

# Engineering Education and Capacity Building in Myanmar

Dr. Kyi Soe

Rector

West Yangon Technological University

Myanmar

## Myanmar National Education Law

- has been established in 30.9.2014
- amended in 2015.

According to the NEL, National Education Policy Commission was formed

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graph TD; NEPC[NEPC] --- NAQAC[NAQAC]; NEPC --- RC[RC]; NEPC --- NCC[NCC];
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NEPC

NAQAC

RC

NCC

NAQAC National Accreditation and Quality Assurance Committee

RC Rectors Committee

NCC National Curriculum Committee

# Quality Assurance in TU

- **Quality Management System (ISO 9001)**
- **Quality Assurance (IQA, EQA)**

**NAQAC QA Guidelines**

**AUN QA Guidelines**

- **Accreditation (MEngC)**

# Quality Assurance System

- Internal Quality Assurance
- External Quality Assurance

## Two QA Systems

### *ASEAN Universities Network Quality Assurance*

Associate Members: Myanmar Maritime University, TU (Thanlyin), WYTU and TU (Hmawbi)

### *National Accreditation and Quality Assurance Committee*

\*\*\*All HEIs will be assessed and evaluated by NAQAC according to National Education Law

# AUN QA Criteria

## Program Level Assessment

- 1. Expected Learning Outcomes
- 2. Programme Specification
- 3. Programme Structure and Content
- 4. Teaching and Learning Approach
- 5. Student Assessment
- 6. Academic Staff Quality
- 7. Support Staff Quality
- 8. Student Quality and Support
- 9. Facilities and Infrastructure
- 10. Quality Enhancement
- 11. Output

# **National Accreditation and Quality Assurance Committee**

- **NAQAC Higher Education Quality Assurance Standards**
- **(Third Draft: 9<sup>th</sup> December, 2017)**

	<b>Areas of Standards</b>	<b>Number of Standards</b>
1	Missions, Vision, and Educational Goals	3
2	Governance and Leadership	8
3	Strategic Planning	3
4	Policy Formulation and Implementation	3
5	Teaching Learning Process Management	4
6	Managing Human Resource and Academic Staff	4
7	Financial and Physical Resources Management	5
8	Research Management	5
9	Student Assessment	2
10	Curriculum	3
11	Student Services and Supports	3
12	Community Engagement and External Relation	3
13	Internal Quality Assurance System	4
14	Outputs and Results	4
15	Distance Education Programmes	xxx
	Total	54



# Accreditation

- The action or process of officially recognizing someone as having a particular status or being qualified to perform a particular activity.

# Who will participate?

The following is the list of **stakeholders** contributing to the accreditation process.

1. **Engineering Education Accreditation Committee(EEAC)**
2. **Engineering Degree offering programs**
3. **Academic/Support staff**
4. **Students**
5. **Alumni**
6. **External examiner**
7. **Industry Advisory Panel**
8. **Employers and industry supervisors**

# **INTERNATIONAL ENGINEERING ALLIANCE (IEA)**

- **Washington Accord (1989)**
- **Sydney Accord (2001)**
- **Dublin Accord (2002)**
- **Seoul Accord (2008)**
  
- ❖ **APEC Engineer Agreement (1999)**
- ❖ **International Professional Engineers Agreement (2001)**
- ❖ **International Engineering Technologist Agreement (2003)**

# 17 Signatories of Washington Accord

- Australia - Represented by [Engineers Australia \(1989\)](#)
- Canada - Represented by [Engineers Canada \(1989\)](#)
- Chinese Taipei - Represented by [Institute of Engineering Education Taiwan \(2007\)](#)
- Hong Kong China - Represented by [The Hong Kong Institution of Engineers \(1995\)](#)
- India - Represented by [National Board of Accreditation \(2014\)](#)  
*(Applies only to programmes accredited by NBA offered by education providers accepted by NBA as Tier 1 institutions.)*
- Ireland - Represented by [Engineers Ireland \(1989\)](#)
- Japan - Represented by [Japan Accreditation Board for Engineering Education \(2005\)](#)
- Korea - Represented by [Accreditation Board for Engineering Education of Korea \(2007\)](#)
- Malaysia - Represented by [Board of Engineers Malaysia \(2009\)](#)
- New Zealand - Represented by [Institution of Professional Engineers NZ \(1989\)](#)
- Russia - Represented by [Association for Engineering Education of Russia \(2012\)](#)
- Singapore - Represented by [Institution of Engineers Singapore \(2006\)](#)
- South Africa - Represented by [Engineering Council of South Africa \(1999\)](#)
- **Sri Lanka** - Represented by [Institution of Engineers Sri Lanka \(2014\)](#)
- Turkey - Represented by [MUDEK \(2011\)](#)
- United Kingdom - Represented by [Engineering Council UK \(1989\)](#)
- United States - Represented by [Accreditation Board for Engineering and Technology \(1989\)](#)

## WA Graduate Attributes

- 1. Engineering Knowledge
- 2. Problem Analysis
- 3. Design/ development of solution
- 4. Investigation
- 5. Modern Tools Usage
- 6. The Engineer and Society
- 7. Environment and Sustainability
- 8. Ethic
- 9. Individual and Teamwork
- 10. Communication
- 11. Project Management and Finance
- 12. Lifelong Learning

## EEAC Accreditation Qualifying Requirements

1. Outcome-based Education (OBE) implementation.
2. A minimum of 135 SLT credits\* of which 90 SLT credits\* must be engineering courses offered over a period of four years
3. Integrated design project (IDP).
4. Final year project (minimum six (6) credits )
5. Industrial training (minimum of 8 weeks)
6. Full-time academic staff (minimum of eight (8)) with at least three (3) Registered Engineers with the MEngC or equivalent.
7. Staff: student ratio 1: 20 or better
8. External examiner's report (minimum of two reports over five years)

\* SLT - Student Learning Time

# ACCREDITATION CRITERIA

- **CRITERION 1. PROGRAMME EDUCATIONAL OBJECTIVES**
- **CRITERION 2. GRADUATE ATTRIBUTES**
- **CRITERION 3. ACADEMIC CURRICULUM**
- **CRITERION 4. STUDENTS**
- **CRITERION 5. ACADEMIC AND SUPPORTING STAFF**
- **CRITERION 6. FACILITIES**
- **CRITERION 7. QUALITY MANAGEMENT SYSTEMS**