JABEE
Evaluation & Accreditation Procedure

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Chair of JABEE Evaluation & Accreditation Coordination Committee

April 2015
Outline of Presentation

- Introduction and Background
  Japanese Circumstances and JABEE’s Perspective

- Fundamentals of Accreditation
  Categories of Accreditation
  Accreditation Documents

- Activities of Examination Team

- Process to Final Accreditation Decision

- JABEE’s New Challenges
  Bundle Examination
  Provisional Accreditation
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JABEE’s Perspective

- Emphasized on learning outcomes (Outcomes-based Evaluation)
  - What kind of students are allowed to graduate

- Publicize learning outcomes
  - Disclosure of knowledge and abilities the graduates must attain
  - Contractual obligation of the HEI with society and students

- Assurance of international substantial equivalency of the learning outcomes
  - Indication of achievement level

- Continuous improvement

- Program operating organization is responsible to proof learning outcomes.
  - Evaluation results of learning outcomes
  - Exam question/result, graduation research paper, graduation work etc.

- Accountability, about
  - Fostering internationally competent engineers
  - Equivalency of the ability and knowledge of graduates with a persons qualified the 1st step P.E. Exam
Why do we need the quality assurance in engineering education by the third party?

- The 1st step to *professional*

Graduate Attributes: Indicate that program objectives are satisfied

Accredited Program

Practice

Training and Experience

Meet Standard for Professional Competency

Meet Standard for Engineering Education

Observe Code of Conduct and Maintain Competence
Educational outcomes must inevitably given, not happen

- Educational program is planned in advance, connected with its goal and/or objectives, about graduates’ performance and knowledge (not “what is taught” but “what is equipped”)

- If so, the educational program can be trusted as assured human resource development. (Graduates are expected a certain level of their knowledge and competency)
Graduate Attributes & Disclosure of Three Policies of Admission, Curriculum and Diploma by MEXT

Exemplified graduate attributes:

1. Knowledge and understanding
   i. Understanding of knowledge of multiple/different cultures
   ii. Understanding of knowledge of human culture, society and nature

2. Versatile skill
   i. Communication skill
   ii. Quantitative skill
   iii. Information literacy
   iv. Logical thinking
   v. Problem solving

3. Behaviors and intentionality
   i. Self-control
   ii. Teamwork and leadership
   iii. Ethics
   iv. Social responsibility as civil
   v. Ability of lifelong learning

4. Integrated learning experiences and creative thinking

Each university in Japan has and discloses its diploma policy regarding the attributes
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Structure of Criteria Documents

Fundamental Framework

- Document Structure for Examination and Accreditation, and Definition of Fundamental Terminology
- Standpoint of Accreditation
- Fundamental Principles of Accreditation Criteria
- Category of Accreditation, and Criteria and Documents applicable to each Category
- Definition of Accreditation Fields
- Remarks

Common Criteria

- Applicable to all categories of accreditation

Category-dependent Criteria

- Mandatory items for each category of accreditation
- Items to be considered for each category of accreditation
- Items to be considered by field

Criteria Guides

- By category of accreditation
JABEE’s various Accreditations

- Engineering Education Programs at Bachelor Level (Washington Accord)
- Engineering Education Programs at Master Level
- Computing and IT-related Education Programs at Bachelor Level (Seoul Accord)
- Computing and IT-related Education Programs at Master Level (not launched yet)
- Architectural and Architectural Engineering Education Programs at Bachelor and Master Level (UNESCO-UIA Charter, Canberra Accord)
Structure of Examination and Accreditation-related Documents

Rules & Procedures for Examination and Accreditation

- Scope, Methods and Term of Validity of Accreditation
- Procedures for Examination and Accreditation
- On-site Examination
- Documentation of Examination Report and Responsibility of each Organization on Examination and Accreditation

- Examination Guide
- Standard for Formation of Examination Team
- Code of Ethics for Examiners (including any individuals who involve with examination in terms of Confidentiality)
- PRR (Program Review Report)
- Examination Report
- Document Control Procedure
Training for Examiners

- Organization of Examiner training seminars
  - Prepare Examiner training materials
- Quality Assurance of Examiners
  - Keep examiners records
  - Assess quality of examiners

PDCA
Judgment of Applicability to the Accreditation Criteria

(1) Accept (A)
Applicable examination item meets accreditation criteria.

(2) Concern (C)
Applicable examination item currently meets accreditation criteria however, improvement is expected. It is expected to take measure for continuous and complete accordance with accreditation criteria.

