

# Connecting Assessment to Teaching and Learning to Sustain Accreditaion

ABET Symposium, 2011  
April 14 – 16, Indianapolis, Indiana

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**Mustafa Sualp**

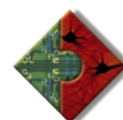
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Untra Academic Management Solutions, LLC, Philadelphia, Pennsylvania, USA



## About Today's Session

**80 Minute Mini-Workshop**  
**Saturday, April 16, 2011, 10:35 – 11:55 AM**  
**ClearWater Ballroom A**

### Track:

Program Assessment Processes

### Title:

Connecting Assessment to Teaching and Learning to Sustain Accreditation

### Brief Session Description (< 150 words):

The expectations for higher education to produce industry-ready professionals are on the rise and institutions need to justify that educational experiences are improving to mirror those rising expectations. Such justifications are rooted in assessment – understanding what students are learning, what teaching methods are most effective, and how well educational practices are preparing students for their careers. Each class of students that passes through an engineering program is unique and the processes used to discern student learning must be flexible and sustainable. This session will demonstrate methods to actively engage administrators, faculty, students, alumni and industry to improve assessment processes while facilitating accreditation documentation. The AEFIS Solution Platform hosts modules to implement these methods including direct (embedded) and indirect (survey-based) assessment management that participants will be able to interact with during this session. Development backed with academic collaboration and research allows the platform continues to grow to meet institutional needs.

### Keywords (limit of 4):

closing the loop, continuous quality improvement, accreditation documentation, AEFIS

### Learning outcomes anticipated from your session:

- (1) Participants will be introduced to a web-based system for mapping student learning outcomes to educational experiences, to include development of performance criteria, rubrics, and assessment measures.
- (2) Participants will learn about strategies to organize student learning outcomes from multiple levels to support the mission statements of the institution, college, department, and goals presented by ABET.
- (3) Participants will see how academic colleagues have derived succinct reports on direct and indirect assessment data to be applied to continuous quality improvement of curriculum.
- (4) Participants will make connections between assessment and accreditation practices in order to develop a roadmap for unifying multiple processes.
- (5) Participants will learn about current research efforts to develop tools within the AEFIS Solution Platform and will be invited to get involved via open discussion and collaborative opportunities.

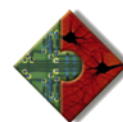
### Experience with the topic being proposed:

Presenter, Mustafa Sualp, has worked in collaboration with academic partners to develop effective assessment solutions since 2003. He is an ABET IDEAL Scholar and is working closely with developing higher education accrediting bodies in Europe.


Presenter, Dr. Adam Fontecchio, has led the Electrical and Computer Engineering Department of Drexel University's College of Engineering through ABET accreditation reviews successfully and now serves the College as the Associate Dean Of Engineering for Undergraduate Affairs. He works closely with the AEFIS Team to develop reporting solutions.

Presenter, Dr. Donald McEachron, serves at the forefront of the assessment efforts at the Drexel University School of Biomedical Engineering, Science and Health Systems in addition to the institution-wide efforts. He is an ABET IDEAL Scholar and is the visionary of the Instructional Decision Support System (IDSS™) currently developed as part of the AEFIS Platform.


Presenter, Becky Joyce, is the Operations Coordinator for AEFIS. She works closely with academic clients to facilitate research activities and steer the AEFIS product for the development of assessment best practices.



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 Innovations in Engineering Education, Curriculum, and Infrastructure (EECI) Funding  
Supported by Grant #: NSF 0835985 awarded to Dr. Donald McEachron

**Adam Fontecchio<sup>1</sup>**  
**Becky Joyce<sup>2</sup>**  
**Donald McEachron<sup>3</sup>**  
**Mustafa Sualp<sup>4</sup>**

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<sup>3</sup>Untra Academic Management Solutions, LLC, Philadelphia, PA  
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## Session Outline

- Introductions and Preface – 5 min
- Dr. Donald McEachron,  
Drexel University School of Biomedical Engineering, Science and Health Systems – 20 minutes
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## Dr. Donald McEachron

Drexel University  
School of Biomedical Engineering,  
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Innovations in Engineering Education, Curriculum, and Infrastructure (IEECI) Funding  
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## Problem Statement

- ▶ “Engineering Education must change in light of the changing workforce and demographic needs”
- ▶ Much data on student performance and perceptions on course recorded, but then where does it go?
- ▶ Assessment data pushed up administrative hierarchy before returning to where its needed
  - Loss of time
  - Data becomes less detailed, loses resolution

How can this loop be closed and essential faculty receive the information when and where it is needed?

