



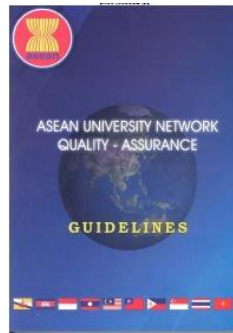
# AUN-QA 4.0

โครงการทบทวนผู้ประเมินฯ ด้วยเกณฑ์ AUN-QA  
มหาวิทยาลัยแม่โจ้

ผ.ศ. ดร.อัทฉัย เอื้ออนันตสันต์

25 เม.ย. 2567

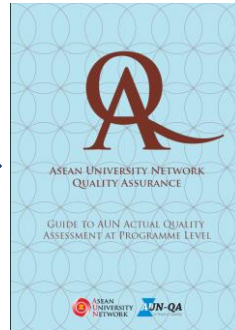
# Changes in AUN-QA at Programme Level



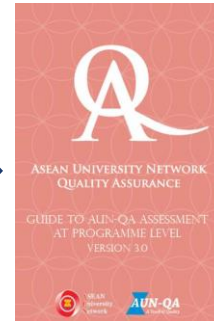
Version 0



Version 1  
2007 – 2010  
18 Criteria

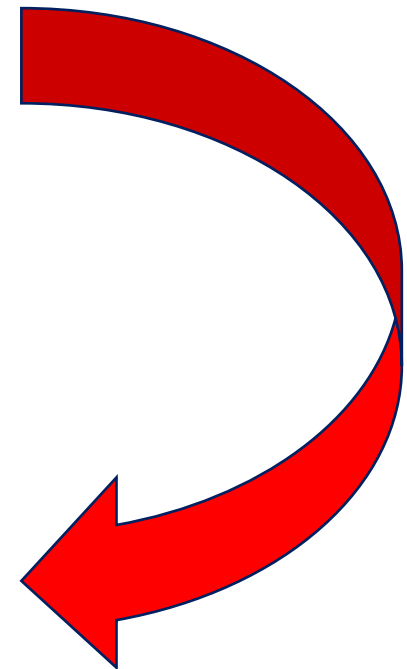


Version 2  
2011 – 2016  
15 Criteria



Version 3  
2016/17 onwards  
11 Criteria

Version 4  
2021 onwards  
8 Criteria

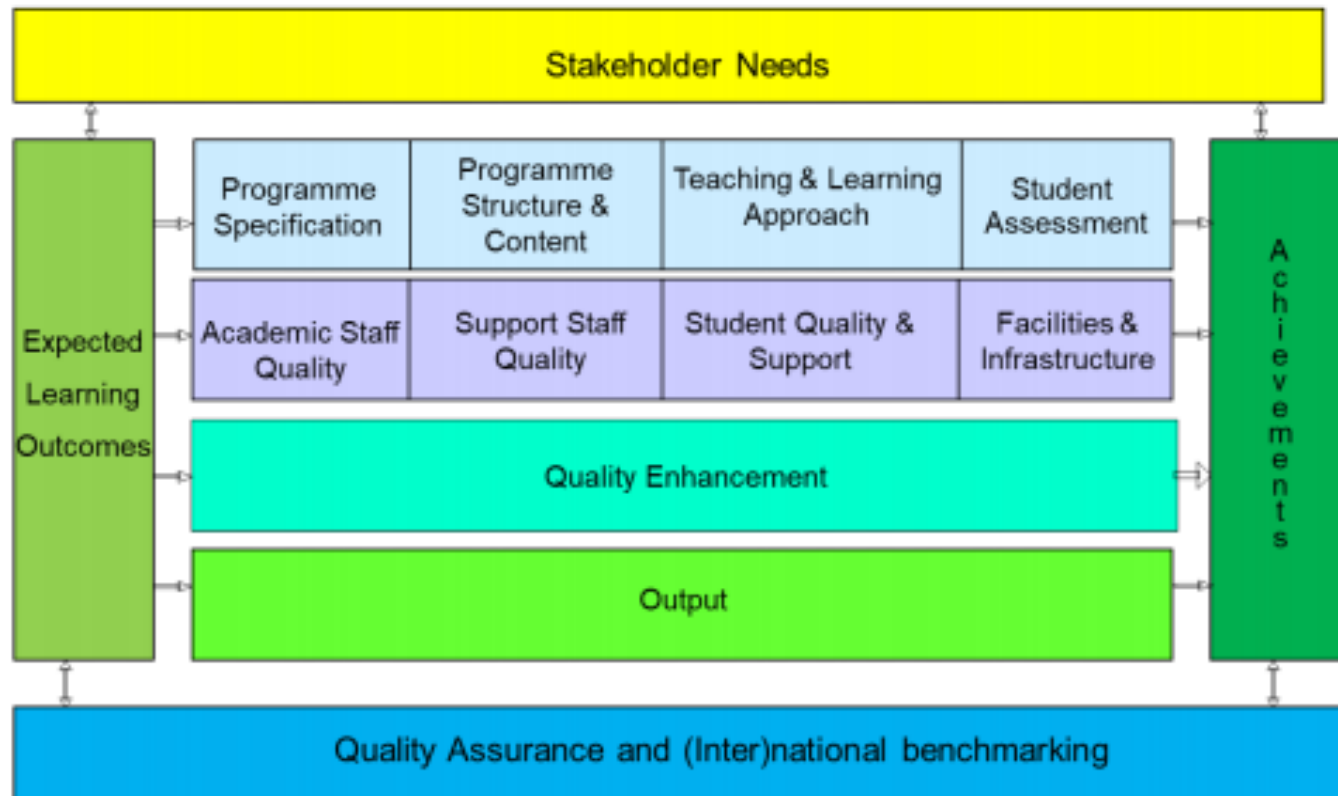


# Changes in AUN-QA at Programme Level

V3.0	V4.0
1.0 Expected Learning Outcomes	1.0 Expected Learning Outcomes
2.0 Programme Specification	2.0 Programme Structure and Content
3.0 Programme Structure and Content	
4.0 Teaching and Learning Approach	3.0 Teaching and Learning Approach
5.0 Student Assessment	4.0 Student Assessment
6.0 Academic Staff Quality	5.0 Academic Staff
7.0 Support Staff Quality	6.0 Student Support Services
8.0 Student Quality and Support	
9.0 Facilities and Infrastructure	7.0 Facilities and Infrastructure
10.0 Quality Enhancement	Integrated into the other criteria
11.0 Output	8.0 Output and Outcomes

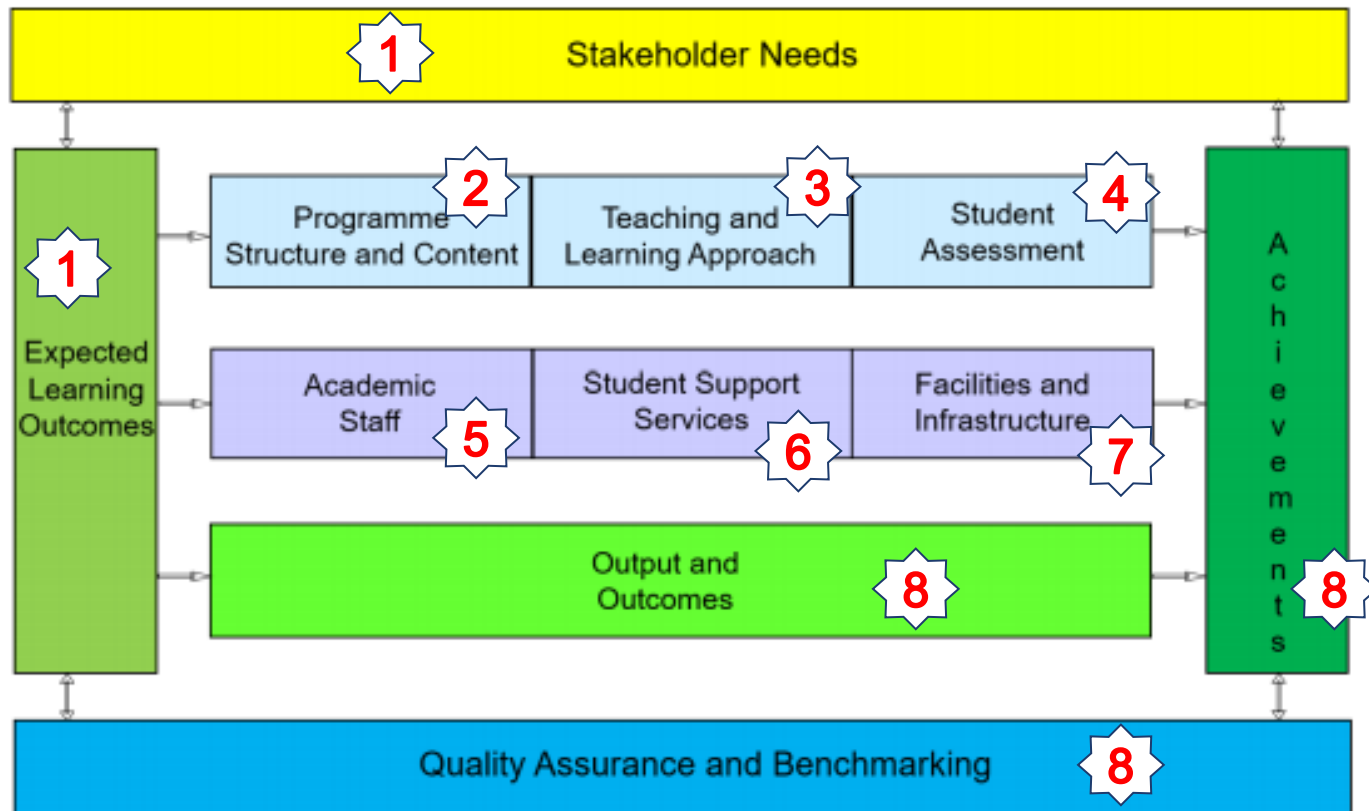
Source: Anuwong, K. (2021)

# Changes in AUN-QA at Programme Level





# Changes in AUN-QA at Programme Level



# Changes in AUN-QA at Programme Level

Programme	Resources	Results
1.0 Expected Learning Outcomes 2.0 Programme Structure and Content 3.0 Teaching and Learning Approach 4.0 Student Assessment	5.0 Academic Staff 6.0 Student Support Services 7.0 Facilities and Infrastructure	8.0 Output and Outcomes

AUN-QA Assessment at Programme Level Version 4.0 Criteria Grouping

# Changes in AUN-QA at Programme Level

## Addendum

- The addendum is prepared to serve as a supplement to the “Guide to AUN-QA Assessment at Programme Level Version 4.0” that provides additional notes and interpretations for assessment of the research component for the postgraduate programmes.
- In addition, it may also be used for assessment of programmes where the research component is dominant or is not given any credit rating or credit hour to represent its learning loads.
- Similar to the requirements for all criteria in the guide, the addendum can also be referred to and read together when writing the self-assessment report of such programmes.

# Changes in AUN-QA at Programme Level

## Addendum

- In general, postgraduate programmes are programmes that require an undergraduate degree or equivalent to be considered for entry which leads to qualifications such as a postgraduate diploma, a master's degree or a doctoral degree. Postgraduate degrees are taken for a number of reasons, such as to move into academia and research, to have certain in-depth specialisation or to change track entirely.

# AUN-QA at Programme Level

Characteristics	Principles-Based	Rules-Based
View of Quality System	Integrated & Systemic	Standalone & Ad-hoc
Focus	Improvement	Compliance
Feedback	Formative	Summative
Improvement Objective	Continuous & Contextualisation	Static & Standardisation
Reference	Framework & Non-Prescriptive	Standards & Prescriptive
Assessors	Skilled Peers	Technical Experts
Assessment Climate	Mutual Respect & Trust	Fearful and Suspicious
Motivation for Assessment	Intrinsic	Extrinsic
Methodology	Assessment or Evaluation	Audit

*Adapted from source: "Principles-based accreditation: the way forward?" by Lindsay H Heywood*

# AUN-QA at Programme Level

- Outcome-based Education

- An educational philosophy organized around several basic beliefs and principles.
- Starting with the belief that all students can learn and succeed
- Organizing from a focus on exit level outcomes and designed downwards to the unit levels.
- It focuses teaching & learning strategies on clearly defined learning outcomes.

# AUN-QA at Programme Level

- Key concepts and Principles of OBE
  - Focus on learning outcomes
  - Backwards curriculum design
  - Create learning opportunities
  - Constructive alignment (assessment – learning activities – learning outcomes)

**“OUT  
COMES  
based EDUCATION**

MAKE  
HAPPEN  
achievement of  
student...

