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Maintaining Quality Control in Course Development

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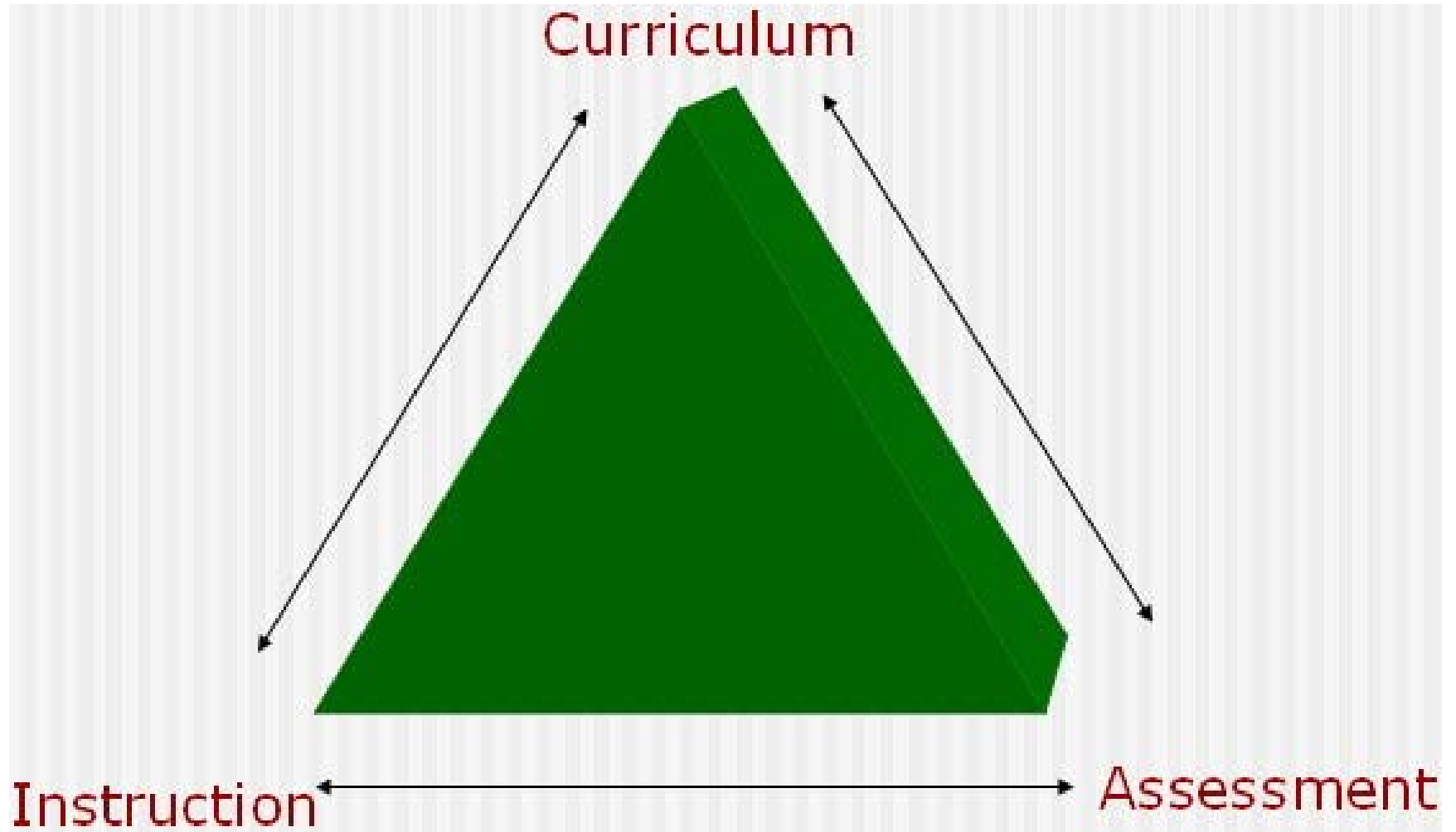
Overview