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**Proposed Solution**

- ▶ An *evidence-based intervention system* is proposed for the *guided evolution* of engineering education programs.
- ▶ The implementation of *Instructional Decision Support System* (IDSS) approaches will provide rapid feedback of assessment data combined with student characteristics to empower faculty instructors and enhance student learning.

*Preliminary data is provided as proof-of-concept of this approach*

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**Our Approach**

1. Employ a *dynamic view of learning and teaching styles* where the characteristics of student and faculty are periodically measured to establish an assessment process calibration
2. Use *knowledge management systems* to process voluminous data collection and analysis in an efficient and flexible manner
3. Use a *modular design* of an established assessment paradigm that provides points of real-time intervention to responsively optimize educational practices
4. Share results with accrediting bodies to demonstrate efforts for *continuous quality improvement* of student learning

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**Instructional Decision Support System**

- ▶ The potential of a web-based knowledge management system that promotes *personalized learning* is investigated.
- ▶ Provides *rapid feedback of assessment data* combined with student characteristics to empower faculty instructors and enhance student learning.
- ▶ Dr. Robert Hayward of the Centre for Health Evidence, in medical practice, *clinical decision support systems (CDSS)*:  
**“link health observations with health knowledge to influence health choices by clinicians for improved health care”**

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### Knowledge Management

1. To develop and implement an information system for the collection and analysis of *student and faculty instructors characteristics*
1. To develop and implement an information system for the collection and analysis of *course and curricular characteristics*
2. To develop and implement an information system for the collection and analysis of *student performance*
3. Develop and implement a method for instructional support that ensures these data are used to *enhance student learning*.

*This information must be collected without overburdening the users with data and delivered in context for maximum usability*

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### What is an IDSS?

**Instructional Decision Support System:**  
An interactive computer-based information system which links student characteristics, student performance, instructor characteristics, learning outcomes, and instructional methods to inform faculty decisions on the appropriate educational pedagogy to improve student learning.

Collection of Data → Succinct Data Organization → Dashboards for Reference

- Student Surveys → Student Characteristics → Identify various learning demographics
- Faculty Surveys → Instructor Characteristics → Identify various teaching demographics
- Direct Assessments → Learning Outcomes → Inform faculty decisions on educational methods
- Educational Experience Research Resources → Instructional Methods → Improve student learning

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### Avoiding Data Overload

Three standard reports to be presented to each faculty instructor prior to the beginning of any term in which that instructor is teaching :

A useful data "Snapshot" to facilitate instructional decision without requiring significant additional effort

1. Incoming Student/Course Profile
2. Course Rationale and History Profile
3. Evaluation Results Notes and Recommendations

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**IDSS Format** Incoming Student/Course Profile (ISCP)

► **Incoming Student/Course Profile (ISCP)**

- I. **Relevant student characteristics** (learning styles, course load, work load, lifestyle, etc.)
- II. **Current performance** – achievement on performance metrics related to the course materials
- III. **Suggestions for instructional approaches**
  - a. **Definitions of terms** (what is meant by global or visual learning, etc.)
  - b. **Links** to possible instructional approaches for students with such characteristics
- IV. **Clear, simple format** with links to additional information

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**IDSS Format** Course Rationale and History Profile (CRHP)

► **Course Rationale and History Profile (CRHP)**

- I. **How does course fit into program curriculum?**
  - a. What **performance criteria** and/or student learning outcomes are **associated with the course**
  - b. What **educational experiences** came **before** this class? What can students expect to **encounter afterwards**?
- II. What is the **value of the course**?
  - a. How does learning this material and/or skill set **facilitate program goals**?
  - b. How does learning this material and/or skill set **facilitate student goals**?
    1. Employment
    2. Professional advancement

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**IDSS Format** Evaluation Results, Notes and Recommendations (ERNR)

► **Evaluation Results, Notes and Recommendations (ERNR)**

- I. **Summarize assessment data** for this course
  - a. **Student/instructor observations/opinions/insights**
  - b. Any **direct measures of performance** on previous students
    1. Grouped data
    2. Correlations with student characteristics and instructional approaches
- II. **Recommendations**
  - a. **Archival recommendations** (searchable)
  - b. **Current recommendations** from latest assessment and evaluation