(3) Weakness (W)
Applicable examination item almost meets accreditation criteria currently however, degree of its accordance is low and requires improvement. Measure to increase degree of applicability is required.

(4) Deficiencies (D)
Applicable examination item fails to meet accreditation criteria. The program is not in accordance with accreditation criteria.

(5) Not applicable (-)
The examination item is deemed not to be applied to the scope of examination.
## Format of Program Review Report / Examination Report

### Judgment results

<table>
<thead>
<tr>
<th>Number</th>
<th>Review Item</th>
<th>Large Category of Review <em>(Determine term of validity of accreditation)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Criterion 1 Learning Outcomes</td>
<td><em>(Determine term of validity of accreditation)</em></td>
</tr>
<tr>
<td>1(1)</td>
<td>The program shall define its profile of autonomous professionals to be fostered. The program shall take account of traditions, resources and fields of graduates to define the profile of professionals. The profile of professionals shall be defined by giving consideration to the requirements of the society and the demands of the students. The program shall broadly publicize the profile of professionals. The profile shall be made well-known to the students and faculty.</td>
<td><em>(Determine term of validity of accreditation)</em></td>
</tr>
<tr>
<td>1(2)</td>
<td>The program shall establish its learning outcomes that the graduates are supposed to surly acquire at the time of completion of the program by taking account of profile of autonomous professionals. The learning outcomes shall be knowledge and abilities distinctly defined with benchmarks covering the contents of (a) to (i) listed below. The program shall broadly publicize the learning outcomes. The learning outcomes shall be made well-known to the students and faculty. The learning outcomes shall be established by taking account of items which Category-dependent Criteria specifies in items (a) to (i).</td>
<td><em>(Determine term of validity of accreditation)</em></td>
</tr>
<tr>
<td>2</td>
<td>Criterion 2 Educational Methods</td>
<td><em>(Determine term of validity of accreditation)</em></td>
</tr>
<tr>
<td>2.1</td>
<td>Curriculum Design</td>
<td><em>(Determine term of validity of accreditation)</em></td>
</tr>
<tr>
<td>2.1(1)</td>
<td>(Category-dependent Criteria Attachment 1-1)</td>
<td><em>(Determine term of validity of accreditation)</em></td>
</tr>
</tbody>
</table>

**Expected Improvement**

- XX expected to improve by YY
- XX is not sufficient and required to improve by YY
- XX is accepted based on YY
3 Types of Examinations

- **New Examination**
  - Implement in case of first application for accreditation

- **Interim Examination**
  - Implement to extend the term of validity of accreditation (up to 6 years) when the term of validity given at the last examination was less than 6 years

- **Periodic Examination**
  - Implement to acquire new term of validity of accreditation when previous 6-year term is expired

<table>
<thead>
<tr>
<th>New</th>
<th>Interim</th>
<th>Periodic</th>
<th>Interim</th>
<th>Periodic</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. 1</td>
<td>6 years</td>
<td>3 years</td>
<td>6 years</td>
<td></td>
</tr>
<tr>
<td>e.g. 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.g. 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Relationship among each Examination

New Examination (year X)

Accept(A) and Concern(C) in Examination items

Periodic Examination (Y=X+6 years)

Accept(A) and Concern(C) in Examination items

Periodic Examination (Y+6 years)

Weakness(W) in Examination items

Interim Examination (X+ a years)

Deficiencies(D) in Examination items. Requires re-examination

Interim Examination (Y+ a years)

Accept(A), Concern(C) and Weakness(W) in Examination items

No Deficiencies(D) in Examination items

Additional Interim Examination exceptionally occurs if necessary

Show Cause Examination (X+7 years)

Accept(A), Concern(C) and Weakness(W) in Examination items

Additional Interim Examination exceptionally occurs if necessary

Accept(A) and Concern(C) in Examination items

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**Scheme of Examination (1/3)**

- **New Examination (year X)**
  - Accept(A) and Concern(C) in Examination items

- **Periodic Examination (Y=X+6 years)**
  - Accept(A) and Concern(C) in Examination items

- **Interim Examination (X+a years)**
  - Accept(A), Concern(C) and Weakness(W) in Examination items
  - Deficiencies(D) in Examination items. Requires re-examination
  - No Deficiencies(D) in Examination items

- **Periodic Examination (Y+6 years)**
  - Accept(A) and Concern(C) in Examination items