LEARN  
ING

# from learning Development

what we want to “CHANGE”...

beginner



competent  
person

final day

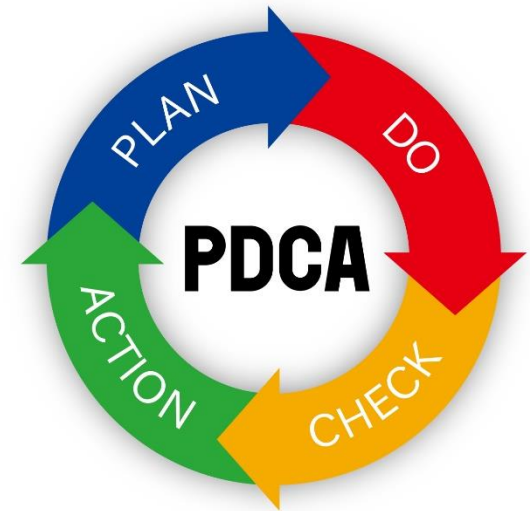


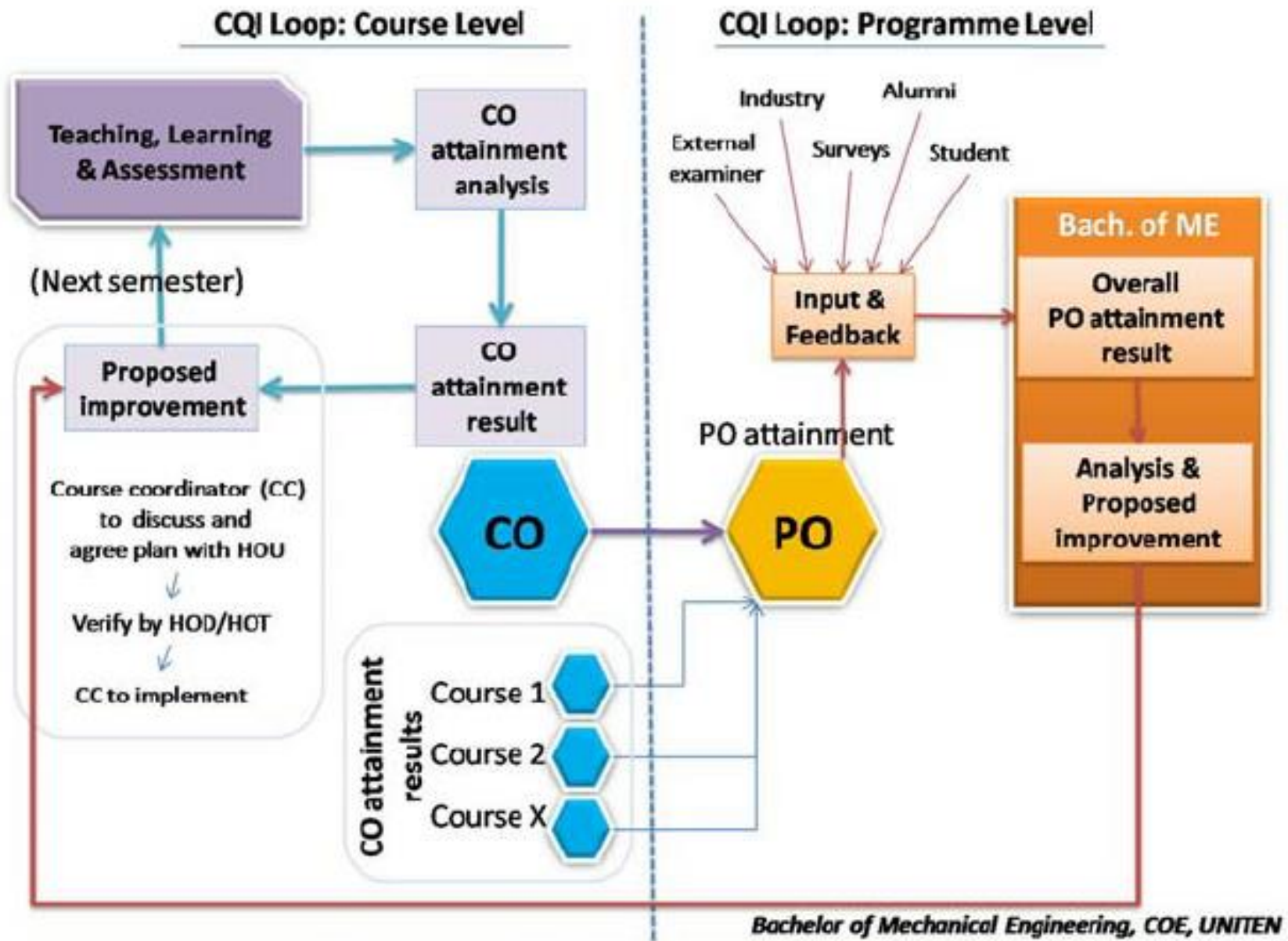
“be the  
**RIGHT  
PERSON**  
competent scholar



# AUN-QA at Programme Level

- PDCA Approach
  - Continual Quality Improvement
  - Good/Best Practices

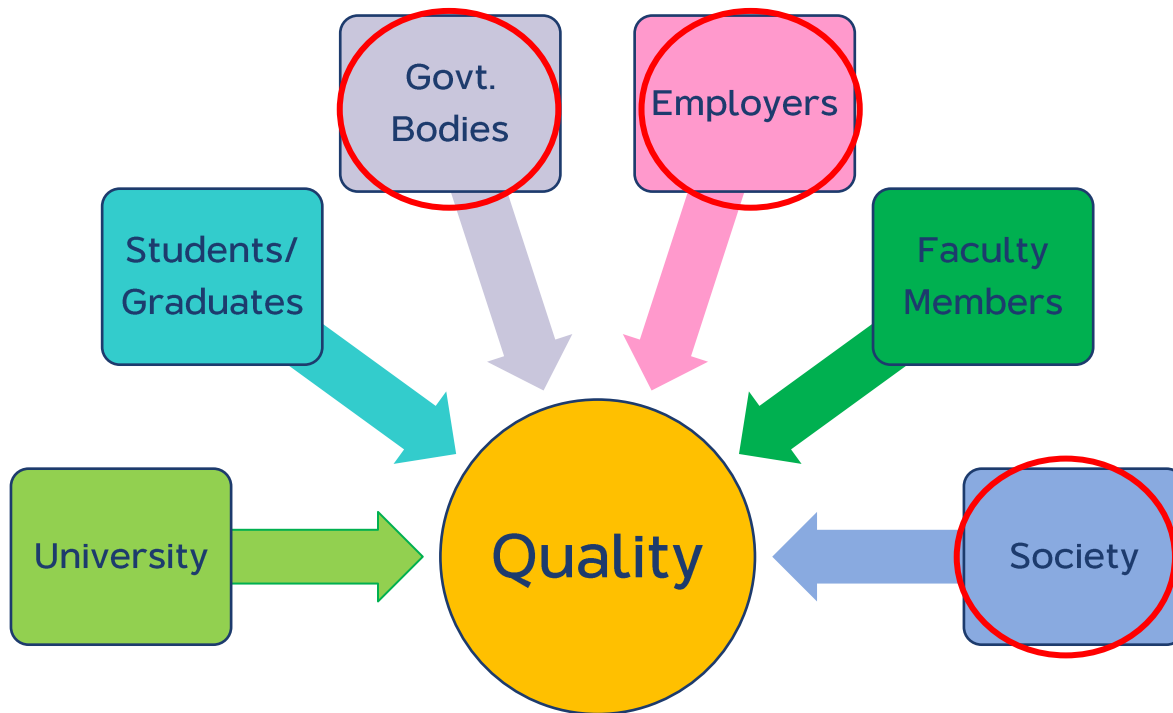




Source: Shuaib, N.H. et al (2009)

# AUN-QA at Programme Level

- Focusing at stakeholder's needs
  - Especially external stakeholders



# AUN-QA at Programme Level

## Rating Scale

Rating	Description
1	<b>Absolutely Inadequate</b> The QA practice to fulfil the criterion is not implemented. There are no plans, documents, evidences or results available. Immediate improvement must be made.
2	<b>Inadequate and Improvement is Necessary</b> The QA practice to fulfil the criterion is still at its planning stage or is inadequate where improvement is necessary. There is little document or evidence available. Performance of the QA practice shows little or poor results.

# AUN-QA at Programme Level

## Rating Scale

Rating	Description
3	<b>Inadequate but Minor Improvement Will Make It Adequate</b> The QA practice to fulfil the criterion is defined and implemented but minor improvement is needed to fully meet them. Documents are available but no clear evidence to support that they have been fully used. Performance of the QA practice shows inconsistent or some results.
4	<b>Adequate as Expected</b> The QA practice to fulfil the criterion is adequate and evidences support that it has been fully implemented. Performance of the QA practice shows consistent results as expected.

# AUN-QA at Programme Level

## Rating Scale

Rating	Description
5	<b>Better Than Adequate</b> The QA practice to fulfil the criterion is better than adequate. Evidences support that it has been efficiently implemented. Performance of the QA practice shows good results and positive improvement trend.
6	<b>Example of Best Practices</b> The QA practice to fulfil the criterion is considered to be example of best practices in the field. Evidences support that it has been effectively implemented. Performance of QA practice shows very good results and positive improvement trend.

# AUN-QA at Programme Level

## Rating Scale

Rating	Description
<b>7</b>	<b>Excellent (Example of World-class or Leading Practices)</b> The QA practice to fulfil the criterion is considered to be excellent or example of world-class practices in the field. Evidences support that it has been innovatively implemented. Performance of the QA practice shows excellent results and outstanding improvement trends.

# AUN-QA at Programme Level 4.0

Criterion	Requirements
1. Expected Learning Outcomes	5
2. Programme Structure and Content	7
3. Teaching and Learning Approach	6
4. Student Assessment	7
5. Academic Staff	8
6. Student Support Services	6
7. Facilities and Infrastructure	9
8. Output and Outcomes	5
<b>Total</b>	<b>53</b>

Requirements = Sub-criteria + Checklist items



# AUN-QA at Programme Level 4.0

## Criterion 1 - Expected Learning Outcomes

### Requirements

- 1.1 The programme to show that the expected learning outcomes<sup>a</sup> are appropriately formulated in accordance with an established learning taxonomy, are aligned to the vision and mission of the university, and are known to all stakeholders.
- 1.2 The programme to show that the expected learning outcomes for all courses are appropriately formulated and are aligned to the expected learning outcomes of the programme.
- 1.3 The programme to show that the expected learning outcomes<sup>a</sup> consist of both generic outcomes (related to written and oral communication, problem-solving, information technology, teambuilding skills, etc.) and subject specific outcomes (related to knowledge and skills of the study discipline).
- 1.4 The programme to show that the requirements of the stakeholders, especially the external stakeholders, are gathered, and that these are reflected in the expected learning outcomes.
- 1.5 The programme to show that the expected learning outcomes are achieved by the students by the time they graduate<sup>b</sup>.

# AUN-QA at Programme Level 4.0

## Criterion 1 - Expected Learning Outcomes

### Addendum

- a Formulation of the “expected learning outcomes” shall consider the national, regional and global points of reference of a postgraduate programme. As such, elements related to original research, novelty, emerging theories and practice in solving real-world problems, etc., in the graduate profile should be assessed and benchmarked.
- b The phrase “achieved by the students by the time they graduate” may include student’s contribution after graduation in applying their doctorate-level and other employability skills, that may be triangulated with the referred qualification descriptors and/or the requirements of stakeholders for the degree.