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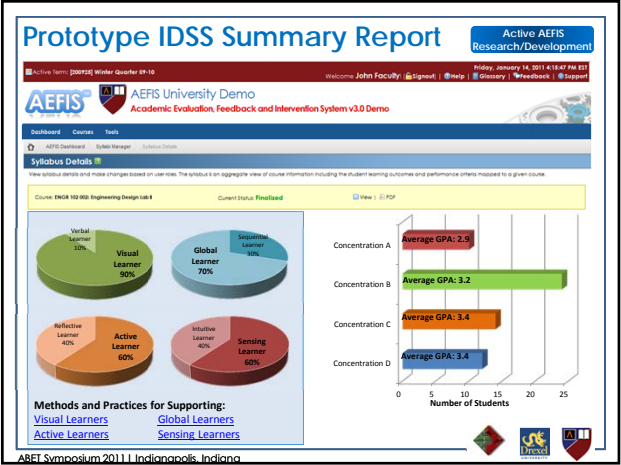
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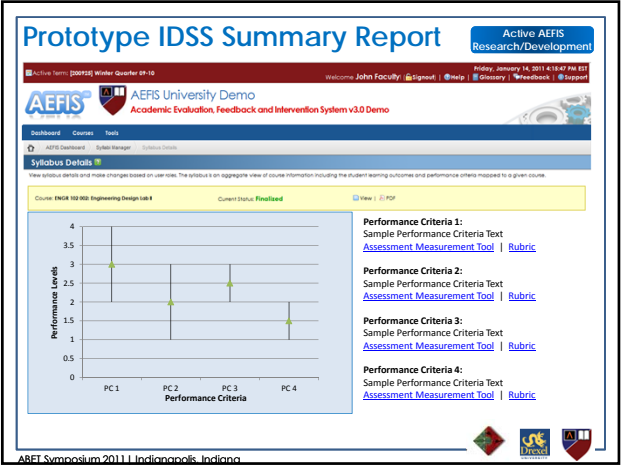
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**Current Studies**

- Drexel University School of Biomedical Engineering, Science and Health Systems students being used as test-case
- Data collected from students at **three points within curriculum**:  
1) Freshmen 2) Pre Junior and 3) Senior Years
- Surveys
  - Inventory of Learning Styles
  - Myers-Briggs Personality Inventory
  - Student Developmental Task and Lifestyle Inventory
  - Multiple Intelligence Inventory
  - Perspectives and Motivation Inventory
  - Student Lifestyle Impact Survey

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### Current Studies – Resultant Research

- ▶ Data collected from 150+ students over the past academic year.
- ▶ Survey data collected is initially sorted by academic level and gender.
- ▶ Continuously obtain valuable insight into the students' bodies:
  - Personality and characteristics as a whole
  - Characteristics within particular demographics
  - For an individual class or course
  - On an individual student basis
- ▶ Provides the ability to precisely modify teaching methodologies to best fit the student body and maximize learning outcomes.