1. Curriculum and Curriculum Development
 - Curriculum, Cycle
 - Stages, interdependencies
 - Evaluation oriented
 - Context
2. Quality and Quality Control
 - Definitions
 - Measures
3. Illustration – AAU course development and quality control

1. Curriculum

- *Curriculum* means two things: (i) the range of courses from which students choose what subject matters to study, and (ii) a specific learning program.
 - Official/Written: set course of study; any piece of paper, electronic page, reference used in a course
 - Taught: what/how instructor actually instructs with the course materials
 - Learned/Tested: what is measured

Curriculum Cycle



Curriculum Development

Curriculum Development features

- Not an end in itself, but set of stages
 - Identify learning needs
 - Assess student characteristics
 - Develop goals, learning outcomes
 - Organize content
 - Evaluate learning experiences
 - Select learning mode and tools

Curriculum Development

- Stages are interdependent, connected
- Cycle process is evaluation oriented, feedback loops are required
 - External
 - New research
 - External advisors
 - Industry
 - > new goals, outcomes, and programs

Curriculum Development

- Internal - Multiple perspective feedback from
 - Students
 - Faculty
 - Information Technology

- > continual improvement of current curriculum

Curriculum Development

Context

Factors driving curriculum development

- Economic demand
- Organizational structure
- Finance
- Resource allocation
- Accreditation

2. Quality and Quality Control

“If you can't say what quality is, then how do you know what it is, or even that it exists?”

Complex, abstract term, multiple meanings, dependent on stakeholders

Needs to be operationalized in order to measure

Long history of measuring quality education

Quality and Quality Control

History of Measuring Quality in Education

Early Quality Evaluation

- 1838 to the mid 1960's evaluation was based on expert opinion
- earliest recorded education evaluation – only examined outcome, text materials

Modern Quality Evaluation

- national research centers devoted to help local regions with research and evaluation
- Today, focus on processes, content, outcomes qualitatively and quantitatively

Quality and Quality Control

Question: How do we operationalize quality in course development and how do we control quality curriculum development?

Difference between precision and accuracy....

Quality - definitions

Seven general uses of term 'quality' in education:

1. Reputation
2. Inputs and resources
3. Processes – focuses on the use of inputs
4. Content – materials used
5. Outputs, outcomes – short/long term consequences
6. Value added – change over time
7. Selectivity

Quality

Measures applied to CD

- **Reputation** – employment placement of graduates
- **Inputs and resources** – number of faculty/credentials, courses, resources, extent of resources
- **Processes** – measure interaction faculty/students, student engagement, learning
- **Content** – measure attitude, knowledge, skills
- **Outputs, outcomes** – completion ratios, articulation to higher degrees, employment
- **Value added** – measure extent of improvement, need baseline measures
- **Selectivity** – measure level of failures or exclusion

Illustration

Allied American University

- Founded in 2007
- DETC accredited 2008
- 100% online education
- First student October 2008
- Division of Allied Business Schools
 - 1992 founded, distance learning
 - Vocationally based
 - High school

Illustration

AAU – Curriculum

- 2 degree levels, 4 degree programs
 - AS, BS Business Administration
 - AS, BS Computer Information Systems
 - AS, BS Criminal Justice
 - AA, BA General Studies
- 136 courses in entire curriculum
- Courses w/mixed structure, content, style

Illustration - AAU – Challenges

Context

- Economic demand in fields selected, military student focus
- Existing ABS organization
 - shared resource business model among 3 divisions
 - infrastructure in place
 - Launch date Fall 2008, tight deadline
- DETC accreditation received, best practices heavy focus on C&I, faculty/student, evaluation and assessment

Illustration - AAU – Challenges

External

– Research:

- Online education works
- need interaction and engagement
- Need high quality curriculum in relevant areas
- now need to ensure these features implemented