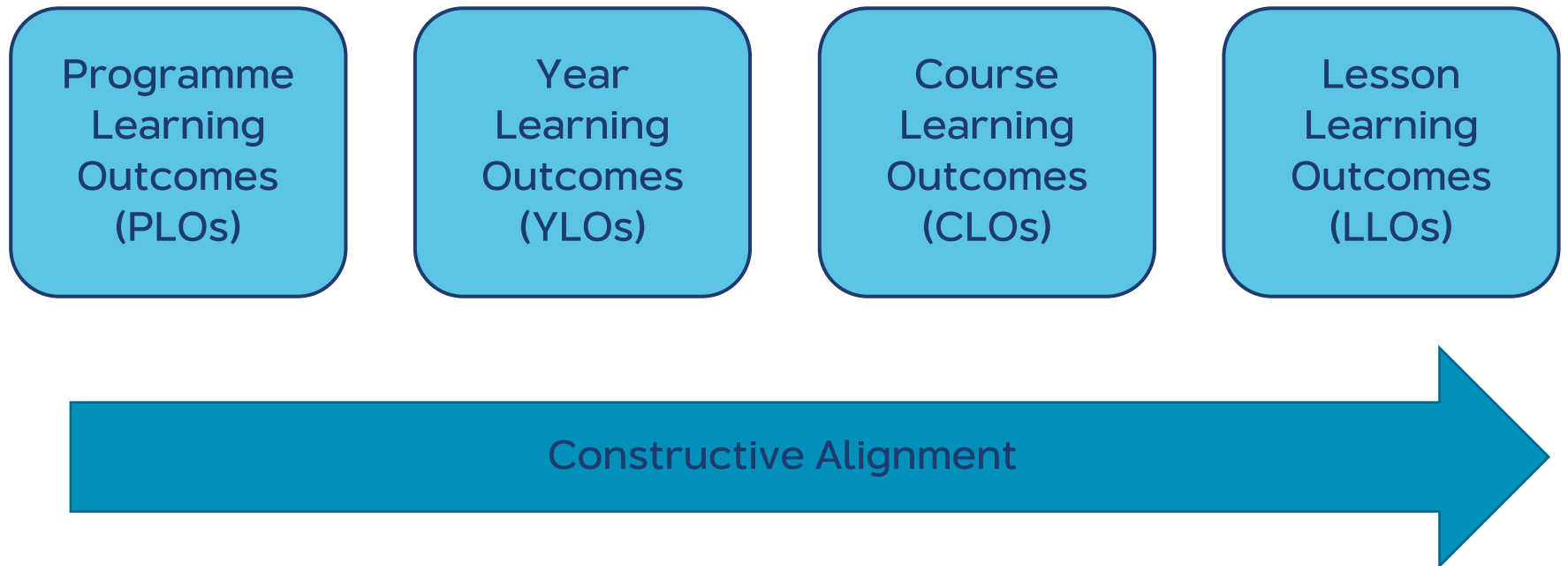
# AUN-QA at Programme Level 4.0

## Criterion 1 - Expected Learning Outcomes

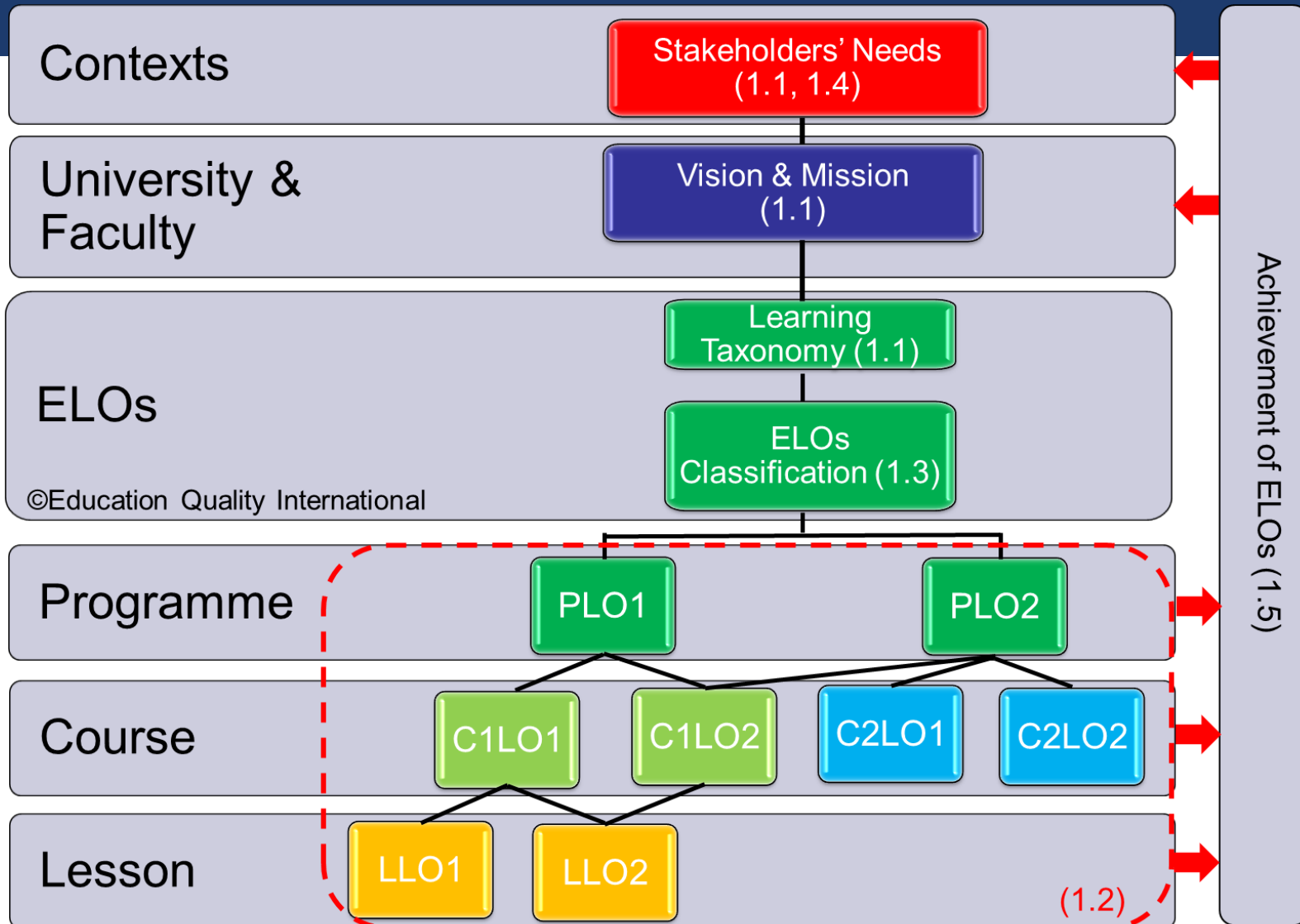
### Addendum

- a Formulation of the “expected learning outcomes” shall consider the national, regional and global points of reference of a postgraduate programme. As such, elements related to original research, novelty, emerging theories and practice in solving real-world problems, etc., in the graduate profile should be assessed and benchmarked.
- b The phrase “achieved by the students by the time they graduate” may include student’s contribution after graduation in applying their doctorate-level and other employability skills, that may be triangulated with the referred qualification descriptors and/or the requirements of stakeholders for the degree.

# AUN-QA at Programme Level 4.0



# Expected Learning Outcomes (Systematic Views)



# Categories of Learning Outcomes

- **Specific outcomes:**
  - The outcomes that relate to the subject discipline and the knowledge, skills and/or competencies particular to the discipline.
- **Generic outcomes (transferable skills):**
  - The outcomes that relate to any and all disciplines e.g. written, presentation, problem-solving, information technology and team working skills, etc.

# Syntax of ELO Statement

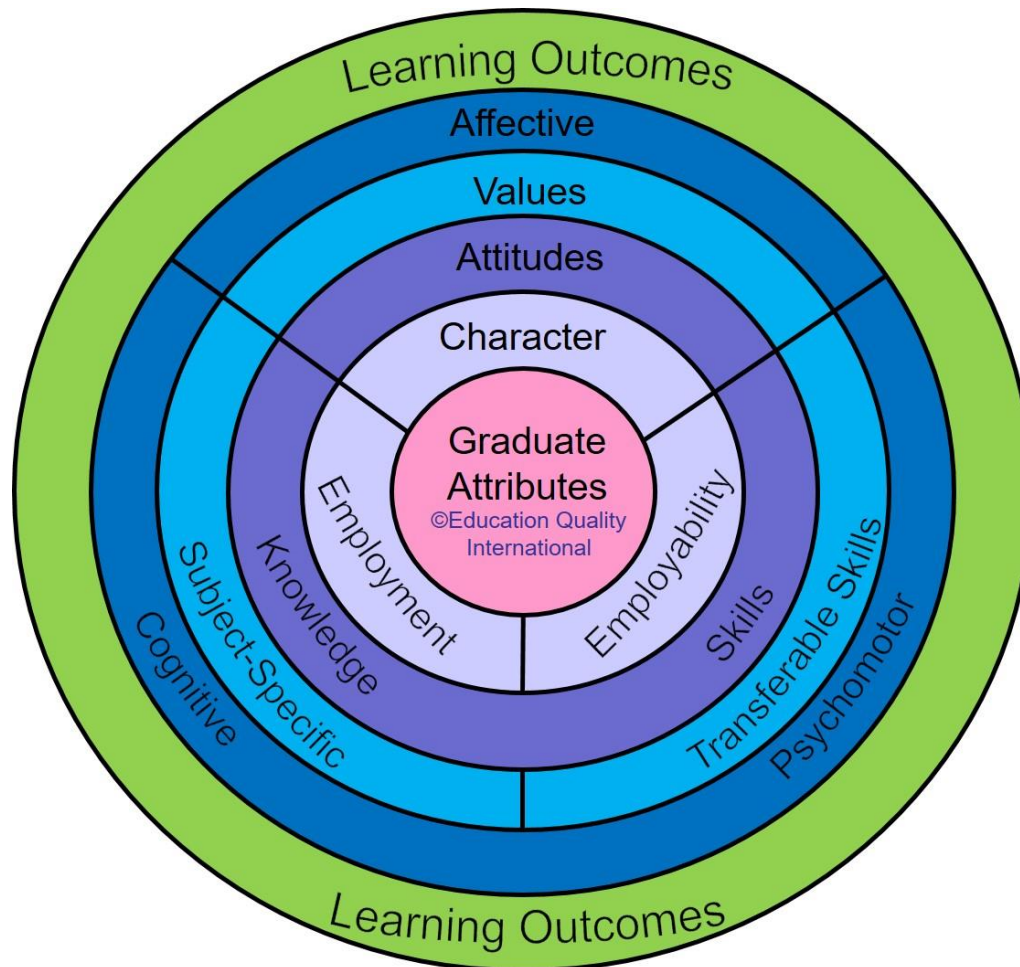
**Upon completion of the programme, the student will be able to:**

- Action verb (Bloom's Taxonomy) + Objects + Modification (T&L / Assessment)

## Example

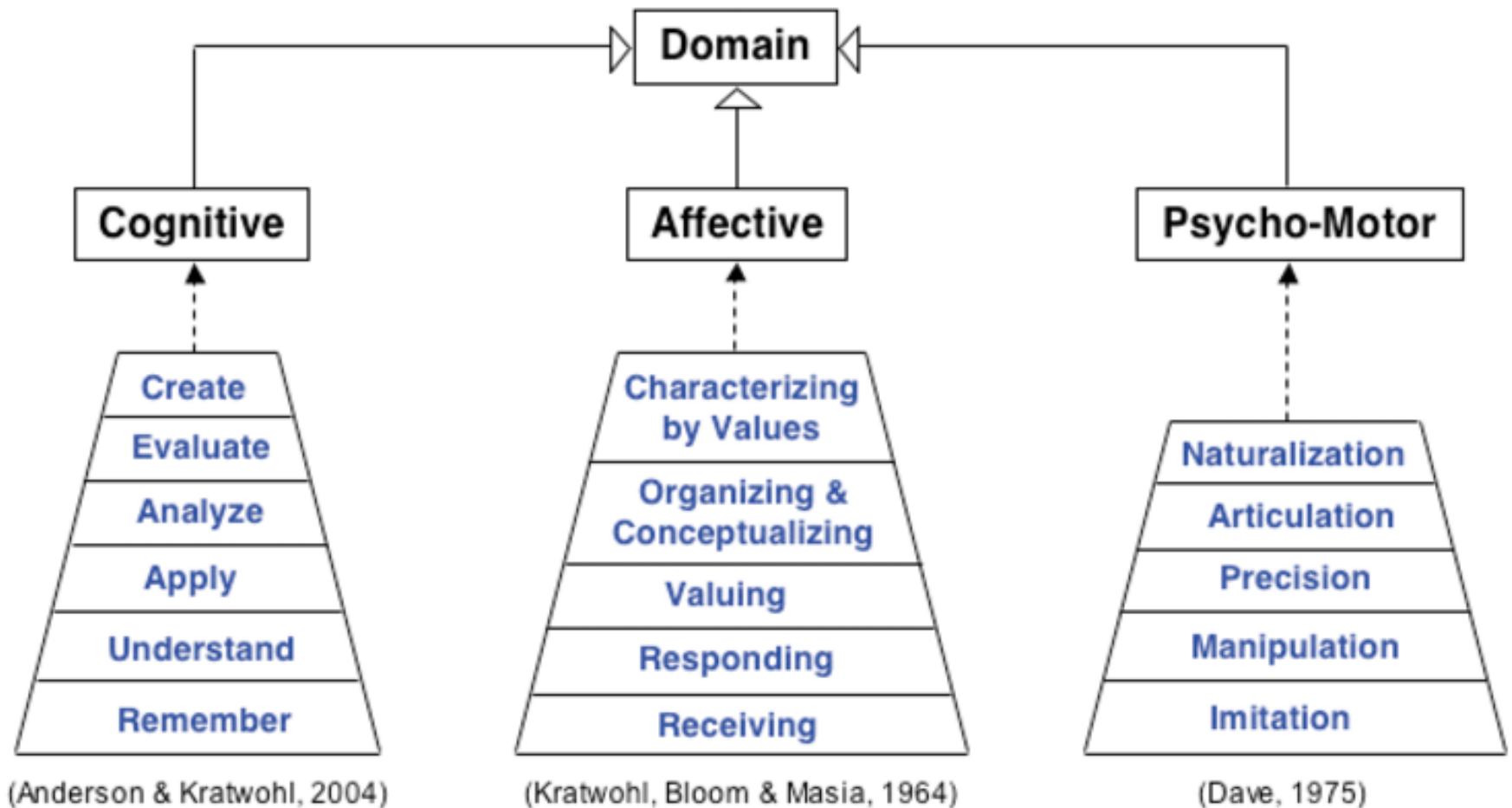
- Apply + Modern Biology + especially related to molecular biology and nano-biology
- Relate + Applied Statistics + concept to analyse the real-world data

# AUN-QA at Programme Level 4.0





# AUN-QA at Programme Level 4.0



# Bloom's Taxonomy (Cognitive Domain)

6 Cognitive Levels	
Levels	Action Verbs
<b>Creation</b> Put elements together to form a coherent or functional whole; reorganise elements into a new pattern or structure	Generating, Planning, Producing, Creating, Designing, Composing
<b>Evaluation</b> Make judgments based on criteria and standards	Checking, Critiquing
<b>Analysis</b> Break material into its constituent parts and determine how the parts relate to one another and to an overall structure or purpose	Differentiating, Organizing, Attributing
<b>Applying</b> Carry out or use a procedure in a given situation	Executing, Implementing
<b>Understanding</b> Construct meaning from instructional messages, including oral, written, and graphic communication	Interpreting, Exemplifying, Classifying, Summarizing, Inferring, Comparing, Explaining
<b>Remembering</b> Retrieve relevant knowledge from long-term memory	Recognizing Recalling

# Bloom's Taxonomy (Affective Domain)

5 Affective Levels	
Levels	Action Verbs
<b>Characterization</b> All behavior displayed is consistent with one's value system. Values are integrated into a pervasive philosophy that never allows expressions that are out of character with those values.	Displaying, Exhibiting, Avoiding
<b>Organization</b> Commitment to a set of values.	Balancing, Selecting, Comparing
<b>Valuing</b> Display behavior consistent with a single belief or attitude in situations where one is neither forced or asked to comply.	Acting, Arguing, Convincing, Debating
<b>Responding</b> One is required to comply with given expectations by attending or reacting to certain stimuli.	Applauding, Following, Participating, Complying
<b>Receiving</b> One is expect to be aware of or to passively attend to certain stimuli or phenomena. Simply listening and being attentive are the expectations.	Attending, Listening, Being aware

# Bloom's Taxonomy (Psychomotor Domain)

5 Psychomotor Levels	
Levels	Action Verbs
<b>Naturalization</b> High level of proficiency is necessary. The behavior is performed with the least expenditure of energy, becomes routine, automatic, and spontaneous.	Automating, Naturalizing
<b>Articulation</b> Requires the display of coordination of a series of related acts by establishing the appropriate sequence and performing the acts accurately, with control as well as with speed and timing.	Coordinating, Integrating, Timing
<b>Precision</b> Requires performance of some action independent of either written instructions or a visual model.	Controlling
<b>Manipulation</b> Performance of an action with written or verbal directions but without a visual model or direct observation.	Repeating, Aligning
<b>Imitation</b> The learner observes and then imitates an action.	Following

# Achievement of PLOs

- It is important that the data for the table are provided by the students.
- This gives a more reliable measure of PLO achievement. It makes less sense for the data to be provided by the programme administrators or the academic staff since these stakeholders would have a vested interest in seeing good achievement of the learning outcomes.
- Alternatively, the data can be provided by alumni and employers within 6-24 months after graduation.

	Achievement of LO			
Programme Learning Outcome	25%	50%	75%	100%
PLO1		X	X	
PLO2				X
PLO3	X	X	X	
PLO4			X	
PLO5		X	X	X
...				
...				