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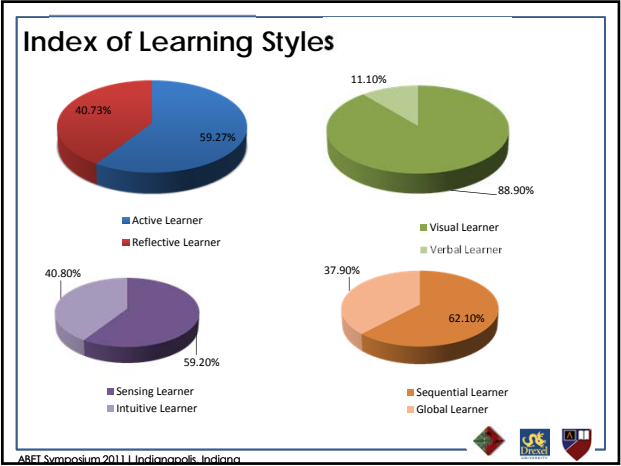
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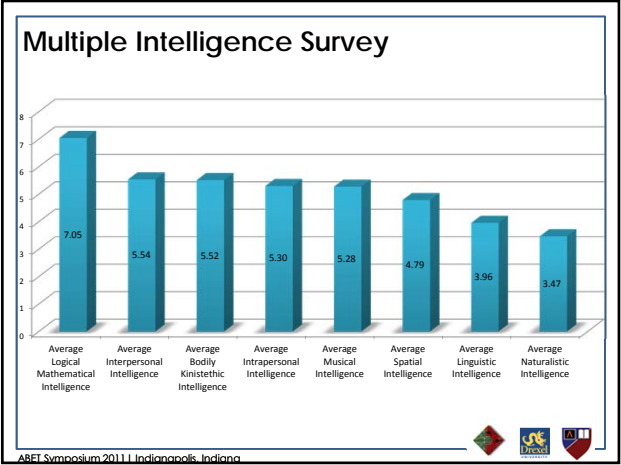
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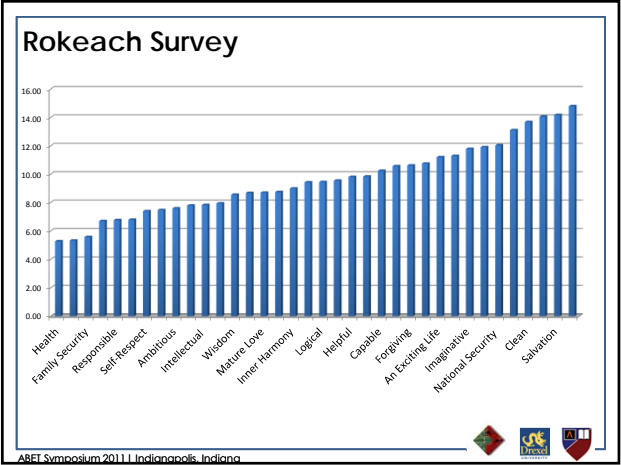
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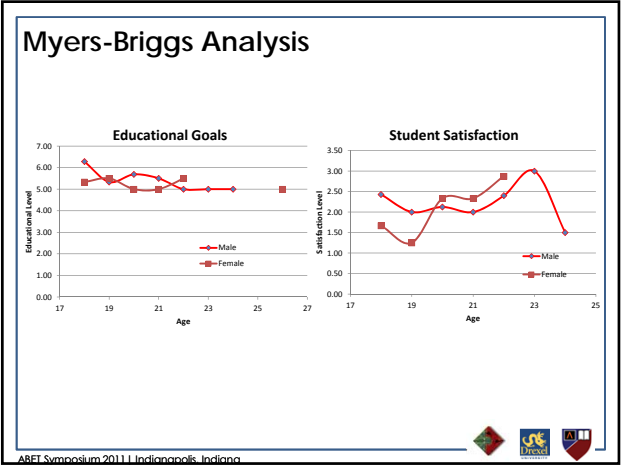
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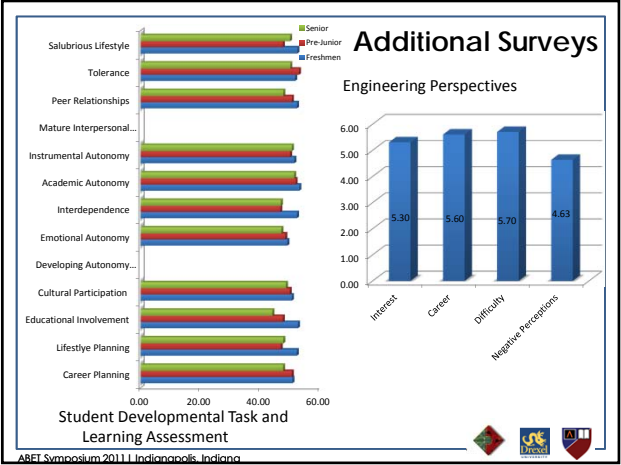
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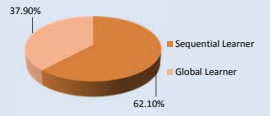
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### Results in Action

- ▶ Students prefer having material presented as a series of small steps from which they will derive an overall understanding – a kind of ‘bottom up’ method.
- ▶ Dr. Papazoglou, is a global thinker and was using a ‘big picture’ approach in her instructional delivery – a type of ‘top-down’ methodology.
- ▶ Having the information about the specific learning styles of her students in time to adjust her instructional delivery enabled Dr. Papazoglou to *enhance those students’ educational experiences.*



	Global	Sequential 1	Sequential 2
Course Poorly Organized	42%	26%	10%
Ability to Follow Course	35%	N/A	N/A

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### Future Work

- ▶ **Future studies will focus on other student characteristics, the interactions of these characteristics with faculty instructor teaching styles and the effect these interactions have on metrics of student performance across the entire curriculum.**
- ▶ **Faculty Characteristics**
- ▶ **Repetition and increased analysis of survey data**
- ▶ *Learning Decision Support System*

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### Conclusions

- ▶ *Data collection is actually not a significant issue in assessment.* There are many methods and techniques available for the collection and storage of assessment results.
- ▶ *The real problem is getting the right data to the right people in right format and at the right time.*
- ▶ It is also important to build into any such system the *flexibility to adapt to new circumstances.*

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### Conclusions

- ▶ The use of an **integrated KM platform** has demonstrated proven capabilities to manage information and deliver real-time data to all user groups appropriately.
- ▶ Through the development of **faculty-friendly IDSS structures** this work can lead to enhanced student learning, continuous quality improvement and the necessary validation to support accreditation.
- ▶ The system is being implemented to provide a **continuous and on-going process of data collection, analysis, use and evaluation** so that as the student body changes – and their needs and the needs of society change – instructional delivery can adapt.



