Academic Assessment: Comparing ABET, EHAC and HLC Methods

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Objective

Recognize the differences in the outcomes being sought by the following:

■ Higher Learning Commission of the North Central Association of College and Schools (HLC)
■ Environmental Health Science and Protection Accreditation Council (EHAC)
■ Applied Science Accreditation Commission of ABET, Inc

Identify the rationale for these differences.
Higher Learning Commission

- Institutional accreditation addresses overall quality of the organization.
- Does not make judgments about specific programs.
- Accreditation applies to all programs, sites, and methods of delivery of the institution.
- Five Criteria are used to define necessary attributes of the institution.
Criteria One: Mission and Integrity

- Mission documents are clear and articulate.
- Organization recognizes the diversity of learners and other constituencies.
- Support for the mission pervades the institution.
- Governance and administrative structure promote effective leadership.
- Organization upholds and protects integrity.
Criterion Two: Preparing for the Future

- Organization prepares for multiple societal and economic trends.
- Resource base supports the educational programs.
- Ongoing evaluation and assessment processes provide reliable evidence of effectiveness.
- Levels of planning align with mission.
Criteria Three: Student Learning and Effective Teaching

- Goals for student learning outcomes are clearly stated for each educational program.*
- Organization values and supports effective teaching.
- Organization creates effective learning environments.
- Learning resources support student learning and effective teaching.
Criteria Four: Acquisition, Discovery, and Application of Knowledge

- Organization demonstrates that it values a life of learning.
- Organization demonstrates importance of acquisition of a breadth of knowledge and skills (General Education component).
- Organization assesses usefulness of curricula to students.
- Organization provides support to acquire, discover and apply knowledge responsibly.
Criteria Five: Engagement and Service

- Organization learns from its constituencies.
- Organization commits to engage with its constituencies.
- Organization demonstrates responsiveness to its constituencies.
- Internal and external constituencies value the services of the organization.
Method of Assessment

- Plan – Establish Program Outcomes
- Do – Identify what we measure or plan to measure
- Check – Identify methods of evaluating these items
- Act – Describe responses to the evaluation tool
Environmental Safety & Occupational Health (ESOH) PLAN

- It is the intent of all emphases of the ESOH program to develop graduates who can:

1. Apply knowledge of mathematics, science, and applied science to anticipate and recognize environmental, safety and health (ESH) hazards associated with typical workplace settings.

2. As individuals or as members of multi-disciplinary teams, design and conduct experiments to properly measure ESH hazards, analyze and interpret data. Be able to properly use techniques, skills and modern scientific tools necessary to collect this data and make professional decisions.
Environmental Safety & Occupational Health (ESOH) PLAN

- It is the intent of all emphases of the ESOH program to develop graduates who can:

3. As individuals or as members of multidisciplinary teams, formulate or design a system, process or program to control or minimize ESH hazards. This activity requires identifying and solving scientific problems.

4. Explain and apply ESH regulations at a reporting level. Assess an organization’s compliance with ESH regulations.
Environmental Safety & Occupational Health
(ESOH) PLAN

- It is the intent of all emphases of the ESOH program to develop graduates who can:
  5. Communicate technical ESH information to business, regulatory, media, and community audiences, demonstrating knowledge of contemporary issues.
  6. Demonstrate the skills, technical knowledge, and attributes needed to function as members of professional ESH societies and organizations including recognition of the need for life-long learning.
Environmental Safety & Occupational Health (ESOH)  DO

1. Have each student develop a portfolio that will evaluate student’s achievement and predict his/her ability to properly use accepted techniques, skills and modern scientific tools in a non-academic setting to protect human health and the environment.
Environmental Safety & Occupational Health (ESOH) **DO**

2. Employ a questionnaire in ESOH classes to assess whether the class objectives are stated and met, the assignments and activities encourage self-directed thinking, the instructor taught in an effective manner, and that the student actively participated in the learning process.
3. Students participate in at least one supervised and evaluated summer professional experience, internship or co-op where they apply their knowledge in industrial settings.

4. A survey of the graduates of the last five years is conducted to assess whether the learning outcomes of the program have been met. This provides an external assessment.
5. Obtain ABET Accreditation for ESOH program whose objectives are consistent with the stated six objectives. This will provide an external benchmarking.

6. Activate an external Advisory Board to obtain external input regarding curricular recommendations, identifying intern and coop experiences, employment opportunities and scholarship opportunities.
1. Mission, Goals, Objectives
   - Program must have clearly articulated mission, goals and objectives consistent with accreditation.
Environmental Health Accreditation

2. Curriculum

- Responsive to the mission, goals and objectives.
- Organized and structured to integrate and sequence content.
- Competencies must include:
  - Analytical skills,
  - Communication skills,
  - Administrative skills
  - Natural Science – Biology and Chemistry
  - Epidemiology and Toxicology
  - Risk Assessment and Communication
  - Culminating Experience
Environmental Health Accreditation

3. Faculty
   ■ Sufficient full-time equivalent who are academically qualified.

4. Administration
   ■ Appropriate and effective mechanism for administering the graduate program.

5. Students
   ■ Clearly delineate sufficient and appropriate student admission, performance, progress and graduation requirements.
Environmental Health Accreditation

6. Resources
   - Classrooms
   - Laboratories
   - Offices
   - Equipment
   - Supplies
   - Support staff
   - Library materials

7. External Advisory Board
   - Program content and overview
   - Assist in locating intern opportunities.
   - Suggest outside funding.
   - Advocacy
Applied Science Accreditation Commission

- Students and Graduates
  - Requirements and Process for Admission of Students.
  - Faculty Advisement and Guidance of Students.
  - Enrollment and Graduation Trends for Past Five Years.
  - Process and Timeline for Ongoing Evaluation of Student Admission, Retention and Graduation Requirements, Processes and Rates.
Program Educational Objectives

“Educational Objectives” is what all program graduates will be qualified to practice at the time of graduation and what most graduates will be able to achieve.

Applicable Mission Statement.
Program Educational Objectives.
Description of Program Constituencies.
Ongoing Evaluation of Educational Objectives.
Assessing Program Outcomes

“Outcomes” is what a given curriculum will prepare graduates to know and do (competencies). Competencies must reflect an action.

- General Program Outcomes – 11 Identified.
- Specific Program Outcomes – 15 Identified.
- Relate Each Course in the Curriculum to the General and Specific Program Outcomes.
- Process and Timeline for Ongoing Assessment of Outcomes.
Applied Science Accreditation Commission

- Professional Component
  - Syllabi.
  - All materials used in the course.
  - Frequency and number of students in each course.

- Faculty
  - Teaching Activities.
  - Research and Scholarly Activities.
  - Service Activity.
Applied Science Accreditation Commission

- Facilities
  - Office Space.
  - Classroom Space.
  - Laboratory Space.
  - Library Resources.
  - Computer Resources.
  - Major Instructional and Research Field and Laboratory Instruments/Equipment.

- Institutional Support and Financial Resources
  - Program Budget Process and Sources of Financial Support.
Steps in the Accreditation Process

- Develop a rationale for the accreditation.
- Articulate that to administration.
- Give your self enough time.
- Seek outside assistance.
- Get universal buy in by the faculty.
- Collect more data than you think you will need.
- Keep a sense of humor.
Assessment

Is this really how you feel?