Example: Achievements of learning outcomes

# Course Design

Course Title					Course Code	
Pre-requisites:					Credit Units:	
Course Description						
Course Learning Outcomes		CLOs		PLO1	PLO2	PLO3
		CLO1		Vertical Alignment		
		CLO2				
		LLOs		CLO1	CLO2	CLO3
		LLO1				
		LLO2				
Week	Unit 1:					
1	CLO	LLOs	Topics	Assessments	Learning Activities	Resources
	Horizontal Alignment					

# Measuring ELOs

Course Assessment Plan					
Assessment Component	CLO1	CLO2	CLO3	CLO4	CLO5
Class Participation					Participation (Rubric)
Class Test (Individual)	MCQ 1 -10	Essay Q1 -2	Essay Q3		
Group Project				Research Rubric	Research Rubric
Final Examination	Written Test Q 1 – 2	Written Test Q 3 - 5	Written Test Q 6 - 8	Written Test Q 9 - 10	



Assessment Component	CLO1	CLO2	CLO3	CLO4	CLO5
Class Participation (10%)					80%
Class Test (Individual) (20%)	60%	50%	70%		
Group Project (20%)				50%	80%
Final Examination (50%)	80%	70%	70%	60%	
Overall (Wt. Avg)	70%	65%	70%	58%	80%



Course (C)	Programme Learning Outcomes (PLOs)						
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7
CLO1		70%		70%			70%
CLO2			65%			65%	
CLO3	70%				70%		
CLO4			58%	58%			58%
CLO5	80%	80%			80%		
Average	75%	75%	62%	64%	75%	65%	64%



Course (C)	Programme Learning Outcomes (POs)						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CLO1		✓		✓			✓
CLO2			✓			✓	
CLO3	✓				✓		
CLO4			✓	✓			✓
CLO5	✓	✓			✓		



# Measuring ELOs (Subjective)

Table 9: ECE 4899 Average Scores for ABET Outcomes

Subjective Measures		2007-2008		2008-2009		2009-2010		2010-2011		Av Score
Outcome	Source	N	Score	N	Score	N	Score	N	Score	
(b) an ability to design and conduct experiments as well as to analyze and interpret data	Questions 6 & 12 on ECE 4899 Exit Questionnaire (student & faculty data)	6	90.3%	11	86.4%	12	90.1%	9	78.3%	86.3%
(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	Questions 5 & 14 on ECE 4899 Exit Questionnaire (student & faculty)	6	95.8%	11	87.1%	12	88.1%	9	85.0%	89.0%
(d) an ability to function on multi-disciplinary teams	Question 8 on ECE 4899 Exit Questionnaire (student & faculty)	6	97.2%	11	87.9%	12	86.0%	9	88.8%	89.9%
(g) an ability to communicate effectively	Questions 1,2,& 3 on ECE 4899 Exit Questionnaire (student & faculty)	6	91.7%	11	84.9%	12	87.0%	9	82.8%	86.6%

Source: ABET Self-Study Report for the Bachelor of Science in Computer Engineering at University of Colorado

# Measuring ELOs (Subjective)

## LEARNING OUTCOMES

The following learning outcomes for the workshop have been achieved.

		Strongly Disagree						Strongly Agree	
1.	<u>Describe</u> the characteristics of Education 4.0	1	2	3	4	5	6	7	
2.	<u>Apply</u> OBE approach in designing study programme	1	2	3	4	5	6	7	
3.	<u>Select</u> appropriate strategies to engage stakeholders in curriculum design	1	2	3	4	5	6	7	
4.	<u>Design</u> integrated curriculum to promote collaborative research	1	2	3	4	5	6	7	
5.	<u>Apply</u> the principle of constructive alignment to align stakeholders' needs, curriculum, learning outcomes, teaching and learning, and student assessment	1	2	3		5	6	7	
6.	<u>Apply</u> revised Bloom's Taxonomy in writing learning outcomes	1	2	3	4	5	6	7	
7.	<u>Select</u> appropriate instructional and assessment methods to achieve learning outcomes	1	2	3	4	5	6	7	
8.	<u>Design</u> student assessment rubrics and marking schemes to achieve learning outcomes	1	2	3	4	5	6	7	
9.	<u>Evaluate</u> the OBE curriculum for quality enhancement	1	2	3	4	5	6	7	
10.	<u>Apply</u> change management in implementing OBE	1	2	3	4	5	6	7	

Subjective Measures

# AUN-QA at Programme Level 4.0

## Criterion 2 - Programme Structure and Content

### Requirements

- 2.1 The specifications of the programme and all its courses<sup>c</sup> are shown to be comprehensive, up-to-date, and made available and communicated to all stakeholders.
- 2.2 The design of the curriculum is shown to be constructively aligned<sup>d</sup> with achieving the expected learning outcomes.
- 2.3 The design of the curriculum is shown to include feedback from stakeholders, especially external stakeholders.
- 2.4 The contribution made by each course<sup>c</sup> in achieving the expected learning outcomes is shown to be clear.
- 2.5 The curriculum to show that all its courses<sup>c</sup> are logically structured, properly sequenced (progression from basic to intermediate to specialised courses), and are integrated.
- 2.6 The curriculum to have option(s) for students to pursue major and/or minor specialisations.
- 2.7 The programme to show that its curriculum is reviewed periodically following an established procedure and that it remains up-to-date and relevant to industry.

# AUN-QA at Programme Level 4.0

## Criterion 2 - Programme Structure and Content

### Addendum

- c In the context of planning and delivering the programme research component that is aligned to the expected learning outcomes, the term “course” or “courses” should be referred to programme activities or/and assessment tasks related to monitoring progression and reviewing academic performance of a postgraduate student.
- d Consequently, the term “constructive alignment” for the programme research component could be shown or demonstrated by mapping between the expected learning outcomes of the programme with activities or/and assessment tasks related to progress and performance reviews of a doctorate candidate/student.

# AUN-QA at Programme Level 4.0

The information in the programme specifications include the below:

- Awarding body/institution
- Teaching institution (if different)
- Details of accreditation by professional or statutory bodies
- Name of the final award
- Programme title
- Expected learning outcomes of the programme
- Admission criteria or requirements
- Relevant benchmark reports, external and internal reference points, that may be used
- to provide information on programme learning outcomes
- Programme structure and requirements including levels, courses, credits etc
- The date of writing the programme specifications.

P.20

# AUN-QA at Programme Level 4.0

The information to be included in the courses specifications include the below:

- Course title
- Course requirements such as pre-requisites, credits, etc
- Expected learning outcomes of the course in terms of knowledge, skills, and attitude
- Teaching, learning, and assessment methods that enable the expected learning outcomes to be achieved
- Course description, outline, or syllabus
- Details of student assessment
- Date on which the course specification was written or revised.

P.20

# Curriculum Diagram

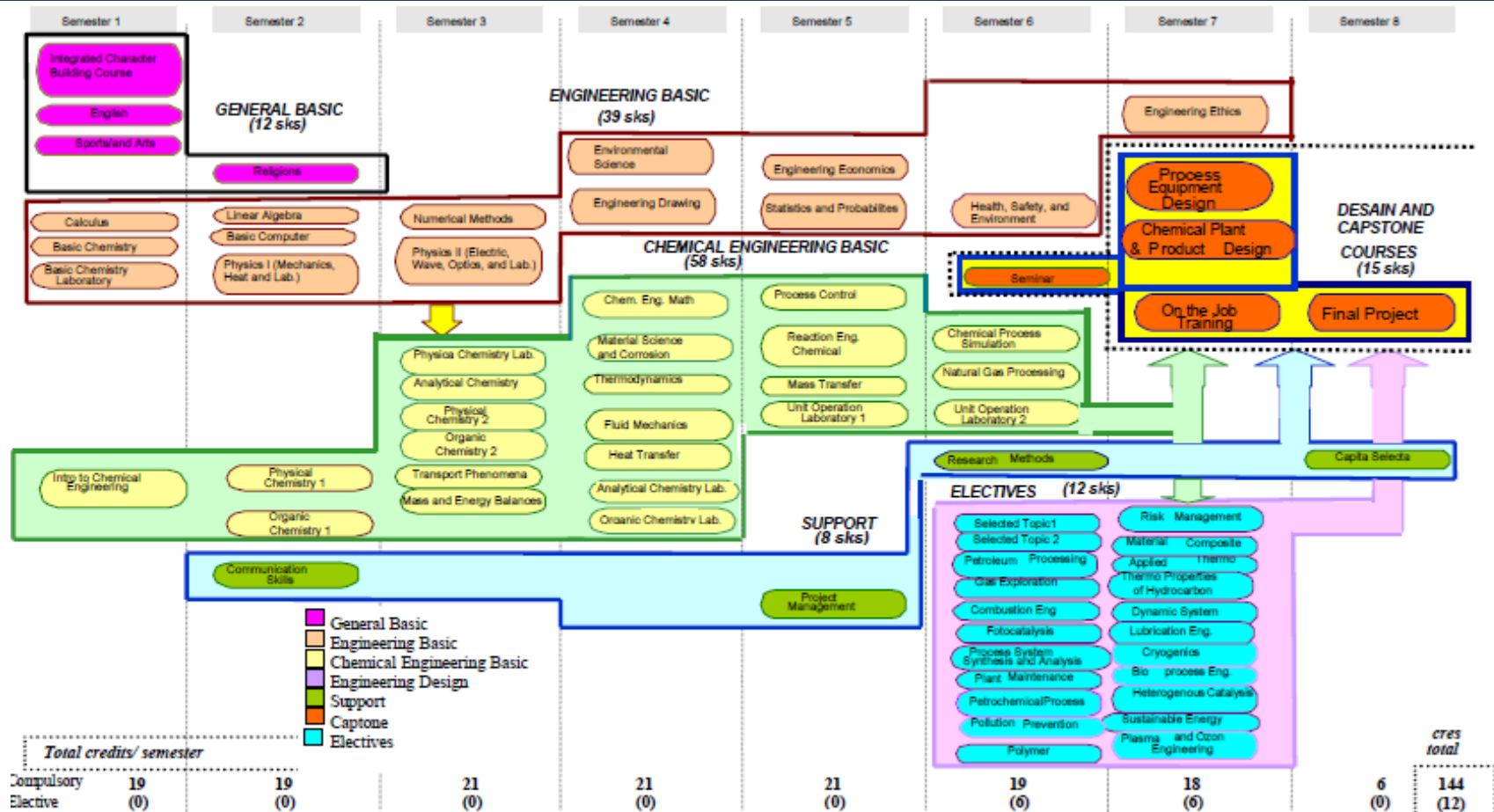


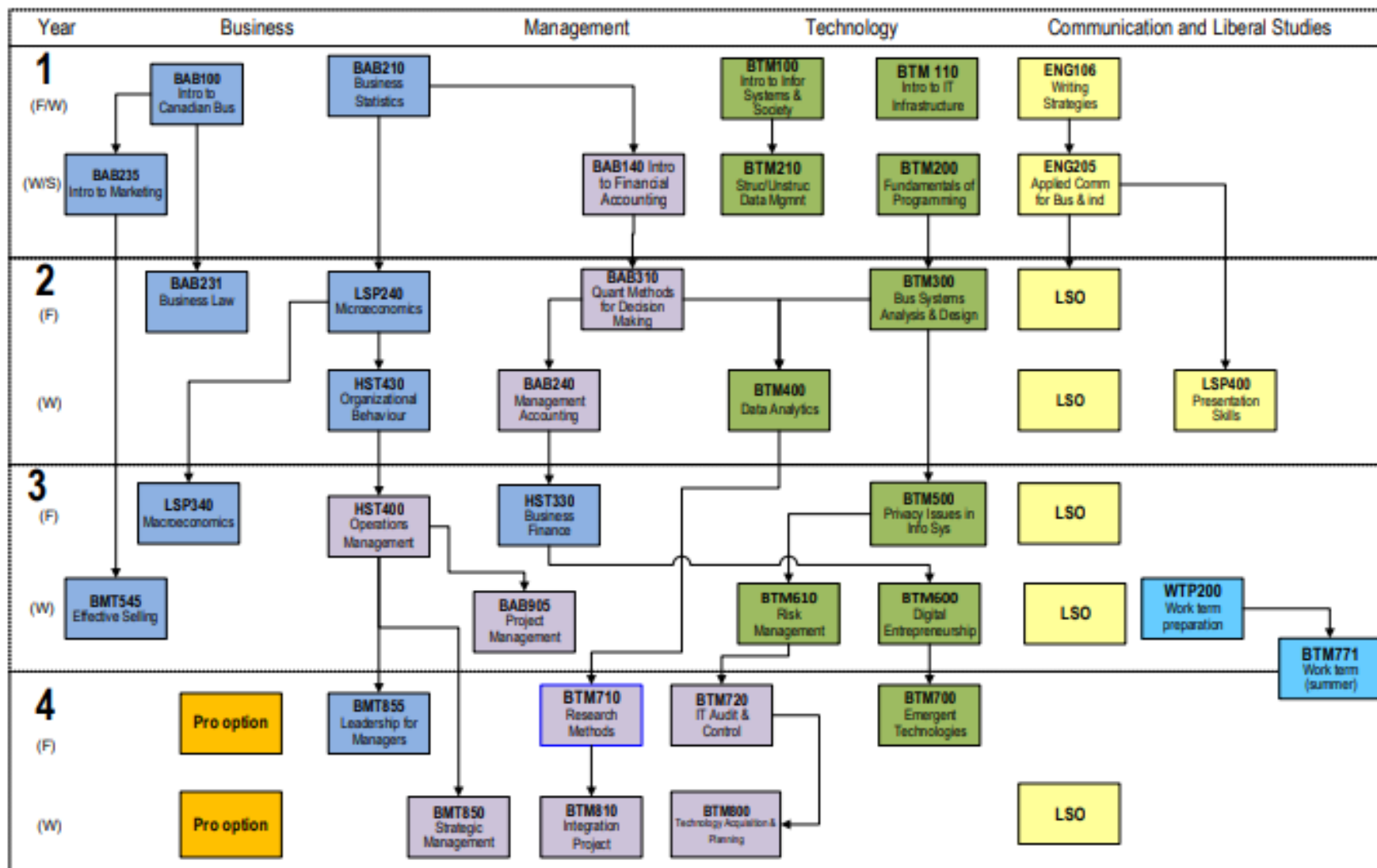
Figure 2.2 Curriculum Structure of ChESP