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## Mapping Strategy Small Group Activity and Discussion

Dr. Donald McEachron, Drexel University School of Biomedical Engineering, Sciences and Health Systems,  
Philadelphia, Pennsylvania, USA

### What is a Curriculum Map?

A curriculum map is a visual representation—of the relationships among a program's curricular courses and its intended program outcomes (Student Learning Outcomes or SLOs)—that serves as guide to help “align” a program's curriculum and its plans for assessment.

### What is involved in the creation of a Curriculum Map?

Process based on text from Norfolk State University handout – SACS Annual meeting December 2006.

#### Create the curriculum matrix

- Document the program's Mission Statement at the top of the matrix.
- List the Student Learning Outcomes (SLOs) across the top of the matrix.
- List the Program's Core Courses (Required and Elective) down the left side of the matrix.
- Add any additional courses that you want to assess.
- Designate a scale of Performance Levels at which a course will address an SLO. For example:
  1. **Introduce (I)** = Students are not expected to be familiar with the content or skill at the collegiate or graduate level. Instruction and learning activities focus on basic knowledge, skills, and/or competencies, and entry level complexity.
  2. **Reinforces (R)** = Students are expected to possess a strong foundation in the knowledge, skill, or competency at the collegiate or graduate level. Instructional and learning activities continue to build upon previous competencies and increased complexity.
  3. **Emphasis (E)** = Students are expected to possess a basic level of knowledge and familiarity with the content or skills at the collegiate or graduate level. Instruction and learning activities concentrate on enhancing and strengthening knowledge, skills, and expanding complexity.

#### Document Performance Levels and Planned Assessments for each class.

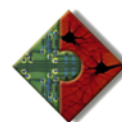
- Indicate the Performance Level for each course on the matrix.
- Document what means are used to assess learning for each course (i.e. multiple choice questionnaires, written exam, essay, research paper, etc.).

#### Review the program curriculum.

- Check for the following:
  - Is the mission of the program clear and accurate?
  - Do the SLOs support the Program Mission statement?
  - Are all of the SLOs addressed throughout the curriculum?
  - Is the Performance Level for each course appropriate that course level (i.e. Does an introductory course “reinforce” subject matter that has not yet been addressed in another course?)?
  - Do students reach the desired level of competency for each outcome according to the matrix?
- Look for strengths and weaknesses/problem areas and make adjustments if necessary.

### ACTIVITY (15 Minutes):

In small groups, spend about 10 minutes reviewing the Program Mapping on the next page. Based on the checklist provided, determine if the program is aligned and if the curriculum is thoroughly planned. Make notes of any adjustments to be made for discussion.



**Program:**

Required Courses	Level and Means Assessment	Outcome #1	Outcome#2	Outcome #3	Outcome #4
		Students will be able to define and explain the theoretical concepts of public administration as well as the intricacies involved in the particular arenas of government, business, and nonprofits.	Students will be able to acquire and develop basic research designs and statistic in public administration and nonprofit organization areas.	Students will be able to write well reasoned and data supported paper using proper Turabian format	Students will be able to demonstrate good oral communication skills
<b>PA 3301 Research Method</b>	Level		Introduce	Introduce	
	Means of Assessment		Research Paper	Research Paper	
<b>PA 3302 Introduction to Public Administration</b>	Level	Introduce		Introduce	Introduce
	Means of Assessment	Multiple Choice		Essay	Presentation
<b>PA 3303 Organization Behavior</b>	Level	Introduce			
	Means of Assessment	Multiple Choice			
<b>PA 3305 Non Profit Organization</b>	Level	Introduce			
	Means of Assessment	Multiple Choice			
<b>PA 3306 Human Resource Management</b>	Level	Introduce			
	Means of Assessment	Multiple Choice			
<b>PA 3307 Introduction to Statistic</b>	Level		Introduce		
	Means of Assessment		Exams		
<b>PA 3308 Social Statistic Lab</b>	Level		Introduce		
	Means of Assessment		Exams		

NOTES: \_\_\_\_\_

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**Accreditation Case Study:  
ABET Accreditation**

NOTE: Numbers shown are for illustration only and do not reflect actual data collected

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**ABET Accreditation Standards for Assessment**

Criterion 3. Program Outcomes and Assessment  
*The criterion requires an assessment process, with documented results, that demonstrates that the program outcomes are being measured and indicates the degree to which the outcomes are achieved. The criterion also requires evidence that the results of this assessment process are applied to the further development of the program.*

