Spring 2015

**Academic Unit Assessment Panel**

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Assessing Professional Writing and Public Speaking in the Haworth College of Business

Barb Sagara, Learning Goal Champion for Communication Skills
Informal Quick-Draw poll

How many of you believe our students

• Express themselves professionally in writing
• Do not express themselves professionally
• Have acceptable oral presentation skills
• Do not have acceptable skills
Our Sheriff—the LAW!
Association to Advance Collegiate Schools of Business

Accreditation Requirements and Guidelines from AACSB:
1. Partner with stakeholders to develop learning goals
2. Create formal assessment plan for each goal
3. Design assessments
4. Administer assessments
5. Collect data
6. Collect anecdotal and indirect assessment data (exit surveys)
   – then . . .
then . . .

7. Analyze data

8. Report problems in ANY area

   (AACSB “Sheriff” doesn’t trust too many “good” results)

9. Determine steps to “close the loop” for issues

10. Reassess process and product after changes made

HCoB has also:

• Selected “Assessment Champion” for each goal
• Created Assurance of Learning Council of champions
Our good, bad, and ugly story

Successes and changes so far
We’ve learned assessment done right can blast the way to even better programs, courses, goals, processes, and student outcomes!
We’re providing more support for international students in MBA program

• Assessment data supported observations these students needed additional training in:
  – oral presentations
  – source citations
  – argument support

• New class created in partnership with CELSIS

• Entrance interview places students—conducted by three faculty members

• Course being offered for second time

• Students tracked to measure success in MBA program
We have a new Assurance of Learning Award

Honors faculty or staff members who assist ALC collecting data or implementing changes

• First winner is Barbara Caras-Tomczak, Manager of the MBA Program Office
  – Developed new MBA entrance interview
  – Created class syllabus with CELSIS faculty
  – Championed class through Graduate Program Council and Curriculum Committee
  – Tracks students in program
We have a new Communication Center

Provides one-on-one help with writing or presentation assignments for any class

In third year, with use doubling every year

Many faculty require visits, especially for team presentations
We have a Professional Written and Oral Communication Standards Statement (for syllabi)

• Handout provided
We implemented a new assessment cycle

• Compiled lots of data
• STOP collecting data in every year
• START spending equal amount of time discussing and implementing needed changes
• Two year cycle now in place:
  – assess one year (2015),
  – work on findings and solutions other year (2016)

Cycle the wagons!
We learned to document everything

Create a living “history” for each learning goal

• Show initial ideas, implementation
• Discuss errors, problems
• Explain changes, new assessments and outcomes

Show continuous improvement
Our good, bad, and ugly story

The Bad
Baccalaureate writing assessment comes full circle

- BCM faculty developed assessment plan 2005, began 2006
- Common writing assignment given
- Submissions redacted of student/faculty information, combined, random sample of 20% pulled
- Team assessed samples
- First round met benchmark of 70%, none since have met the benchmark (benchmark raised to 75% in 2012)
Trends in Assessment Outcomes for Writing Communication Skills

- Benchmark %
- Actual %

- 2006: 70%, 72%
- 2008: 70%, 54%
- 2010: 70%, 68%
- 2012 Spring: 75%, 62%
- 2012 Fall: 75%, 45%
- 2013 Fall: 75%, 59%
AACSB and faculty unhappy

• AACSB 2010 visit and assessment trainer:
  – Sample size too small—sample at least 40%
  – Rubric needed (excellent advice—made one with input from faculty in several departments)
• Faculty didn’t like common case, so we modified process
  – Faculty chose own case in genre (2009-present)
  – Faculty assessed 100% of their own writing assignments
  – Sent rubrics to champion
• Champion combined data and reported to ALC
• Tried new process for 5 years
Solution created serious control issues

- Cases varied widely in complexity
- Prompts varied
- Administration varied:
  - some had students do case in class (lab),
  - others let students take case home,
  - others used peer review/second drafts for submission
- Everyone complained they were doing more work
- When results collected, intolerable variance reduced reliability

- BUT aggregated data still showed same poor results
Returning to original assessment plan

- With changes
  - More faculty discussion, input, and training
  - Group selects case
  - Training so consistent prompts will be given to all students
  - No coaching or peer reviews allowed
- 40% sample size using rubric
- Don’t anticipate outcome changes in aggregate, but compiling results will cause less aggravation!
Process failure is part of assessment

You see, in this world there's two kinds of people, my friend: Those with loaded guns and those who dig. You dig.