Illustration - AAU – Challenges

Internal - Multiple perspective feedback from

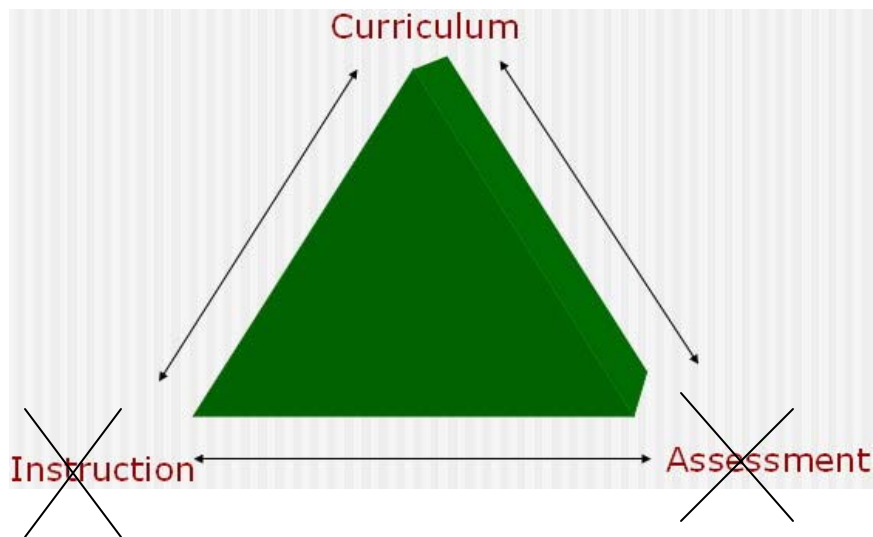
- Students – no actual students to provide feedback
- Faculty – no actual faculty to provide feedback
- Information Technology – experience of administrators, history
- External advisors – used for DETC accreditation

Illustration

AAU – QC/Curriculum Development Baseline

Quality Curriculum Development

- AAU only has 1 aspect of cycle
- To get baseline need to simulate the other two aspects
- Focus on Quality - process and content measures



Illustration

AAU – Capacity Review Project

3 Goals (tracking and monitoring of productivity are to be determined) – all courses completed by Fall 2008

- ***Phase 1*** – *create standard course template*: transfer old courses into the new course template
- ***Phase 2*** - identify the gap categories, fill in the gaps in each course

Illustration

AAU – Capacity Review Project

- **Phase 3** is to provide a final quality control review from two perspectives.
 - **Student perspective** - Quality Control Course Reviewer will provide feedback on course content and on technological / navigation perspectives
 - **Academic perspective** – Quality Control Course Reviewer aligns the course learning objectives to modules, and module learning objectives to module assessments.

Illustration

AAU – CPR Phase 1

- Course structure - general

8 modules

Module Components

Overview	non-graded
Lecture Notes	non-graded
Check your understanding	(CYU) grade weighted
Homework	(HW) grade weighted
Progress tests	(PT) grade weighted
Discussion board	(DB) grade weighted
Final exam	(FE) grade weighted

Illustration

AAU – CPR Phase 1

- Pedagogical goals
 - Measure student learning (assessments)
 - Check your understanding
 - Homework
 - Progress tests
 - Final exam
 - Measure student engagement
 - Discussion board

Illustration

AAU – CPR Phase 1

Missing Components Summary		
Component	Group1 Percent	Group2 Percent
Module 1 - Check Your Understanding	0.68	0.43
Module 2 - Check Your Understanding	0.68	0.52
Module 3 - Check Your Understanding	0.68	0.48
Module 4 - Check Your Understanding	0.68	0.45
Module 5 - Check Your Understanding	0.68	0.47
Module 6 - Check Your Understanding	0.71	0.53
Module 7 - Check Your Understanding	0.71	0.48
Module 8 - Check Your Understanding	0.76	0.66
Module 1 - Homework	0.10	0.62
Module 2 - Homework	0.10	0.52
Module 3 - Homework	0.12	0.47
Module 4 - Homework	0.10	0.53
Module 5 - Homework	0.10	0.40
Module 6 - Homework	0.12	0.53
Module 7 - Homework	0.10	0.48
Module 8 - Homework	0.12	0.38
Module 1 - Progress Test	1.00	0.93
Module 2 - Progress Test	1.00	0.78
Module 3 - Progress Test	1.00	0.78
Module 4 - Progress Test	1.00	0.71
Module 5 - Progress Test	1.00	0.83
Module 6 - Progress Test	1.00	0.72
Module 7 - Progress Test	1.00	0.88
Module 8 - Progress Test	1.00	0.60
Final Exam	0.93	0.34