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**What of Engineering Programs Responsible for?**

**Assess Outcomes a-k:**

- a) an ability to apply knowledge of mathematics, science, and engineering;
- b) an ability to design and conduct experiments, as well as to analyze and interpret data;
- c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- d) an ability to function on multi-disciplinary teams;
- e) an ability to identify, formulate, and solve engineering problems;
- f) an understanding of professional and ethical responsibility;
- g) an ability to communicate effectively;
- h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- i) a recognition of the need for, and an ability to engage in life-long learning;
- j) a knowledge of contemporary issues; and
- k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

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### Assessment Plan (4)

- ▶ PO: Program Outcome
- ▶ CO: Course Outcome
- ▶ POI: Program Outcome Indicator
- ▶ POA: Program Outcome Activity
  - Each has scoring rubric between 0-1
  - direct POA (embedded exam questions and/or rubric evaluations)
  - indirect POAs (student course survey data)

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### Example: PO A for ECE200

Program Outcome		A		an ability to apply knowledge of mathematics, science, and engineering		Weighted Sum Across Course Outcomes (c):		Importance of Course to Outcome:		3	
Weighted Sum Across (c)	CO (c)	CO Weighting	Weighted Sum Across (c)	POI (i)	POI Weighting	Weighted Sum Across (ca)	POA	POA Weighting	Score (a) (0-1)		
0.82	Understanding number conversions to different bases and binary addition.	0.50	0.80	A.1 Models problems using math, science and engineering knowledge	0.50	0.75	Homework #1	0.75	0.68	Student Evaluation Data	
										0.25	0.95
				A.2 Solves problems using math, science and engineering knowledge	0.50	0.85	Midterm	0.75	0.82	Student Evaluation Data	
										0.25	94.60%
	Understanding arithmetic circuits such as ripple-carry adders and comparators.	0.50	0.84	A.1 Models problems using math, science and engineering knowledge	1.00	0.84	Homework #5	0.75	0.85	Student Evaluation Data	
										0.25	0.79

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### Example: CO that support PO A

Program Outcome		A		an ability to apply knowledge of mathematics, science, and engineering		Weighted Sum Across Course Outcomes (c):		Importance of Course to Outcome:		3	
Weighted Sum Across (c)	CO (c)	CO Weighting	Weighted Sum Across (c)	POI (i)	POI Weighting	Weighted Sum Across (ca)	POA	POA Weighting	Score (a) (0-1)		
0.82	Understanding number conversions to different bases and binary addition.	0.50	0.80	A.1 Models problems using math, science and engineering knowledge	0.50	0.75	Homework #1	0.75	0.68	Student Evaluation Data	
				A.2 Solves problems using math, science and engineering knowledge	0.50	0.85	Midterm	0.75	0.82	Student Evaluation Data	
										0.25	94.60%
	Understanding arithmetic circuits such as ripple-carry adders and comparators.	0.50	0.84	A.1 Models problems using math, science and engineering knowledge	1.00	0.84	Homework #5	0.75	0.85	Student Evaluation Data	
										0.25	0.79

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**In any given year...**

- ▶ 8-10 courses are assessed
  - 35-50 Program Outcomes
  - 100-150 Program Outcome Activities
- ▶ AY 07-08: Paper surveys
  - By hand analysis takes 2 person/months
  - About 20 BOXES of data
- ▶ AY 08-09, 09-10: Paper and Online Evals
  - Analyzed in Excel : 1 person/month
  - Excel Docs with >150 sheets
- ▶ **AY 10-11: Enter AEFIS 3.0**



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**Automation of Data Collection : AEFIS**

- ▶ Currently Provides:
  - Student Course Satisfaction Surveys
  - Faculty Course Satisfaction Surveys
  - Continuous Quality Improvement
  - Syllabus creation and management
  - Course Outcome evaluations
- ▶ In progress to add capabilities:
  - Notification to instructors of Direct Assessment needs in their courses.
  - Collection and analysis of direct assessments including embedded exam questions and rubric execution.
  - Notification to College & Department administrators of 'red flag' changes in course outcomes analysis (fluctuations of 10+%)

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**Session Outline**

- Introductions and Preface – 5 min
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Untra Academic Management Solutions, LLC – 15 minutes
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## Data Organization Small Group Activity and Discussion

Dr. Adam Fontecchio, Drexel University College of Engineering, Philadelphia, Pennsylvania, USA

### What data are you collecting now?

Direct Assessment (Student Performance) :

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Indirect Assessment (Survey, Questionnaire, Non-Performance Based) :

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**GROUP BRAINSTORM** : What additional assessment data should be collected? Why?