- **Interim Examination (Y+a years)**
  - (“a” is 3 years in principle)

- **Show Cause Examination (X+7 years)**

- **Additional Interim Examination exceptionally occurs if necessary**

- **No Interim Examination**
  - Best path for study program (and for JABEE, too)

**e.g. 1**

- No Interim Examination
- Best path for study program (and for JABEE, too)

**New Examination (year X)**
- Accept(A) and Concern(C) in Examination items

**Periodic Examination (Y=X+6 years)**
- Accept(A) and Concern(C) in Examination items

**Interim Examination (X+a years)**
- Accept(A), Concern(C) and Weakness(W) in Examination items
- (“a” is 3 years in principle)

**Additional Interim Examination exceptionally occurs if necessary**

**Interim Examination (X+a years)**
- Accept(A), Concern(C) and Weakness(W) in Examination items

**Show Cause Examination (X+7 years)**

**No Interim Examination**
- Best path for study program (and for JABEE, too)
Scheme of Examination (2/3)

- New Examination (year X)
- Weakness (W) in Examination Items
  - Accept (A) and Concern (C) in Examination items
  - Periodic Examination (Y = X + 6 years)
    - Accept (A) and Concern (C) in Examination items
    - Periodic Examination (Y + 6 years)
  - Interim Examination (X + a years)
    - Accept (A), Concern (C) and Weakness (W) in Examination items
    - Deficiencies (D) in Examination items. Requires re-examination
      - No Deficiencies (D) in Examination items
      - Interim Examination (Y + a years)
        - Accept (A), Concern (C) and Weakness (W) in Examination items
      - Interim Examination (X + a years)
        - Show Cause Examination (X + 7 years)
        - Additional Interim Examination exceptionally occurs if necessary

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Scheme of Examination (3/3)

New Examination (year X)

Accept(A) and Concern(C) in Examination items

Periodic Examination (Y=X+6 years)

Accept(A) and Concern(C) in Examination items

Weakness(W) in Examination items

Interim Examination (X+ a years)

Accept(A), Concern(C) and Weakness(W) in Examination items

Deficiencies(D) in Examination items. Requires re-examination

Weakness(W) in Examination items

Interim Examination (Y+ a years)

Accept(A), Concern(C) and Weakness(W) in Examination items

No Deficiencies(D) in Examination items

Interim Examination (Y+7 years)

Show Cause Examination

Accept(A), Concern(C) and Weakness(W) in Examination items

Additional Interim Examination exceptionally occurs if necessary

Weakness(W) in Examination items

Periodic Examination (Y+6 years)

Accept(A) and Concern(C) in Examination items

Periodic Examination (Y=X+6 years)

Accept(A) and Concern(C) in Examination items

Interim Examination (X+ a years)

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Examination & Accreditation Process

Until March 31
- Reception of application for program Examination

April - June
- Formation of examination team
- Reception of self-review report from the program

Until 1st week of July
- Examination based on the self-review report

July - Sept.
- On-site examination

Sept. - Nov.
- Examination report (First & Second)

- Examination committee of the field

- Examination & Accreditation Coordination Committee

February
- Accreditation Commission

February
- JABEE Board of Directors

March - April
- Delivering the report of examination & accreditation to the program
Formation of the Examination Team

1. Application
2. Determination of the Field
3. Request for agreement
4. Recommendation of Examiners
5. Notification of Examination Team
6. Acceptance of Examination Team
7. Appointment

Program Operating Organization (POO)
Examination Team Dispatching Organization (ETDO)
JABEE
Examiner
On-site Examination

Examination and verification by the examination team to confirm and judge whether the program meets accreditation criteria by visiting POO.

1. Examination of Items unable to confirm by only the self-review report
   - Examination of student’s outcomes difficult to indicate in the self-review report
   - Detailed examination of documents analyzed and evaluated from the viewpoint of POO
   - Investigation on real situation of educational activity and environment
   - Interview with person in charge of JABEE matter, faculty, students and the graduates

2. Notification of judgment of examination team in terms of strengths and problems of the program at this point

It is strongly recommended to encourage the program by pointing out not only problems but also strengths of the program.
Flow of Examination

Before
- Examination based on the self-review report and supporting data
- Coordination and Inquiries to the program

Initially schedule 2 nights/3 days
- Examination team meetings
- Interview with related persons & investigation of documents
- Exit meeting (read out executive summary report, hand in program review report to POO)