Source: Chemical Engineering, Universitas Indonesia

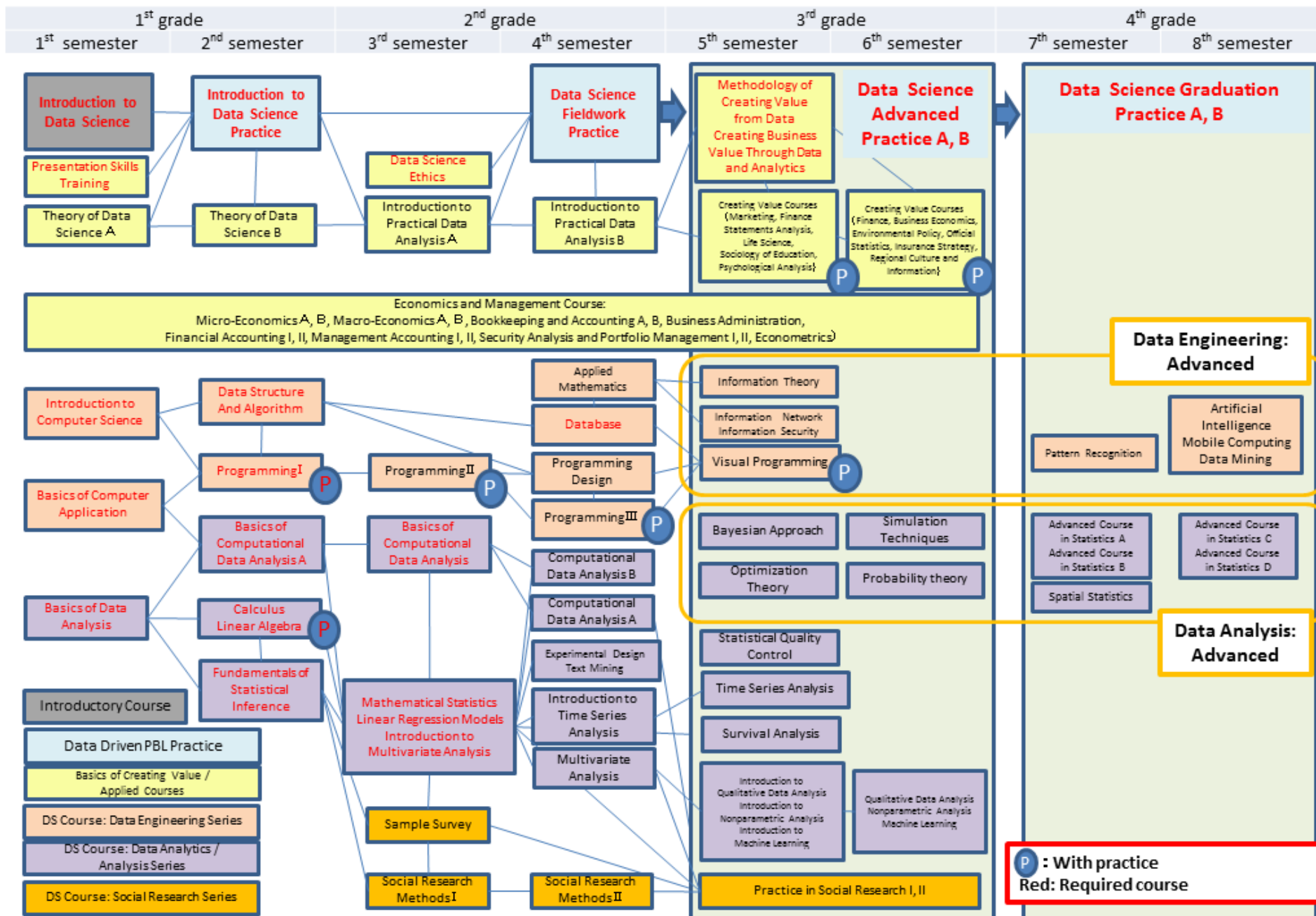


# Business Technology Management (BTM) Curriculum

Program Entry Date: September 2020 or later | Effective Date September 2021







## Curriculum Map

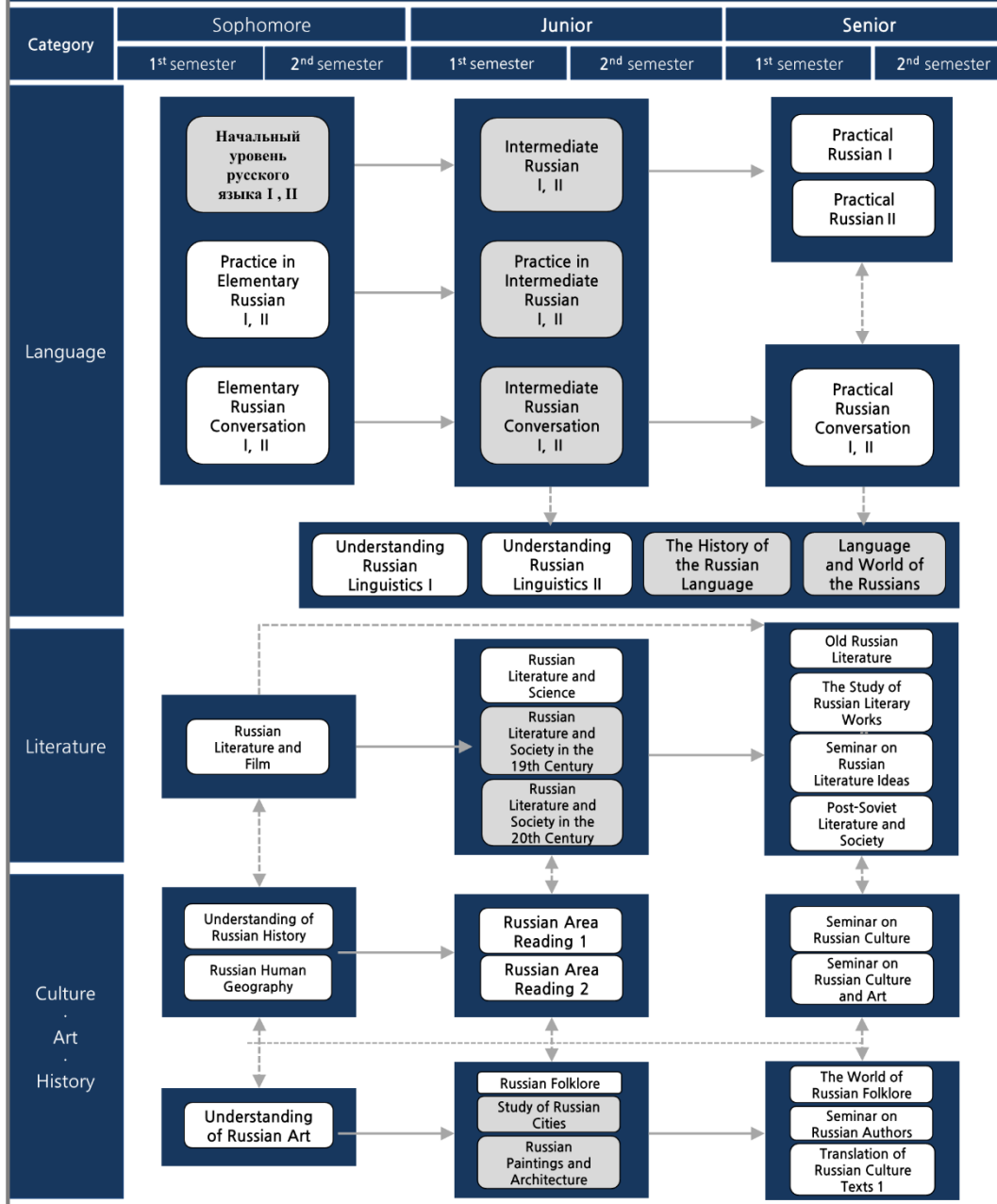
[illegible]

Source: Bachelor of Science/Master in Applied Mathematics with Specialization in Mathematical Finance Ateneo de Manila University

# Department of Russian Language and Literature

Core  
Major

General  
Major



# Course Design

Course Title					Course Code	
Pre-requisites:					Credit Units:	
Course Description						
Course Learning Outcomes		CLOs		PLO1	PLO2	PLO3
		CLO1		Vertical Alignment		
		CLO2				
		LLOs		CLO1	CLO2	CLO3
		LLO1				
		LLO2				
Week	Unit 1:					
1	CLO	LLOs	Topics	Assessments	Learning Activities	Resources
	Horizontal Alignment					

# ELO and Course Alignments

Course Number	Course Name	Credit			Programme Learning Outcomes																	
		Lect	Lab	Clin	1.1	1.2	2.1	2.2	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5	5.1	5.2	6	7	8	9
General Education Courses																						
xxxxxx	Social Sciences Course	3			●		●		●		●		●	●		●	●	●	●			
xxxxxx	Humanities Course	3			●		●		●		●		●	●		●	●	●		●		
xxxxxx	Mathematics and Sciences Course	3			●		●		●		●		●	●		●	●	●			●	
xxxxxx	Interdisciplinary Course	3			●		●		●		●		●	●		●	●	●				●
Total Credits		12																				
Free Electives																						
xxxxxx	Any Course (in total of)	6			Depend on the course																	
Total Credits		6																				
Foreign Language Courses																						
5500111	Experiential English 1	2	1		●		●		●		●		●	●		●	●	●	●			
5500112	Experiential English 2	2	1		●		●		●		●		●	●		●	●	●		●		
5500212	English for Dental Professions 1	2	1		●		●		●		●		●	●		●	●	●			●	
5500213	English for Dental Professions 2	2	1		●		●		●		●		●	●		●	●	●				●
Total of Each Type		8	4																			
Total Credits		12																				
Special General Education Courses																						
3200102	Bioethics		1		●		●		●	○	○		●				●	●	○	○	○	○
3200103	Computer Application in Profession		1		●		●		●	○	○		●	●		○	●	●				
3200108	Biostatistics	2			○	○	○		●	○	○			●	●		○	○				
3200601	Health Organization Administration	2			●		●		●	○	○		○			●	○	○				
Total of Each Type		4	2																			
Total Credits		6																				

Source: Doctor of Dental Surgery Programme, Chulalongkorn University

# AUN-QA at Programme Level 4.0

## Criterion 3 - Teaching and Learning Approach

### Requirements

- 3.1 The educational philosophy is shown to be articulated and communicated to all stakeholders. It is also shown to be reflected in the teaching and learning activities<sup>e</sup>.
- 3.2 The teaching and learning activities<sup>e</sup> are shown to allow students to participate responsibly in the learning process.
- 3.3 The teaching and learning activities<sup>e</sup> are shown to involve active learning by the students.
- 3.4 The teaching and learning activities<sup>e</sup> are shown to promote learning, learning how to learn, and instilling in students a commitment for life-long learning (e.g., commitment to critical inquiry, information-processing skills, and a willingness to experiment with new ideas and practices).
- 3.5 The teaching and learning activities<sup>e</sup> are shown to inculcate in students, new ideas, creative thought, innovation, and an entrepreneurial mindset.
- 3.6 The teaching and learning processes are shown to be continuously improved to ensure their relevance to the needs of industry and are aligned to the expected learning outcomes.

# AUN-QA at Programme Level 4.0

## **Criterion 3 - Teaching and Learning Approach**

### **Addendum**

- e The term “teaching and learning activities” for the programme research component may include discussion and consultation with the supervisors as well as programme activities and assessment tasks that are related to progress monitoring and performance reviews of a postgraduate student.

# Responsible Participation

In promoting responsibility in learning, lecturers should:

- Create a teaching-learning environment that enables individuals to participate responsibly in the learning process.
- Provide curricula that are flexible and enable learners to make meaningful choices in terms of subject content, programme routes, approaches to assessment, and modes and duration of study.



# Responsible Participation

Course Title					Course Code		
Pre-requisites:					Credit Units:		
Course Description							
Course Learning Outcomes		CLOs		PLO1	PLO2	PLO3	
		CLO1		Vertical Alignment			
		CLO2					
		LLOs			CLO1	CLO2	CLO3
		LLO1					
		LLO2					
Week	Unit 1:						
1	CLO	LLOs	Topics	Assessments	Learning Activities	Resources	
	Horizontal Alignment						

# Education Philosophy – PSU

- ปรัชญาการศึกษา
- สำนักการศึกษาและนวัตกรรมการเรียนรู้
- <https://eila.psu.ac.th/curriculum/edudata/>

## ข้อมูลการศึกษา

- ▶ ปรัชญาการจัดการศึกษา
- ▶ อัตลักษณ์มหาวิทยาลัยสงขลานครินทร์
- ▶ ระบบและกลไกการจัดการเรียนการสอน
- ▶ กระบวนการจัดการเรียนการสอน (Flow Chart)

# Education Philosophy – PSU

มหาวิทยาลัยสงขลานครินทร์ ก่อตั้งขึ้นตามนโยบายการพัฒนาภาคใต้ โดยมีเจตนารมณ์ตั้งแต่แรกเริ่มที่จะให้เป็นมหาวิทยาลัยหลักของภาคใต้ ทำหน้าที่ผลิตบัณฑิต วิจัย บริการวิชาการและทำนุบำรุงศิลปวัฒนธรรม การจัดการศึกษาของมหาวิทยาลัยจึงมุ่งเน้นที่การพัฒนาคนเพื่อให้เป็นกำลังหลักของสังคม และยึดตามแนวทางการจัดการศึกษาของชาติที่มุ่งเน้นผู้เรียนเป็นศูนย์กลาง

ปรัชญาการศึกษาของมหาวิทยาลัยสงขลานครินทร์ จึงเป็นการจัดการศึกษาตามแนวทางพัฒนาการนิยม (Progressivism) คือการพัฒนาผู้เรียนในทุกด้าน เพื่อให้พร้อมที่จะอยู่ในสังคมได้อย่างมีความสุข และปรับตัวได้ดีตามสถานการณ์ที่เปลี่ยนแปลง โดยใช้กระบวนการจัดการเรียนรู้เป็นเครื่องมือในการพัฒนาผู้เรียนโดยให้ผู้เรียนเป็นศูนย์กลางของการเรียนรู้ และพัฒนาจากความต้องการของผู้เรียน ผ่านกระบวนการแก้ปัญหาและค้นคว้าด้วยตนเอง กระบวนการที่ต้องลงมือปฏิบัติทั้งในและนอกห้องเรียน ซึ่งจะนำไปสู่การเรียนรู้ที่ยั่งยืน และจากแนวคิดที่ว่า การพัฒนา คือการเปลี่ยนแปลง การเรียนรู้จึงไม่ได้หยุดอยู่เพียงภายในมหาวิทยาลัยแต่จะดำเนินไปตลอดชีวิต การจัดการศึกษาของมหาวิทยาลัยจึงมุ่งเน้นการเรียนรู้ตลอดชีวิตด้วย

จากหลักการดังกล่าวข้างต้นนำไปสู่การจัดการศึกษาที่มุ่งเน้นผลลัพธ์ (Outcome Based Education) โดยการพัฒนาหลักสูตร กระบวนการจัดการเรียนรู้ ที่มหาวิทยาลัยเชื่อว่าสามารถตอบสนองหลักการดังกล่าวได้ คือ การจัดการเรียนรู้ ที่ใช้กิจกรรมหรือการปฏิบัติ (Active Learning) ที่หลากหลาย โดยเฉพาะการใช้ปัญหาเป็นฐานในการเรียนรู้ (Problem-based Learning) การใช้โครงงานเป็นฐาน (Project-based Learning) และการเรียนรู้โดยการบริการสังคม (Service Learning) และยึดพระราชปณิธานของสมเด็จพระบรมราชชนก “ขอให้ถือประโยชน์ของเพื่อนมนุษย์เป็นกิจที่หนึ่ง” เป็นแนวทางในการดำเนินการ

# Active Learning

- Active learning is a process that has student learning at its centre. Active learning focuses on how students learn, not just on what they learn. Students are encouraged to 'think hard', rather than passively receive information from the lecturer.