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### How is data stored or organized?

- Paper documentation (Accessible)
- Paper documentation (Inaccessible)
- Digitally (Accessible)
- Digitally (Inaccessible)

### How is data analyzed and applied?

Direct Assessment (Student Performance) :

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Indirect Assessment (Survey, Questionnaire, Non-Performance Based) :

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Are these practices effective to improve personalized student learning? Why?

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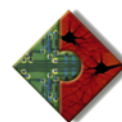
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**GROUP BRAINSTORM** : How could these practices be improved to benefit personalized student learning?

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Indianapolis, Indiana  
April 16, 2011



**Mr. Mustafa Sualp**  
Untra Academic Management Solutions, LLC  
President  
[msualp@goAEFIS.com](mailto:msualp@goAEFIS.com)

**Ms. Becky Joyce**  
Untra Academic Management Solutions, LLC  
Operations Coordinator  
[bjoyce@goAEFIS.com](mailto:bjoyce@goAEFIS.com)

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*An Example Knowledge Management Solution*

**Academic Evaluation, Feedback and Intervention System**

Connecting **ASSESSMENT** to Teaching and Learning



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**What should take part in academic assessment?**

Faculty, students, administrators, alumni, industry?

**All stakeholders!** Many sources of information that need to be collected from and delivered to many stakeholders...

The diagram illustrates a continuous cycle of information exchange. At the top, a blue arrow points from left to right, passing over icons for Students, Faculty, Administrators, and Alumni. Below this, four vertical arrows point upwards from the icons back to the top arrow, indicating that each stakeholder provides input to the overall assessment process.

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**What is AEFIS?**

Web-based assessment management solution for:

- ▶ Quality assurance processes
- ▶ Accreditation documentation generation
- ▶ Transparent reporting across institution

The diagram features a central blue circle with the AEFIS logo. Surrounding it are four colored segments: a green segment for 'LEARNING', a red segment for 'ASSESSMENT', a blue segment for 'TEACHING', and an orange segment for 'STUDENTS'. Each segment is accompanied by a small icon representing that stakeholder group.

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**What does AEFIS do?**

**AEFIS Core System**

- Web based portal for all assessment activity by all user groups (role based permissions)
- User Specific Dashboards with Action Items and Access to System Functions
- Integration with Academic Management Systems through automated data import, validation and processing

**Student Learning Outcomes, Performance Criteria and Rubrics Management**

- Develop Performance Criteria and Rubrics for SLOs at various institutional levels
- Create equivalences to measure assessment once and report to multiple outcomes
- Development and Approval Process, History and more...

**Program Design and Alignment Management**

- Document Program Design and engage stakeholders in processes
- Map SLOs and Program Educational Objectives to courses
- Development and Approval Process, History and more...

**Direct & Embedded Assessment Measures Management**

- Create and manage outcomes based direct assessment measures and embed them into the curriculum
- Set goals for student performance in a program
- Document Intervention Plans to ensure continuous improvement

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**What does AEFIS do?**

**Course Syllabus Management**

- Centralized access to Syllabus History, Notes, Recommendations, Objectives, Outcomes Mapping, Approval Process and more...

**Meeting Minutes and Accreditation Document Management**

- Create and manage meeting minutes to maintain an accessible, context based document repository for assessment and accreditation information and more...

**Student and Faculty Course Evaluations and Survey Management**

- Student Surveys, Faculty Surveys, Mid-Program Examinations, Senior Exit Survey, Alumni Surveys, Employer Surveys and more...
- Invitation/Reminder Messaging, Raffle Management and more...

**Assessment and Accreditation Reporting**

- Generate reports for assessment planning and accreditation documentation
- Dashboard graphic and data reports based on user roles
- Export reports to PDF and Microsoft Excel

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**Key Benefits of Knowledge Management Solutions**

- ▶ Enhance and **streamline the accreditation process**
- ▶ Utilize a true **institutional curriculum design and alignment tool** to enhance curriculum development at an institutional level
- ▶ **Actively involve all stakeholders** – students, faculty, administrators and alumni in fulfilling the mission of the academic organization with less stress
- ▶ **Eliminate challenges** for transitioning to a culture of assessment
- ▶ **Manage direct and indirect assessment** with extraordinary ease
- ▶ Make “**Closing the Loop**” practical and manageable ♻️