Illustration

AAU – CPR Phase 2

- 136 courses divided between 3 full-time in-house course developers
- Courses listed in 6 priority categories based on enrollment assumptions
 - 80/20% AS:BS
 - 80/20% transfer student
- Course development rate 2.3 courses/week (handout 1)

Illustration

AAU – CPR Phase 3

- 15 external SME nationwide
 - 80% of courses reviewed
- 3 FT-PT course testers
 - 25% of courses completed as students
- 3 in-house course developers reviewed 100% of each others' courses

Illustration

AAU – CPR Phase 3

Feedback captured on various forms and used in iterative course improvement (handouts 2, 3)

- Forms maintain a historical record of course continual improvement
- Student Form - course module content for consistency and logical flow of information from a student's perspective.
- Academic Form - catalog the alignment between the course learning objectives and course module objectives

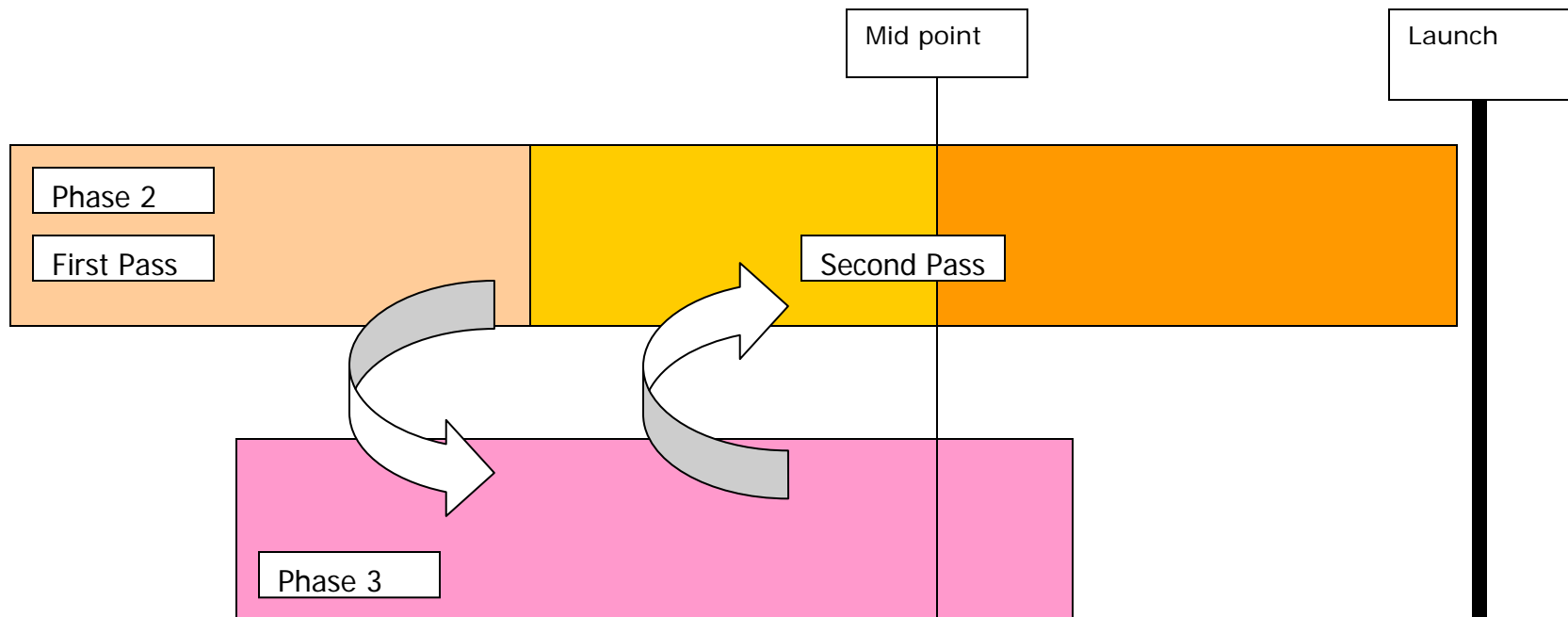
Illustration

AAU – CPR Phase 2 and 3

On a weekly basis

Phase 2 - courses after first upgrade pass into Phase 3
QC

Phase 3 - QC feedback returned to Course Developers
for second pass course upgrade