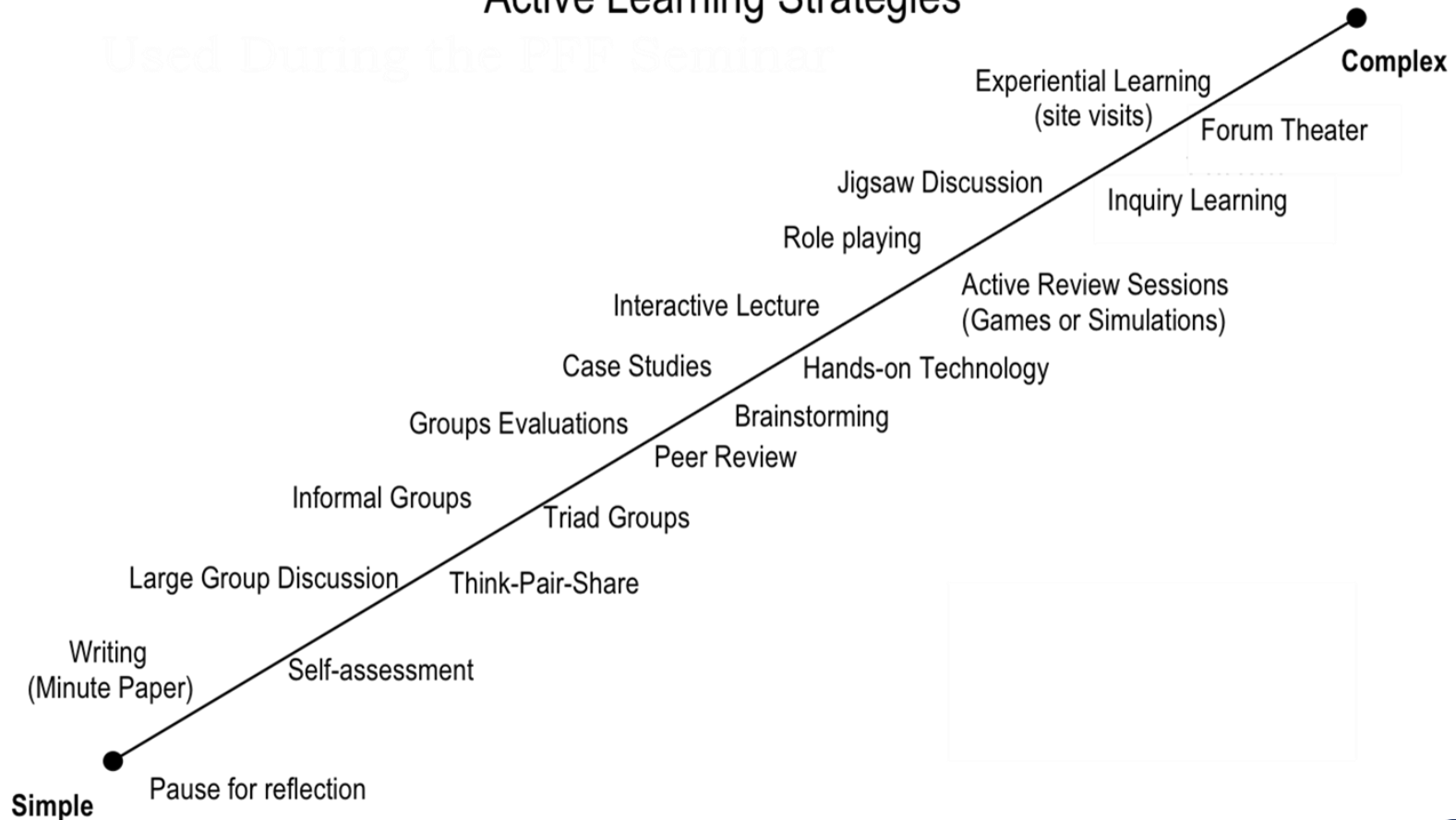
# Active Learning

- Active learning refers to a broad range of teaching strategies which engage students as active participants in their learning during class time with their teacher.
- Typically, these strategies involve some amount of students working together during class, but may also involve individual work and/or reflection.
- These teaching approaches range from short, simple activities like journal writing, problem solving and paired discussions, to longer, involved activities or pedagogical frameworks like case studies, role plays, and structured team-based learning.

# Active Learning

## Active Learning Strategies

Used During the PFF Seminar



This is a spectrum of some active learning activities arranged by complexity and classroom time commitment.

Prepared by Chris O'Neal and Tershia Pinder-Grover, Center for Research on Learning and Teaching, University of Michigan

# Active Learning

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# Life-long Learning

- The ability to discover knowledge for oneself.
- The ability to retain knowledge long term
- The ability to perceive relations between old and new knowledge.
- The ability to create new knowledge.
- The ability to apply one's knowledge to solve problems.
- The ability to communicate one's knowledge to others.
- An eagerness to know more.



# Dictionary

Search for a word



## in·still

/inˈstil/

verb

1. gradually but firmly establish (an idea or attitude, especially a desirable one) in a person's mind.  
"how do we **instill** a sense of rightness **in** today's youth?"

Similar:

inculcate

implant

fix

ingrain

infuse

impress

imprint



2. put (a substance) into (something).  
"she was told to **instill** confidence in the children."

Similar:

inculcate

## Dictionary

Search for a word



## in·cul·cate

/inˈkəl,kāt,ˈɪnkəl,kāt/

verb

instill (an attitude, idea, or habit) by persistent instruction.  
"the failures of the churches to **inculcate** a sense of moral responsibility"

Similar:

instil

implant

fix

ingrain

infuse

impress

imprint

introduce



- teach (someone) an attitude, idea, or habit by persistent instruction.  
"they will try to **inculcate** you **with** a respect for culture"

# Entrepreneurial Mindset



Source: Green, D. What is Quality in Higher Education? Concepts, Policy and Practice 1994

# AUN-QA at Programme Level 4.0

## Criterion 4 - Student Assessment

### Requirements

- 4.1 A variety of assessment methods<sup>f</sup> are shown to be used and are shown to be constructively aligned to achieving the expected learning outcomes and the teaching and learning objectives.
- 4.2 The assessment and assessment-appeal policies are shown to be explicit, communicated to students, and applied consistently.
- 4.3 The assessment standards and procedures for student progression and degree completion, are shown to be explicit, communicated to students, and applied consistently.
- 4.4 The assessment methods<sup>f</sup> are shown to include rubrics, marking schemes, timelines, and regulations, and these are shown to ensure validity, reliability, and fairness in assessment.
- 4.5 The assessment methods<sup>f</sup> are shown to measure the achievement of the expected learning outcomes of the programme and its courses.
- 4.6 Feedback of student assessment is shown to be provided in a timely manner.
- 4.7 The student assessment and its processes are shown to be continuously reviewed and improved to ensure their relevance to the needs of industry and alignment to the expected learning outcomes.

# AUN-QA at Programme Level 4.0

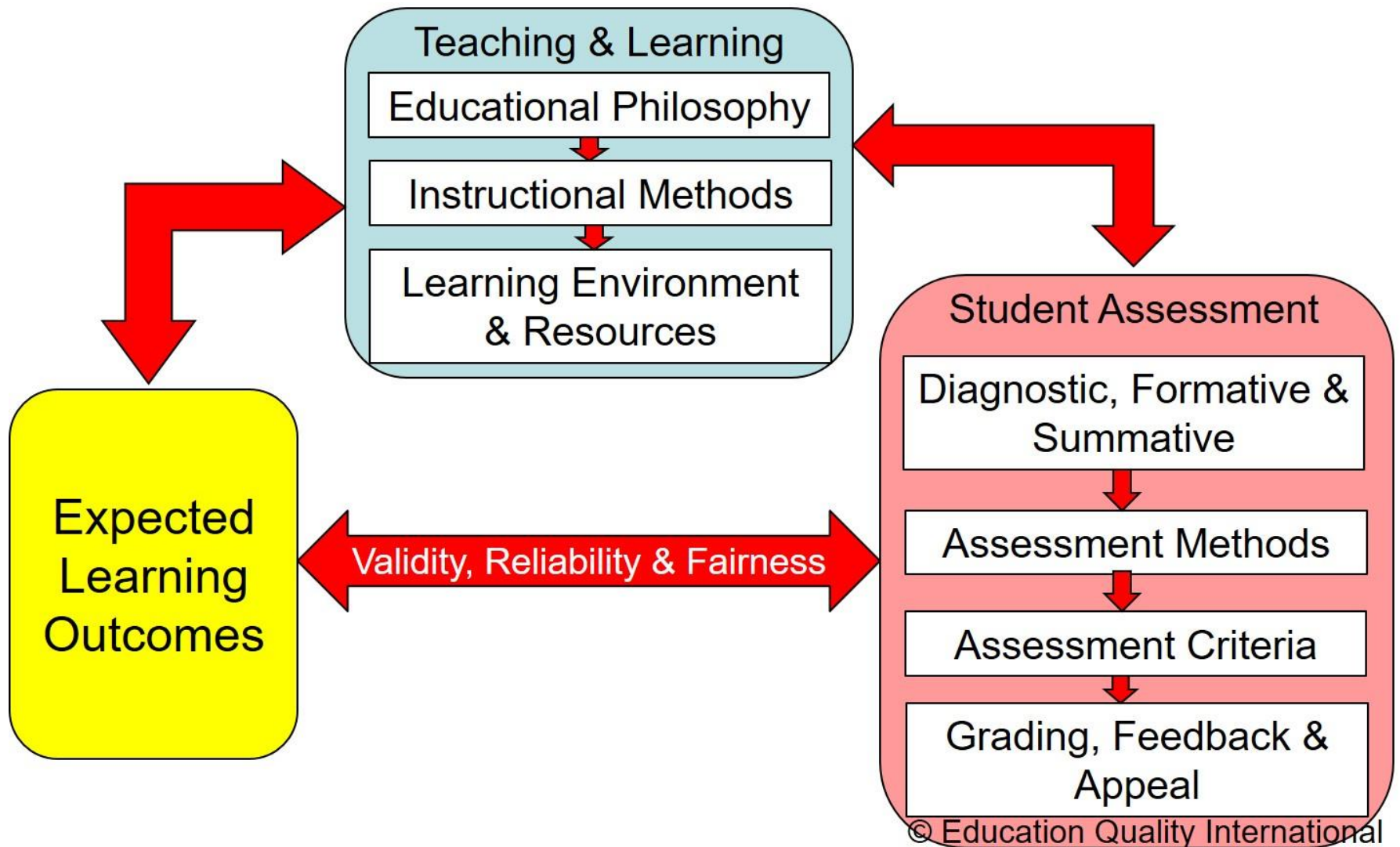
## **Criterion 4 - Student Assessment**

### **Addendum**

- f The term “assessment methods” for the programme research component may include semester-based and/or annual progress monitoring and reviews of student’s academic performance, as well as the final assessment of the thesis or dissertation leading to award of the postgraduate degree. The final assessment of the thesis or dissertation may also be referred to as viva-voce or thesis/dissertation defence.