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**Closing the Loop**

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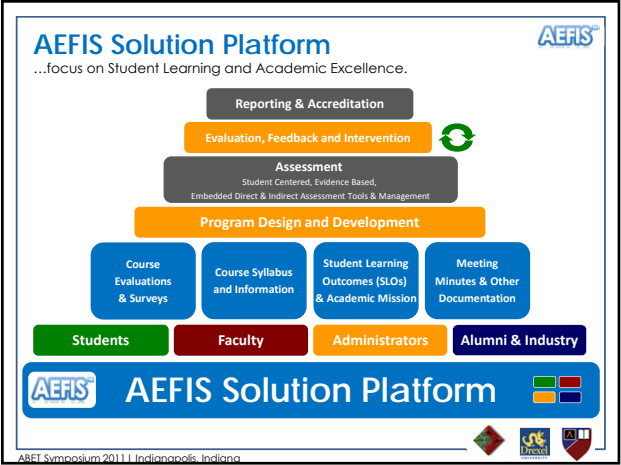
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**Evolutionary, Not Revolutionary Processes**

**AEFIS Academic Implementation Levels**

	Level 1	Level 2	Level 3	Level 4
<b>Survey Tools</b> Design and deploy custom surveys	✓	✓	✓	✓
<b>Course Evaluation Tools</b> Automate custom evaluations and manage results	✓	✓	✓	✓
<b>Syllabi Repository</b> Develop course objectives for indirect assessment		✓	✓	✓
<b>Academic Program Management</b> Design academic programs and manage student learning outcomes			✓	✓
<b>Direct Assessment Measures Management</b> Plan and document embedded assessments and manage direct assessment results				✓

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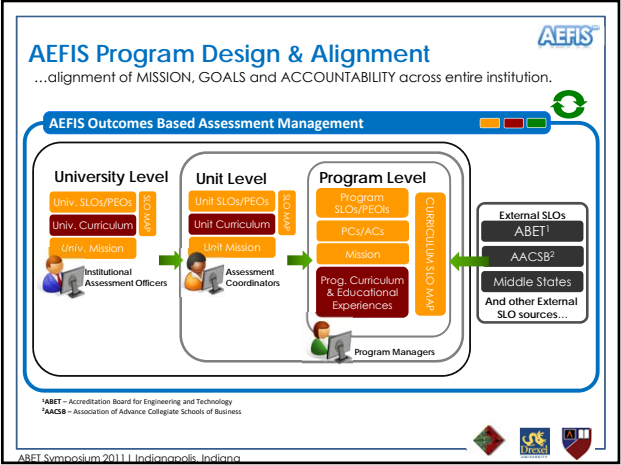
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### Dealing with Outcome Inflation

**Student Learning Outcomes**

**Institutional**

*"Upon graduation, students will demonstrate an improved ability to... Employ an understanding of audience, purpose and context to communicate effectively in a range of situations using appropriate media."*

Drexel University Student Learning Principles, 2010

**Academic Unit**

*"Communication Skills - to apply verbal, written, visual and listening skills to communicate persuasively and coherently to diverse audiences."*

Cal Poly Pomona, 2008

**External**

*"Ability to communicate effectively."*

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### Effective Reporting of Direct Assessment

**Student Learning Outcomes**

**Program Specific Outcome (Equivalency)**  
*"Ability to communicate effectively."*

**Assessment Measurement Tool**  
(AEFIS Toolkit)

Test Question | Homework | Project

→

**Report on Institutional Outcomes**

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**Report on Academic Unit (College) Outcomes**

→

**Report on External Outcomes**

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### Developing Course Sections within Curricula

**Course Catalog Management**

**Course A**

**Course Description**  
from University Systems

**Course Details**  
(i.e. credits, pre-requisites) from University Systems

**Course Objectives**

**Course Syllabus Defaults**  
(Master Syllabus)

Defaults are established at the College / Department / Program Level by Assessment Administrators.

**Course Section Management**  
**Course Section Dashboard**

**Course A – Section 1**

Course Catalog Information

Course Section Specific Objectives

Course Section Specific Syllabus Details

Enrollment

Direct Assessment Results

Indirect Assessment Results

**Course A – Section 2**

Course Catalog Information

Course Section Specific Objectives

Course Section Specific Syllabus Details

Enrollment

Direct Assessment Results

Indirect Assessment Results

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## Thank You!

- ▶ Thank you for joining us!
- ▶ Please see us if you have any questions
- ▶ Interested in getting involved?
  - AEFIS is currently seeking 3.0 Partner Program Participants
  - Learn more at [www.goAEFIS.com/partner](http://www.goAEFIS.com/partner)
  - Contact us at [info@goAEFIS.com](mailto:info@goAEFIS.com)

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