~ Clint Eastwood
Budget issues stalling progress

Data prove need for MORE communication training

Changes proposed

• Increase writing instruction in baccalaureate writing
• Move public speaking and career prep activities
• Create new class 2000-level class for those two topics

Currently pending approval for additional resources (faculty lines)

Really tough in our budget reality (on hold in UPC more than a year already)
Our good, bad, and ugly story
Non-tenured and non-promoted faculty worries are pretty ugly

- Fear assessment outcomes reflect on their teaching
- Worry results will affect their tenure and promotion trajectory
- May provide inappropriate help to boost students’ scores
Ugly assessment champion stressors

- Some learning goal champions, not yet tenured, are in “untenable” position
- Must convince some faculty to participate against their wishes
- Those same faculty may sit on tenure/promotion committees in future
My UGLY initial reaction to being asked to serve as a Learning Goal Champion for communication

“It feels like you are holding a gun to my head!”
Was I surprised!! What I thought would be ugly turned out “Good”

• Met faculty in other departments
• Developed close relationships and friendships
• Find even our arguments stimulating

“I'll sleep better knowing my good friend is by my side to protect me.” Blondie quote from The Good, The Bad, and The Ugly
Our good, bad, and ugly story
Professional Written and Oral Communication Policy

Effective communication skills are critical to Haworth College of Business students’ personal and professional success. In accordance with the College’s learning goal that students must be effective communicators, business students must practice professional standards in written and oral communications. Students’ assignments, therefore, must meet minimum standards to be acceptable. Standards for written work address errors in form including spelling, punctuation, format, and basic grammar, as well as technical English errors.

Standards for oral work include professional demeanor in dress, physical presentation delivery skills, quality of graphic support, and the above standards for written work. If these standards are not adhered to, the student’s grade will be adjusted accordingly. Students are encouraged to seek assistance through the HCoB Communication Center.
Assessment for Accreditation
(among other things, of course….)

Betsy M. Aller, PhD, CAPM
Associate Professor
Dept. of Engineering Design, Manufacturing, and Management Systems
College of Engineering and Applied Sciences

Assessment in Action Day 2015
Western Michigan University
3 April 2015
Assessment at the CEAS

- Engineering and engineering technology programs are accredited
- Accreditation Board for Engineering and Technology (ABET)
- Student learning outcomes (goals) are provided
- Visits every six years (or – uh-oh – more often)
What we start with….  

**General Criterion 3. Student Outcomes** *(commonly known as “A through K”)*

The program must have documented student outcomes that prepare graduates to attain the program educational objectives.

(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 multidisciplinary 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

(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
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(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
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
What we used to do with it....

• Identify where A-K took place
  (“Who’s teaching writing?” “Who’s got experiments?” “Does anyone do ethics??” “I’m an engineer – I don’t teach writing!”)
• Assign responsibility to gather materials
• Listen to folks complain about gathering materials / jargon
• Gaze hopelessly at big piles of materials we didn’t know what to do with
• Wait for the visit, and hope for the best
### IME Program Objectives

<table>
<thead>
<tr>
<th>ABET a-k (EAC/AC)</th>
<th>K / a</th>
<th>B / c</th>
<th>K / a</th>
<th>E / f</th>
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<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Ability to use electronic tools - CAD, office, research, communication, etc. – in an engineering or technical environment</td>
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<td>b. Ability to apply scientific methods through experimentation</td>
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<td>c. Ability to define problems, design solutions, and compare alternatives to technical problems</td>
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<td>d. Ability to apply logical decision-making techniques</td>
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<td>e. Ability to critically analyze, evaluate, and improve manufacturing processes using appropriate engineering materials / principles</td>
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<td>f. Ability to use and modify computer-aided design and computer-aided analysis tools</td>
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<td>g. Ability to apply systems theory and management techniques to manufacturing and service industries</td>
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<td>h. Ability to design and/or model industrial systems to optimize the utilization of people and facilities</td>
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<td>i. A commitment to quality, timelines, and continuous improvement</td>
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<td>j. Ability to identify and use tools and technologies in appropriate program-specific settings</td>
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<td>k. A demonstration of good oral, written, and graphical communication</td>
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<td>l. A recognition of the need for, and an ability to engage in, lifelong learning, including participation in professional societies, lectures, and maintaining currency in one’s field of study</td>
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<td>m. Understanding of ethical behavior in engineering and technology fields</td>
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<tr>
<td>n. Understanding of the professional, societal, and global impact of technology and engineering activities</td>
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</table>

#### Class

- **IME 102**: K / a
- **IME 122**: K / a
- **IME 200**: K / a
- **IME 281**: K / a
- **IME 283**: K / a
- **IME 284**: K / a
- **IME 300**: K / a
- **IME 305**: K / a
- **IME 352**: K / a
- **IME 357**: K / a
- **IME 387**: K / a
- **IME 402**: K / a
- **IME 416**: K / a
- **IME 452**: K / a
- **IME 491**: K / a
- **IME 492**: K / a