# Student Assessments

- Measuring learning outcomes at each level
  - PLO, YLO, CLO, LLO
- Constructive alignment
- Standardization (assessment standard / common rubrics & marking schemes)
- Criterion-referenced อิงเกณฑ์ ← OBE
- Preferring formative assessment to summative assessment
- Validity / Reliability / Fairness



# Scoring rubrics

- Not for all assessments
- Rubrics are suitable for soft skills (presentation etc.) and attitude.
- Answering questions สอบข้อเขียน -> marking schemes



# Scoring rubrics

## PRESENTATION

	LEVEL 4	LEVEL 3	LEVEL 2	LEVEL 1
	Exceptional	Effective	Acceptable	Developing
<b>Knowledge / Understanding</b>				
Demonstrates an understanding of the topic	thorough understanding	considerable understanding ✓	moderate understanding	emerging understanding
<b>Inquiry / Thinking</b>				
Develops and supports an original idea or opinion about the topic	thorough development and support	considerable development and support	moderate development and support ✓	emerging sense of development and support
<b>Communication</b>				
Addresses audience and speaks clearly with fluency, structure, and purpose	high degree of fluency, structure, and purpose	considerable fluency, structure, and purpose ✓	moderate fluency, structure, and purpose	emerging fluency and sense of structure and purpose
<b>Application</b>				
Exercises rhetorical skills such as emphasis, timing, pacing, reasoning, and questioning	high degree of skill	considerable skill	moderate skill	emerging skill ✓

Overall Grade:  $\frac{9}{16} = 56\%$



# Scoring rubrics

## Breakfast in Bed: Analytic Rubric

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
<b>Food</b>	Most food is colder or warmer than it should be, is under- or over-seasoned, or is under- or overcooked.	Some food is colder or warmer than it should be, is under- or over-seasoned, or is under- or overcooked.	All food is at the correct temperature, adequately seasoned, and cooked to the eater's preference.	All food is perfectly cooked and seasoned to the eater's preference. Additional condiments are offered.	
<b>Presentation</b>	More than one item (tray, napkin, or silverware) are dirty or missing.	Tray, napkin or silverware may be dirty or missing.	Food is served on a clean tray, with napkin and silverware. Some decorative additions may be present.	Food is served on a clean tray, with napkin and silverware. Several decorative touches are added.	
<b>Comfort</b>	Wake-up is abrupt, little to no help with seating, and the recipient is rushed and crowded during the meal.	Wake-up is somewhat abrupt, recipient may struggle with seat adjustment, or there may be some rushing or crowding during eating.	Recipient is woken gently, assisted in seat adjustment, and given reasonable time and space to eat.	Recipient is woken gently and lovingly, assisted until seating is just right, and given abundant time and space to eat.	

# Marking schemes

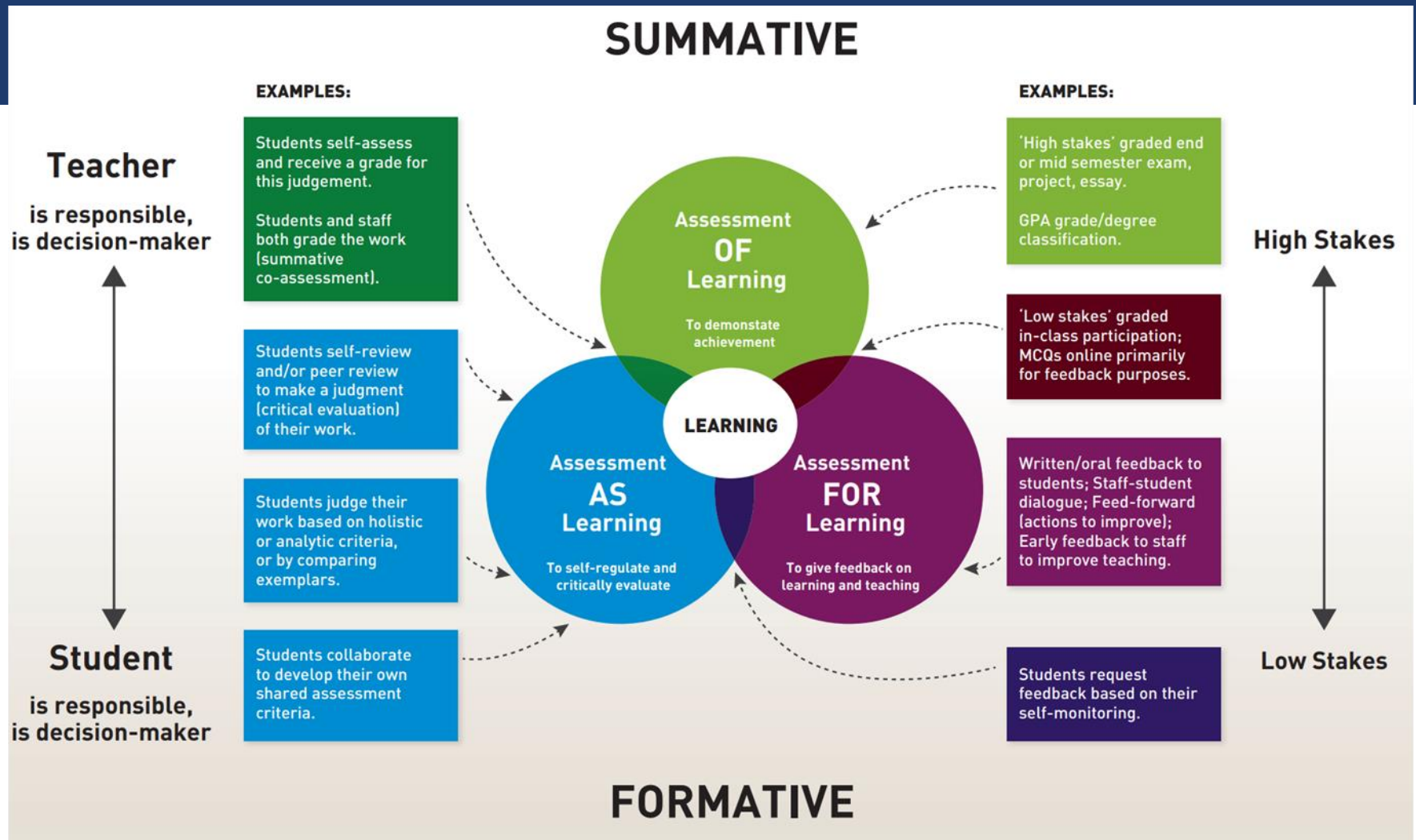
**Chemistry Marking scheme**  
**Delhi - 2016**  
**Set – 56/1/3/D**

Q.No	VALUE POINTS	MARKS
1	Ferromagnetism	1
2	$\text{CH}_3\text{CH}_2\text{CH}(\text{Cl})\text{CH}_3$ ; secondary halide/ $2^\circ$ carbocation is more stable	$\frac{1}{2}$ , $\frac{1}{2}$
3	$\text{NH}_3$	1
4	Like Charged particles cause repulsion/ Brownian motion/ solvation	1
5	2,4,6-Tribromoaniline / 2,4,6-Tribromobenzenamine	1
6	(i) $[\text{Cr}(\text{H}_2\text{O})_5\text{Cl}]\text{Cl}_2 \cdot \text{H}_2\text{O}$	1
	(ii) pentaquachloridoChromium(III) chloride monohydrate (or chloride hydrate) (no deduction for not writing hydrate)	1
7	(i) Mercury cell	$\frac{1}{2}$
	(ii) Fuel cell	$\frac{1}{2}$
	(iii) Lead storage battery	$\frac{1}{2}$
	(iv) Dry cell	$\frac{1}{2}$
8	A- $\text{Na}_2\text{CrO}_4$	$\frac{1}{2}$
	B- $\text{Na}_2\text{Cr}_2\text{O}_7$	$\frac{1}{2}$
	C- $\text{K}_2\text{Cr}_2\text{O}_7$	$\frac{1}{2}$
	Use- strong oxidising agent / as a primary standard in volumetric analysis	$\frac{1}{2}$
OR		
8	$8\text{MnO}_4^- + 3\text{S}_2\text{O}_3^{2-} + \text{H}_2\text{O} \longrightarrow 8\text{MnO}_2 + 6\text{SO}_4^{2-} + 2\text{OH}^-$	1
	$\text{Cr}_2\text{O}_7^{2-} + 14\text{H}^+ + 3\text{Sn}^{2+} \rightarrow 2\text{Cr}^{3+} + 3\text{Sn}^{4+} + 7\text{H}_2\text{O}$	1

# Marking schemes

1/1/1	1/1/2	1/1/3	SUGGESTED VALUE POINTS	(DELHI-2017)
			<b>SECTION A: READING</b>	
			<b>COMPREHENSION PASSAGE</b>	
1	1	1	NOTE: No mark(s) should be deducted for mistakes in usage and grammar, spelling, or word limit. Full marks may be awarded if a student has been able to identify the core ideas. If a student literally lifts a portion of the given passage as an answer to a question, no mark(s) to be deducted for this as long as it is relevant.	<b>12 marks</b>
(a)	(a)	(a)	(ii) no one stared at him	<b>1 mark</b>
(b)	(b)	(b)	(i) Heaven Lake / (ii) Mount Bogda	<b>1 mark</b>
(c)	(c)	(c)	(iv) there were thick quilts on the bed	<b>1 mark</b>
(d)	(d)	(d)	(ii) a shining prism	<b>1 mark</b>
(e)	(e)	(e)	bumpy ride; man eating overpoweringly smelly goat's cheese; leaking windows (any two)	<b><math>\frac{1}{2} + \frac{1}{2} = 1</math> mark</b>
(f)	(f)	(f)	– green ground/ slopes dark with pines/ cattle/ clear steam, moss covered stones	<b>1 mark</b>
(g)	(g)	(g)	– he wished he had brought something warmer than a pair of shorts/ the narrator did not carry warm clothes	<b>1 mark</b>
(h)	(h)	(h)	– kababs cooked on skewers over charcoal braziers, were particularly good / highly spiced / well done	<b>1 mark</b>
(i)	(i)	(i)	– several sizes too large but more than comfortable	<b>1 mark</b>
(j)	(j)	(j)	– because people often drowned there	<b>1 mark</b>
(k)	(k)	(k)	i) vendors	<b>1 mark</b>
			ii) exaggerated	<b>1 mark</b>

# Summative vs Formative Assessments



Source: National Forum for the Enhancement of Teaching and Learning in Higher Education, "Expanding our Understanding of Assessment and Feedback in Irish Higher Education," in *teachingandlearning.ie*, Published March 30, 2017, Last Accessed April 4, 2021, <https://www.teachingandlearning.ie/publication/expanding-our-understanding-of-assessment-and-feedback-in-irish-higher-education/>.

# Types of Assessments

- MCQs
- Short Answer Test
- Essay
- Performance Test
- Written Test
- Fieldwork/Practicum
- Projects
- Laboratory Test
- Thesis
- Presentation
- Portfolios
- Case Studies
- Posters
- Journals/Blogs

# AUN-QA at Programme Level 4.0

## Criterion 5 - Academic Staff

### Requirements

- 5.1 The programme to show that academic staff planning (including succession, promotion, re-deployment, termination, and retirement plans) is carried out to ensure that the quality and quantity of the academic staff fulfil the needs for education, research, and service.
- 5.2 The programme to show that staff workload is measured and monitored to improve the quality of education, research, and service.
- 5.3 The programme to show that the competences<sup>9</sup> of the academic staff are determined, evaluated, and communicated.
- 5.4 The programme to show that the duties allocated to the academic staff are appropriate to qualifications, experience, and aptitude.



# AUN-QA at Programme Level 4.0

## Criterion 5 - Academic Staff

### Requirements

- 5.5 The programme to show that promotion of the academic staff is based on a merit system which accounts for teaching, research, and service.
- 5.6 The programme to show that the rights and privileges, benefits, roles and relationships, and accountability of the academic staff, taking into account professional ethics and their academic freedom, are well defined and understood.
- 5.7 The programme to show that the training and developmental needs<sup>h</sup> of the academic staff are systematically identified, and that appropriate training and development activities are implemented to fulfil the identified needs.
- 5.8 The programme to show that performance management including reward and recognition is implemented to assess academic staff teaching and research quality.

# AUN-QA at Programme Level 4.0

## Criterion 5 - Academic Staff

### Addendum

- g The term “competences” of academic staff appointed to be a supervisor for a master’s or doctorate candidate or student should include competence to provide an effective supervision for a master’s or doctorate level project. This may include skills in providing guidance for the students to carry out their research works based on their study plan and monitor the student’s progression as according to the plan in order to ensure that they can finish their project as planned.
- h As such, the phrase “training and developmental needs” of the academic staff may include training on how to be an effective supervisor for a master’s or doctorate candidate or student.



# Competent academic staff

- Design and deliver a coherent teaching and learning curriculum.
- Apply a range of teaching and learning methods and select the most appropriate assessment methods to achieve the expected learning outcomes.
- Develop and use a variety of instructional media.
- Monitor and evaluate their own teaching performance and evaluate courses that they deliver.
- Reflect upon their own teaching practices.
- Conduct research and provide services to benefit stakeholders.

# Competent academic staff

Category	M	F	Total		Percentage of PhD
			Headcount	FTE	
Professors					
Associate/ Assistant Professors					
Full-time Lecturers					
Part-time Lecturers					
Visiting Professors/ Lecturers					
Total					

Number of Academic Staff (specify reference date and method of calculation used for FTE of academic staff)

# FTE

- Full-Time Equivalent
- ศูนย์บริการจัดการคุณภาพองค์กร
- <http://www.qa.psu.ac.th/cuptqa.php>

## » การคำนวณค่า FTE ระดับหลักสูตร ในเกณฑ์ AUN 6

- ตัวอย่าง การคำนวณค่า FTE ของอาจารย์
  - ตัวอย่างการคำนวณค่า FTE ของนักศึกษา (หลักสูตรระดับปริญญาตรี)
  - ปรับแนวทางการคำนวณ FTE ตามเกณฑ์ AUN 6 ของนักศึกษา มหาวิทยาลัยสงขลานครินทร์ (มอ 001.3 /ว 295)
  - ข้อมูลจำนวนหน่วยกิต ของนักศึกษา แยกหลักสูตร ปีการศึกษา 2558 สำหรับคิดค่า FTE
- Oftentimes full-time equivalent (FTE) and staff-to-student ratio are used to determine the needed number of academic staff.

# Academic Staff

ตามข้อกำหนดของม.อ.

- Promotion ได้แก่ ตำแหน่งวิชาการ / TPSF
- Privileges and benefits ได้แก่ สวัสดิการด้านต่าง ๆ
- Performance management ได้แก่ การประเมินเลื่อนขั้นเงินเดือนตาม TOR

# AUN-QA at Programme Level 4.0

## Criterion 6 - Student Support Services

### Requirements

- 6.1 The student intake policy, admission criteria, and admission procedures to the programme are shown to be clearly defined, communicated, published, and up-to-date.
- 6.2 Both short-term and long-term planning of academic and non-academic support services are shown to be carried out to ensure sufficiency and quality of support services for teaching, research, and community service.
- 6.3 An adequate system is shown to exist for student progress, academic performance, and workload monitoring. Student progress, academic performance, and workload are shown to be systematically recorded and monitored. Feedback to students and corrective actions are made where necessary.