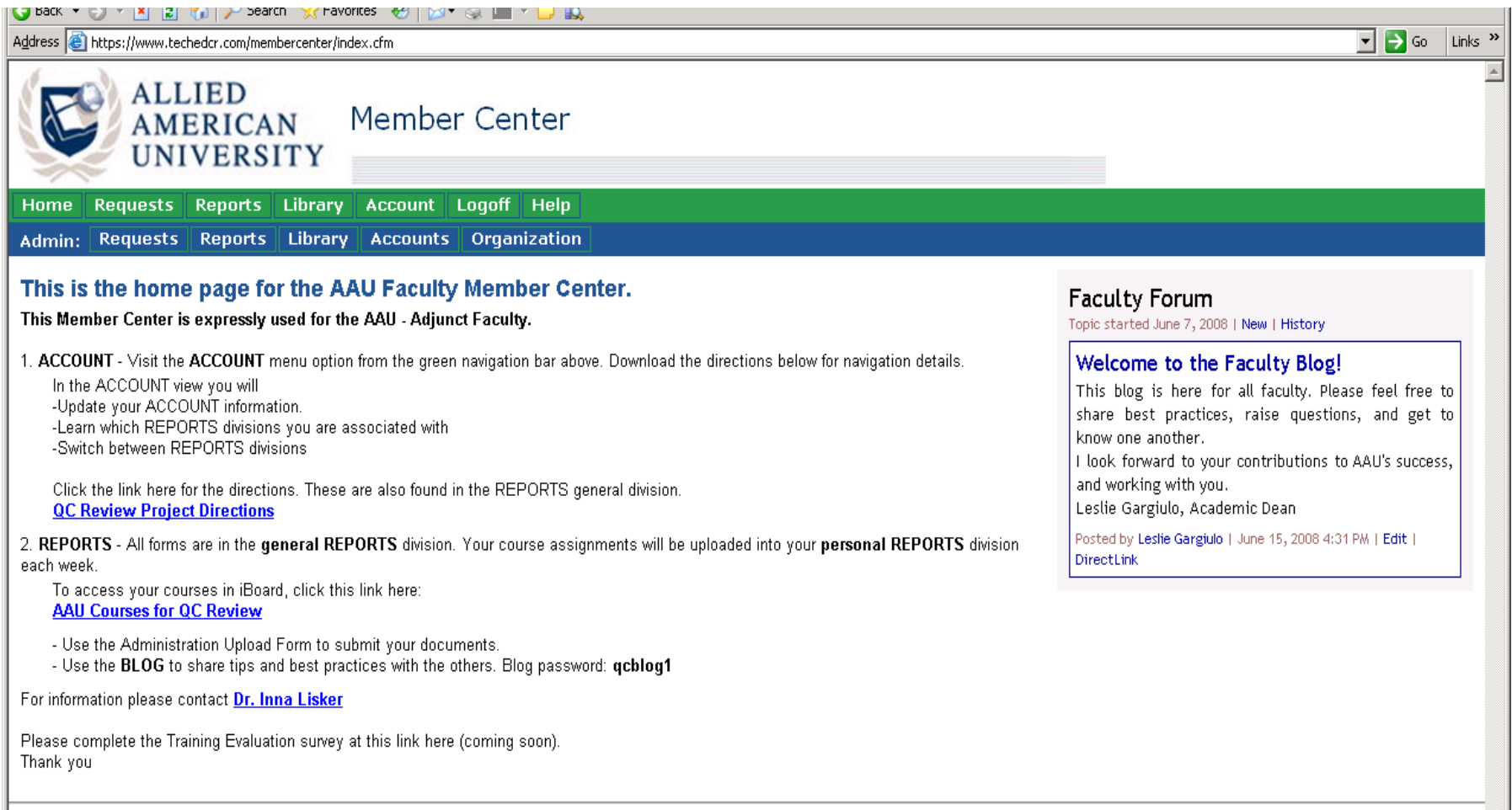
Illustration

AAU – CPR Phase 2 and 3 Challenges

- Varying productivity levels
- Tight deadline
- Need to operate multiple phases/stages simultaneously
- Need to manage multiple data sources w/real time analysis
- Remote personnel to manage
 - Relied on centralized Member Center to manage remote data collection