#### Counts

- **1a**: 1
- **1b**: 1
- **1c**: 1
- **1d**: 1
- **1e**: 1
- **2a**: 2
- **2b**: 2
- **2c**: 2
- **2d**: 2
- **2e**: 2
- **3a**: 3
- **3b**: 3
- **3c**: 3
- **4a**: 4
- **4b**: 4
- **Total-Pgm Obj**: 23

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**A-K, tied to program courses (most removed from this list), showing the many courses in which that criterion is evident. Materials used to be collected from many courses. Not a good system.**
What we’ve done with it now….

- Identify program educational objectives (PEOs)
- Tie “A-K” to program educational objectives
- Articulate performance criteria (PCs) for each A-K
- Identify courses in program where A-K are evident, can be assessed
- See where there’s redundancy; remove it
- Assign course coordinators to assess
- Did all this in series of dept. / program retreats

Yikes. Here’s what it looks like ….
<table>
<thead>
<tr>
<th>PEOs</th>
<th>TAC Student Outcomes</th>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Manage projects, people, and resources effectively</td>
<td>A1. Selects appropriate CAx tools throughout the design process.</td>
<td>A1. Demonstrates the use of one or more tools (CAD, Word, Excel, Power-Point, CAx) in presentation, analysis, research of a design.</td>
</tr>
<tr>
<td>II. Engineer and improve manufacturing and service systems.</td>
<td>A2. Applies knowledge that considers professional, societal, and/or global impact.</td>
<td>A2. Demonstrates the use of one or more tools (CAD, Word, Excel, Power-Point, CAx) in presentation, analysis, research of a design.</td>
</tr>
<tr>
<td>III. Build and use management tools to analyze and solve problems effectively and make decisions from a systems perspective.</td>
<td>A3. Applies systems tools (LP, MSM) to model and solve problems.</td>
<td>A3. Demonstrates the use of one or more tools (CAD, Word, Excel, Power-Point, CAx) in presentation, analysis, research of a design.</td>
</tr>
<tr>
<td>IV. Communicate effectively in verbal, written, and graphical form.</td>
<td>A4. Demonstrates an understanding of technology in society.</td>
<td>A4. Demonstrates the use of one or more tools (CAD, Word, Excel, Power-Point, CAx) in presentation, analysis, research of a design.</td>
</tr>
<tr>
<td>V. Pursue professional growth and interact effectively in work environments.</td>
<td>A5. Demonstrates the need for and an ability to engage in self-directed continuing professional development.</td>
<td>A5. Demonstrates the use of one or more tools (CAD, Word, Excel, Power-Point, CAx) in presentation, analysis, research of a design.</td>
</tr>
</tbody>
</table>

**IME 4910 Alber**

- I1 3-Week ethics sequence 85/85
- K2 Mid-term QFR10 & 12; Gantt chart 100/80
- D5 Project Objectives Statement 95/95
- G2 Interim project report 95/95
- G3 Poster or SEDP presentation (sum. 90/80)
- E2 Technical research paper 85/85
- H2 Job search sequence 90/85

- F1 Sponsor approval of team process, deliverables 85/85

**IME 4930 Alber**

- I1 3-Week ethics sequence 85/85
- K2 Mid-term QFR10 & 12; Gantt chart 100/80
- D5 Project Objectives Statement 95/95
- G2 Interim project report 95/95
- G3 Poster or SEDP presentation (sum. 90/80)
- E2 Technical research paper 85/85
- H2 Job search sequence 90/85

- F1 Sponsor approval of team process, deliverables 85/85

*GROUNDED IN MICHIGAN REACHING FOR THE FUTURE*
## Engineering Management Technology: Program Educational Objectives, Students Outcomes, and Performance Criteria, Mapped to Courses, 2010-2011