# AUN-QA at Programme Level 4.0

## Criterion 6 - Student Support Services

### Requirements

- 6.4 Co-curricular activities, student competition, and other student support services are shown to be available to improve learning experience and employability.
- 6.5 The competences of the support staff rendering student services are shown to be identified for recruitment and deployment. These competences are shown to be evaluated to ensure their continued relevance to stakeholders needs. Roles and relationships are shown to be well-defined to ensure smooth delivery of the services.
- 6.6 Student support services are shown to be subjected to evaluation, benchmarking, and enhancement.

# Student Support Services



© Can Stock Photo - csp11267244

Admission (6.1)



Student Progress and  
Activities (6.3, 6.4)



Graduation (6.4)

Academic and Non-Academic Support Services (6.2, 6.5, 6.6)



Support Staff	Highest Educational Attainment				Total
	High School	Bachelor's	Master's	Doctoral	
Library Personnel					
Laboratory Personnel					
IT Personnel					
Administrative Personnel					
Student Services Personnel (enumerate the services)					
Total					

Number of Support Staff (specify reference date)



### Intake of First-Year Students (last 5 academic years)

Academic Year	Applicants		
	No. Applied	No. Offered	No. Admitted/Enrolled

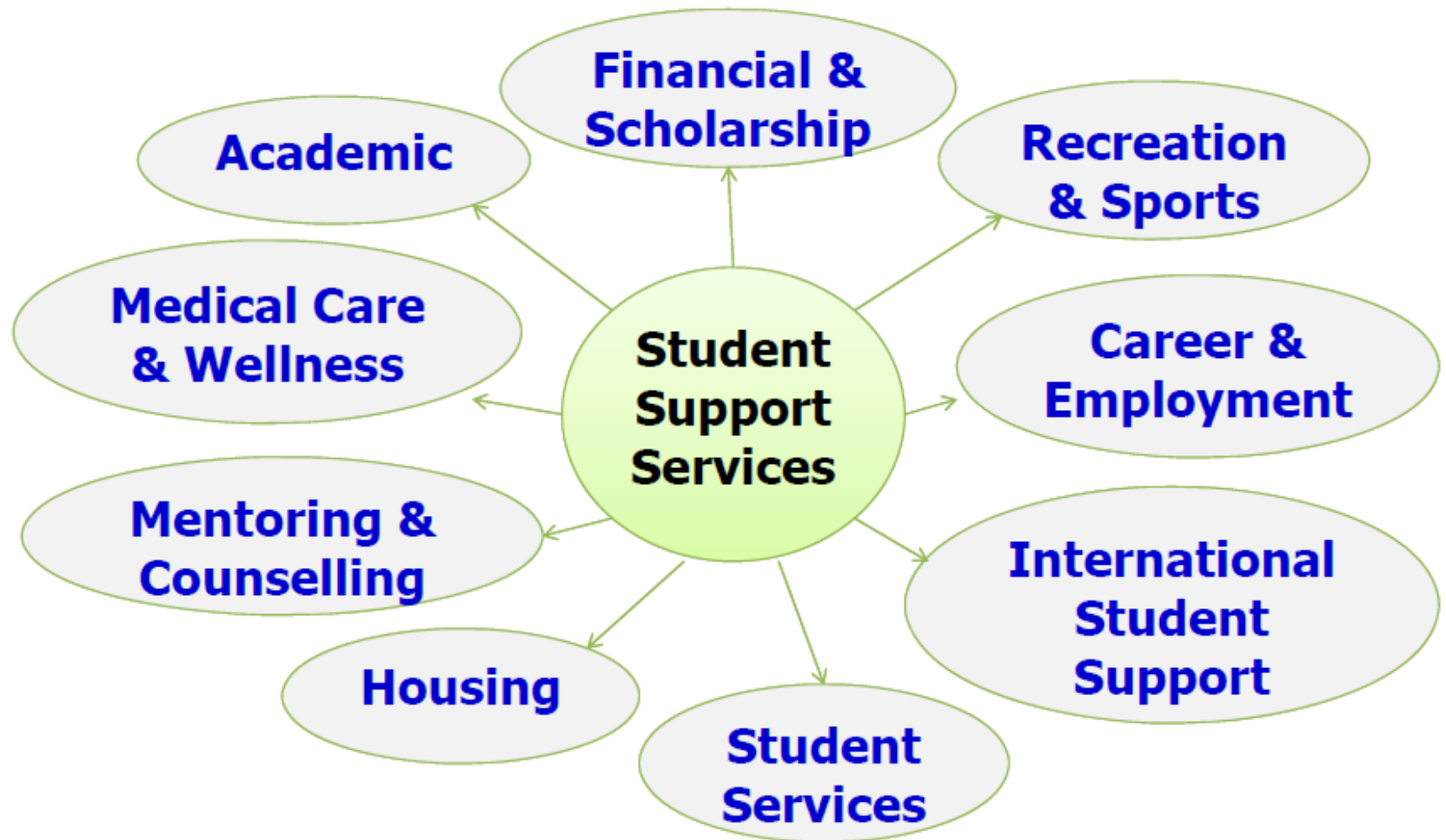
### Total Number of Students (last 5 academic years)

Academic Year						
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	>4 <sup>th</sup> Year	Total

AUN-QA Criterion 6	Student Support Services
What is the requirement?	6.5 The competences of the support staff rendering student services are shown to be identified for recruitment and deployment. These competences are shown to be evaluated to ensure their continued relevance to stakeholders needs. Roles and relationships are shown to be well-defined to ensure smooth delivery of the services.
What to write?	<ol style="list-style-type: none"> <li>1. What are the organisation units and their staff strengths in providing student services?</li> <li>2. What is the competency framework of the support staff?</li> <li>3. What are the categories and competences of the support staff?</li> <li>4. How the competences are identified, determined, developed, evaluated?</li> <li>5. What are the roles and relationships of support staff and how they are defined?</li> <li>6. How the quality of student services is measured, monitored and evaluated?</li> <li>7. How competences are aligned to the recruitment, promotion, training and development, performance management, and compensation and rewards systems?</li> </ol>
What is the evidence?	HR regulations and policies, staff handbook, job description, competency framework, support staff competences, recruitment, training and development, performance management, compensation and rewards, organisation structures and charts

AUN-QA Criterion 6	Student Support Services
What is the requirement?	6.6 Student support services are shown to be subjected to evaluation, benchmarking, and enhancement.
What to write?	<ol style="list-style-type: none"> <li>1. What kinds and quality of student support services are measured and monitored?</li> <li>2. How student support services are evaluated, benchmarked and improved to meet the needs of stakeholders?</li> <li>3. What improvements were implemented over the years?</li> </ol>
What is the evidence?	Student feedback and surveys, service indicators, results and trend, benchmarking reports, improvement plans

# Student Supports and Services



# AUN-QA at Programme Level 4.0

## **Criterion 7 - Facilities and Infrastructure**

### **Requirements**

- 7.1 The physical resources to deliver the curriculum, including equipment, material, and information technology, are shown to be sufficient.
- 7.2 The laboratories and equipment are shown to be up-to-date, readily available, and effectively deployed.
- 7.3 A digital library is shown to be set-up, in keeping with progress in information and communication technology.
- 7.4 The information technology systems are shown to be set up to meet the needs of staff and students.
- 7.5 The university is shown to provide a highly accessible computer and network infrastructure that enables the campus community to fully exploit information technology for teaching, research, service, and administration.

# AUN-QA at Programme Level 4.0

## Criterion 7 - Facilities and Infrastructure

### Requirements

- 7.6 The environmental, health, and safety standards and access for people with special needs are shown to be defined and implemented.
- 7.7 The university is shown to provide a physical, social, and psychological environment that is conducive for education, research, and personal well-being.
- 7.8 The competences of the support staff rendering services related to facilities are shown to be identified and evaluated to ensure that their skills remain relevant to stakeholder needs.
- 7.9 The quality of the facilities (library, laboratory, IT, and student services) are shown to be subjected to evaluation and enhancement.

# 7.4 vs 7.5

- 7.4 = Software / Information System
- 7.5 = IT Hardware / Infrastructure / Network

# Facilities and Infrastructure

- Stakeholders' Needs
- Alignment with Programme Objectives/Outcomes
- Maintenance & Upgrade system to standard

Source: Anuwong, K (2016)



AUN-QA Criterion 7	Facilities and Infrastructure
What is the requirement?	7.8 The competences of the support staff rendering services related to facilities are shown to be identified and evaluated to ensure that their skills remain relevant to stakeholder needs.
What to write?	<ol style="list-style-type: none"> <li>1. What are the organisation units and their staff strengths in providing facility services?</li> <li>2. What is the competency framework of the support staff?</li> <li>3. What are the categories and competences of the support staff?</li> <li>4. How the competences are identified, determined, developed, evaluated?</li> <li>5. How competences are aligned to the recruitment, promotion, training and development, performance management, and compensation and rewards systems?</li> </ol>
What is the evidence?	HR regulations and policies, staff handbook, job description, competency framework, support staff competences, recruitment, training and development, performance management, compensation and rewards, organisation structures and charts

AUN-QA Criterion 7	Facilities and Infrastructure
What is the requirement?	7.9 The quality of the facilities (library, laboratory, IT, and student services) are shown to be subjected to evaluation and enhancement.
What to write?	<ol style="list-style-type: none"> <li>1. What are the indicators for the quality of facilities and related services (7.1 to 7.7)?</li> <li>2. How they are established, monitored and evaluated to meet the needs of stakeholders?</li> <li>3. What improvements were implemented over the years?</li> </ol>
What is the evidence?	Student feedback and surveys, quality indicators, results and trend, benchmarking reports, improvement plans

# AUN-QA at Programme Level 4.0

## Criterion 8 - Output and Outcomes

### Requirements

- 8.1 The pass rate, dropout rate, and average time to graduate<sup>i</sup> are shown to be established, monitored, and benchmarked for improvement.
- 8.2 Employability<sup>j</sup> as well as self-employment, entrepreneurship, and advancement to further studies, are shown to be established, monitored, and benchmarked for improvement.
- 8.3 Research and creative work output<sup>k</sup> and activities carried out by the academic staff and students, are shown to be established, monitored, and benchmarked for improvement.
- 8.4 Data are provided to show directly the achievement of the programme outcomes, which are established and monitored.
- 8.5 Satisfaction level of the various stakeholders are shown to be established, monitored, and benchmarked for improvement.

# 8.4

AUN-QA Criterion 8	Output and Outcomes
What is the requirement?	8.4 Data are provided to show directly the achievement of the programme outcomes, which are established and monitored.
What to write?	<ul style="list-style-type: none"><li>• What are the programme outcomes?</li><li>• How they are measured, monitored and achieved over the last 5 years?</li><li>• How the programme outcomes are analysed for improvement and what improvement has been realised?</li></ul>
What is the evidence?	ELOs, achievement of ELOs, trends, graphs, improvement plans, benchmarking data, assessment results analyses and reports

# 8.5

AUN-QA Criterion 8	Output and Outcomes
What is the requirement?	8.5 Satisfaction level of the various stakeholders are shown to be established, monitored, and benchmarked for improvement.
What to write?	<ol style="list-style-type: none"><li>1. Who are the stakeholders and how satisfaction is defined for each category of stakeholders?</li><li>2. How stakeholder's satisfaction is measured and monitored?</li><li>3. What are the results and trends of stakeholders' satisfaction over 5 years?</li><li>4. How they are analysed and benchmarked for improvement and what improvement has been realised?</li></ol>
What is the evidence?	Stakeholders' surveys, satisfaction indicators, trends, graphs, improvement plans, benchmarking data

# AUN-QA at Programme Level 4.0

## Criterion 8 - Output and Outcomes

### Addendum

- i The component “average time to graduate” may be or may not be considered based on contexts of the discipline and the country. While average time to graduate could indicate programme efficiency and may still be monitored, if average time to graduate for a postgraduate programme is not considered important in the country’s higher education eco-system of the assessed institution, this component may be omitted in the evaluation process for this requirement. However, the consideration of this component is subject to the judgement by the lead assessor, upon consultation with the chief assessor.

# AUN-QA at Programme Level 4.0

## Criterion 8 - Output and Outcomes

### Addendum

- j The component “employability” for master’s or doctorate graduates may be or may not be considered in the assessment process based on the country’s contexts. Even though it may be monitored periodically as one of the programme metrics, there may be circumstances that the graduate employability of the programme may not be a norm in the country of the assessed institution or viable indicator for measurement of the programme achievement. In this case, this component or the whole statement in the Requirement 8.2 may be omitted in the evaluation process. Alternatively, other “appropriate measures” may be used to monitor the success of the postgraduate programme. As such, similar to the Requirement 8.1, the consideration of this component or the whole Requirement 8.2 is subject to the judgement by the lead assessor, upon consultation with the chief assessor.



# AUN-QA at Programme Level 4.0

## Criterion 8 - Output and Outcomes

### Addendum

k The term “research and creative work output” may include any kind of output or deliverables produced by the academic staff and students in conjunction with the research and creative work activities carried out and performed by the academic staff and students involved in the programme. The outputs or deliverables may be in form of publication materials such as journal articles, articles or chapters in books, technical reports, monographs, artefacts, etc.



## Pass rate and dropout rate

Academic Year	Cohort Size	% completed first degree in			% dropout during			
		3 Years	4 Years	>4 Years	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Years & Beyond

## Types and Number of Research Publication

(ถ้าเป็นไปได้ แยกระหว่างอาจารย์ กับนักศึกษา)

Academic Year	Types of Publication				Total	No. of Publications per Academic Staff
	In-house/ Institutional	National	Regional	International		

# 1.5 & 4.5 & 8.4

**1.5** The programme to show that the expected learning outcomes are achieved by the students by the time they graduate.

**4.5** The assessment methods are shown to measure the achievement of the expected learning outcomes of the programme and its courses.

**8.4** Data are provided to show directly the achievement of the programme outcomes, which are established and monitored.