Illustration

AAU – CPR Phase 2 and 3 Challenges



The screenshot shows a web browser window with the address bar displaying <https://www.techedr.com/membercenter/index.cfm>. The page header features the Allied American University logo and the text "Member Center". Below the header is a green navigation bar with links: Home, Requests, Reports, Library, Account, Logoff, Help. A blue navigation bar below that contains: Admin: Requests, Reports, Library, Accounts, Organization.

This is the home page for the AAU Faculty Member Center.
This Member Center is expressly used for the AAU - Adjunct Faculty.

- 1. ACCOUNT** - Visit the **ACCOUNT** menu option from the green navigation bar above. Download the directions below for navigation details.
In the ACCOUNT view you will
 - Update your ACCOUNT information.
 - Learn which REPORTS divisions you are associated with
 - Switch between REPORTS divisionsClick the link here for the directions. These are also found in the REPORTS general division.
[QC Review Project Directions](#)
- 2. REPORTS** - All forms are in the **general REPORTS** division. Your course assignments will be uploaded into your **personal REPORTS** division each week.
To access your courses in iBoard, click this link here:
[AAU Courses for QC Review](#)
 - Use the Administration Upload Form to submit your documents.
 - Use the **BLOG** to share tips and best practices with the others. Blog password: **qcblog1**

For information please contact [Dr. Inna Lisker](#)

Please complete the Training Evaluation survey at this link here (coming soon).
Thank you

Faculty Forum

Topic started June 7, 2008 | [New](#) | [History](#)

Welcome to the Faculty Blog!

This blog is here for all faculty. Please feel free to share best practices, raise questions, and get to know one another.
I look forward to your contributions to AAU's success, and working with you.
Leslie Gargiulo, Academic Dean

Posted by [Leslie Gargiulo](#) | June 15, 2008 4:31 PM | [Edit](#) | [DirectLink](#)

Illustration

AAU – Launch

- 100% of our curriculum completed CPR Phase 3 and was ready for launch – baseline achieved
- Allied American University launched in October 2008 and we enrolled our first student!
- We look forward to building from our baseline quality control course development database using actual students and faculty

Addendum

Early Quality Evaluation

- 1838 is the earliest recorded education evaluation – only examined text materials
- 1850 Horace Mann – rise of compulsory American education – used printed standardized essays – failed miserably after 2 years
- 1900 Rice – conducted 2 large-scale assessments on spelling and arithmetic
- 1918 Thorndike – leader in developing the field of measurement and testing – objective test format
- 1930 measurement and evaluation considered the same - ½ of US used standardized test in one form or another
- 1950 Tyler conducted the 8 year study setting new standards for education evaluation – used sophisticated scientific methods, linked outcome measures to learning objectives
- 1958 National Defense Act poured \$M's into massive curriculum development in Math and Science in response to Russian Sputnik results revealed education evaluation was dismal – inadequate designs, irrelevant reports
- Up to mid-1960's.

Addendum

Modern Quality Evaluation

- 1966 ESEA – Elementary and Secondary Education Act – provided \$M's for large-scale education funding, but funded proposals had to have program evaluation component

Problem: teachers, administrators weren't technologically, mathematically prepared to conduct evaluations, were not well suited for local, complex social studies

Solution: education scholars (Cronback, Guba, Scriven) proposed new evaluation conceptual frameworks that responded to needs of Title I and Title III

- 1970-present growth in education evaluation as field and profession, national research centers devoted to help local regions with research and evaluation
- Today, focus on processes, content, outcomes qualitatively and quantitatively