<table>
<thead>
<tr>
<th>PEOs</th>
<th>1. Manage projects, people, and resources effectively</th>
<th>2. Engineer and improve manufacturing and service systems.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-K Student Outcomes</td>
<td></td>
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</tr>
<tr>
<td>a. Ability to select and apply the knowledge, techniques, skills, and modern tools of their disciplines to broadly-defined engineering technology activities</td>
<td>j. Knowledge of the impact of engineering technology solutions in a societal and global context</td>
<td>k. Commitment to quality, timeliness, and continuous improvement</td>
</tr>
<tr>
<td>i. An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity</td>
<td>d. Ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives</td>
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<tr>
<td>b. Ability to identify, analyze, and solve broadly-defined engineering technology problems</td>
<td>e. Ability to identify, analyze, and solve broadly-defined engineering technology problems</td>
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<tr>
<td>c. Ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives</td>
<td>f. Ability to identify, analyze, and solve broadly-defined engineering technology problems</td>
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<tr>
<td>a1. Selects appropriate CAx tools throughout the design process.</td>
<td>j1. Evaluates material/product disposal and end-of-use alternatives.</td>
<td>f1. Defines technical problems, compares alternative options, and designs a solution.</td>
</tr>
<tr>
<td>a2. Demonstrates the use of one or more tools (CAD, Word, Excel, Power-Point, CAE) in presentation, analysis, research of a design.</td>
<td>j2. Applies knowledge that considers professional, societal, and/or global impact.</td>
<td>f2. Uses tools (CAx, simulation) to optimize product designs.</td>
</tr>
<tr>
<td>a3. Applies systems tools (LP, MSM) to model and solve problems.</td>
<td>j3. Evaluates societal impact of proposed solutions.</td>
<td>f3. Applies tools and modeling techniques suited to the problem (DFDs, inventory control, FEA, OR, NPV).</td>
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<tr>
<td>a4. ICES #189: This course broadened my perspective of working in a global/societal context.</td>
<td>j4. ICES #189: This course broadened my perspective of working in a global/societal context.</td>
<td>f4. ICES #176: Did you improve your ability to solve real problems in this field?</td>
</tr>
<tr>
<td>a5. Demonstrate an understanding of technology in society.</td>
<td>j5. Demonstrate an understanding of technology in society.</td>
<td>f5. Identifies customer needs and performance criteria.</td>
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</table>

<table>
<thead>
<tr>
<th>Performance Criteria</th>
<th>1. Manage projects, people, and resources effectively</th>
<th>2. Engineer and improve manufacturing and service systems.</th>
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<tr>
<td>A1.</td>
<td>Selects appropriate CAx tools throughout the design process.</td>
<td>f1. Defines technical problems, compares alternative options, and designs a solution.</td>
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<tr>
<td>A2.</td>
<td>Demonstrates the use of one or more tools (CAD, Word, Excel, Power-Point, CAE) in presentation, analysis, research of a design.</td>
<td>f2. Uses tools (CAx, simulation) to optimize product designs.</td>
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<td>f3. Applies tools and modeling techniques suited to the problem (DFDs, inventory control, FEA, OR, NPV).</td>
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<td>A4.</td>
<td>ICES #189: This course broadened my perspective of working in a global/societal context.</td>
<td>f4. ICES #176: Did you improve your ability to solve real problems in this field?</td>
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<tr>
<td>A5.</td>
<td>Demonstrate an understanding of technology in society.</td>
<td>f5. Identifies customer needs and performance criteria.</td>
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<th>IME 4910 Aller</th>
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<td>Mid-term Q#10 &amp; 12; Gantt chart 100/80</td>
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<tr>
<th>IME 4920 IME 4930 Aller</th>
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<tr>
<td>3-Week ethics sequence 85/85</td>
<td>Sponsor approval of team process, deliverables 85/85</td>
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**Left half (first 2 of 5 PEOs) of previous slide**
### Aller: Performance criteria for collection and assessment

**IME 4920 - Spring 2014**

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<thead>
<tr>
<th>Name</th>
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<td>Teams - Peer eval.</td>
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**Ave. score**

| Ave. score | 4.6 | 87 | 90 | 91 | 92 | A- |

**% achieving PC req’d. score**

| % achieving PC req’d. score | 91 | 74 | 96 | 100 | 91 | 96 |

**Summary of assessment activity:**

**Actions for continuous improvement:** See individual report for each performance criterion.
How this works....

• Started from “big picture”
• Tied ABET’s learning outcomes to our situation, needs
• Looked for redundancy; eliminated it
• Established three-year cycle (important!)
• Created templates to help reluctant colleagues
• Set up prominent, visual space in dept. office
• Support our assessment champions
Helpful points....

• Make assessing easier, more authentic (not about grades)
• Locate rubrics for genuine evaluation
• Examples: WeBAL website for communication and teamwork: http://www.wmich.edu/engineer/webal/webal.htm
• Find fellow champions (dept., college, etc.) and share best practices
• Work toward seamless integration
Close the Loop
Summary

• Focus on performance criteria which define and support student learning outcomes.
• Close the loop. Visually, close the loop.
• Make it possible for all to contribute.
• Don’t let it become a huge roadblock.
• Make it work for you (your students, faculty, program, etc.)
• Celebrate your (and your colleagues’) successes!
Thank you,
and please feel free to contact me:

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