Biomedical Science

With a full year of the biomedical curriculum under their belts, these biomedical teachers will share both their training experiences and their experiences in the classroom.

Presenters: *Autum Barry*, Master Teacher; *Dave Gordon*, Biomedical Teacher

ImaginIT Level 2, Advanced Inventor

This session is recommended for instructors who feel comfortable with Inventor basics. Some examples of topics covered are advanced geometry creation tools (centerline and area lofts, sweeps, coils), analysis tools, or importing and exporting data.

Presenter: *Elvis Sverko*, Manufacturing Solutions Division, IMAGINIT Technologies

Luncheon

Luncheon Panel: *Todd Deisher*, Worthington Kilbourne HS; *Adam Leutenegger*, Norwalk HS; *Tad Douce*, River Valley MS; *Kristi Matlack*, North Union MS; *David Morrow*, Southeastern HS

Luncheon Presentation: *Al Fazenbaker*, Auburn Career Center, Madison HS; *Bill Reitz*, Hoover HS

Breakout Session II

Principles of Engineering (See above description)

Introduction to Engineering Design (See above description)

Computer Integrated Manufacturing

Learn tricks and tips and get software info and classroom tips; you will be working in Sinclair's robotics lab where CIM classes are held.

Presenters: *David Lord*, PLTW Teacher; *Jeff Donbar*, Affiliate Faculty, Sinclair Community College

Civil Engineering and Architecture

Learn about the CEA curriculum and how it is delivered. This session is both for teachers currently teaching CEA and those who are interested in offering it as an elective at your school in the future.

Presenters: *Steve Carter*, Master Teacher; *Eric Dunn*, Affiliate Faculty, Sinclair Community College

Engineering Design and Development

Experienced teachers- bring the projects you did for EDD; also recommended for biomedical teachers as your chance to be introduced to research and development concepts and issues in PLTW's curriculum. The content of EDD is similar to the final module in the PLTW biomedical curriculum.

Presenters: *John Koutras*, PLTW Teacher, *Steve Wendel*, PLTW Affiliate Professor

ImaginIT Level 1, Basic Inventor

This session is recommended for instructors who are in their first or second year of using Inventor software, or those who still feel unfamiliar with Inventor. Basic modeling will be demonstrated, both part and assembly.

Presenter: *Elvis Sverko*, Manufacturing Solutions Division, IMAGINIT Technologies



On behalf of the Ohio Department of Education, Sinclair Community College, and the PLTW Ohio Executive Council, we would like to express our sincere appreciation to the numerous individuals, organizations and agencies whose support and commitment made this conference possible.

Special thanks to the staffs of the America's Army and the US Army for their partnership with PLTW Ohio and for their deep commitment to enriching STEM education.