Output
- Program Review Report (Prior to on-site examination)
- Executive Summary (Only reading out)
- Program Review Report (Exit Meeting at on-site examination)

On-site Examination (Example)

After
- Response to report for additional explanation and/or to written opposition and improvement report if any
- Response Preparation and submission of examination report

1st Examination Report
2nd Examination Report
Workflow of Examination Team

Documentations by the Examination Team

Activities of Examination Team

Documentations by POO

Program Review Report (Prior to on-site examination)

Examination of self-review report

self-review report

Program Review Report (Exit Meeting at on-site examination) Executive Summary

Request for Questions / Support Documents Review for Support Documents

Support Documents

1st Examination Report

on-site examination

Report for Additional Explanation

2nd Examination Report

Review

• Written Opposition
• Improvement Report

Review

Submit to Examination Committee by Field
As long as knowledge and abilities indicated in the learning outcomes are achieved, its approach relies on program’s ingenuity.

Consider that it is evaluation system which respects uniqueness and accepts highly flexible divers approaches.

The most important things are:
- the learning outcomes to be clear and specific
- how the achievement is assured
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JABEE Board of Directors

JABEE Accreditation Commission

Examination & Accreditation Coordination Committee

Final Examination Report

JABEE Board of Directors

JABEE Accreditation Commission

Examination & Accreditation Coordination Committee

Field A Examination Committee

Field B Examination Committee

Field C Examination Committee

Examination Team a

Examination Team b

Examination Team c

Examination Team d

Examination Team e

JABEE Approval

Accreditation Discussion/Decision

Overall Coordination

Coordination by the fields

Examination Report by Field

2nd Examination Report

Engineering Societies
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Teams of Bundle Examination / Formation of Examination Teams

Formation of Examination Team by individual Team

Examination Team

Chair
Examiner1*
Examiner n
Observer

2 to 4 members (1 for Interim in principle)

Formation of Examination Teams by Bundle Examination

* Examiner 1 may be appointed as Vice-chair

Leader of Team Chairs
Sub-Leader of Team Chairs
Observer

Head of Examiner
Sub-head of Examiner
Observer

1 in principle
Leader of Team Chairs communicates with Person in charge of JABEE Matter.
Head of Examiners communicates with Person in charge of Program by each program mainly.

POO

<table>
<thead>
<tr>
<th>Person in charge of JABEE Matter</th>
<th>Program 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person in charge of Program</td>
<td>Program N</td>
</tr>
</tbody>
</table>

Mainly Common items

Mainly Program – oriented item

Group of Examination Teams

Leader of Team Chairs
Sub-Leader of Team Chairs
Observer

Examination Team 1

Head of Examiner
Sub-head of Examiner
Observer

Ex. Team N

Head of Examiner
Sub-head of Examiner
Observer

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Road to Accreditation (Activities of “Program”)

1. Define & Start the “Program”
   - Self-review
   - Educational Improvement

2. Provisional Examination (optional)
   - Consultation / Advise by the “Field” (optional)

3. Determine the year of application for examination

4. Application for accreditation
   - Examination & Accreditation

Accreditation
**Purpose of Provisional Examination**

**Way to Appeal to the Society by the Program under preparation of Examination and Accreditation**

JABEE publicizes that the Program is “Provisionally Accredited” and indicates it to the society that the Program engages quality assurance of the education and Periodic improvement systematically as planned if the Program is determined by the Provisional Examination as highly possible to be accredited under New Examination in the near future.

**Efficient Improvement of the Program towards New Examination**

Provisional Accreditation allows the Program to prepare for New Examination as high-quality Program by early on and efficient implementation of educational improvement based on JABEE pointing out what need to be improved as a Program (decrease the risk not to be accredited).
**View Points of the Provisional Examination**

- **Scope**
  - All programs which prepare for New Examination

- **Method**
  - There is no Accreditation Criteria specific for Provisional Examination (excluding items related to outcomes)
  - No ACWD judgments

- **Result**
  - Program, which is determined as *highly possible* to meet Accreditation Criteria until being examined under New Examination by *improving* items pointed out as problems during term of validity of Provisional Accreditation and appropriately operating its improved program shall be judged as “Provisionally Accredited”.
Provisional Accreditation

Provisional Examination

- Not more than 5 years (no extension)
- Publicize:
  - Program Title
  - Term of validity

New Examination

Can be examined before 5\textsuperscript{th} year (before expiration of validity)
Thank you for your attention