

Implementation of authentic assessment of internationally comparable learning outcomes in degree programmes

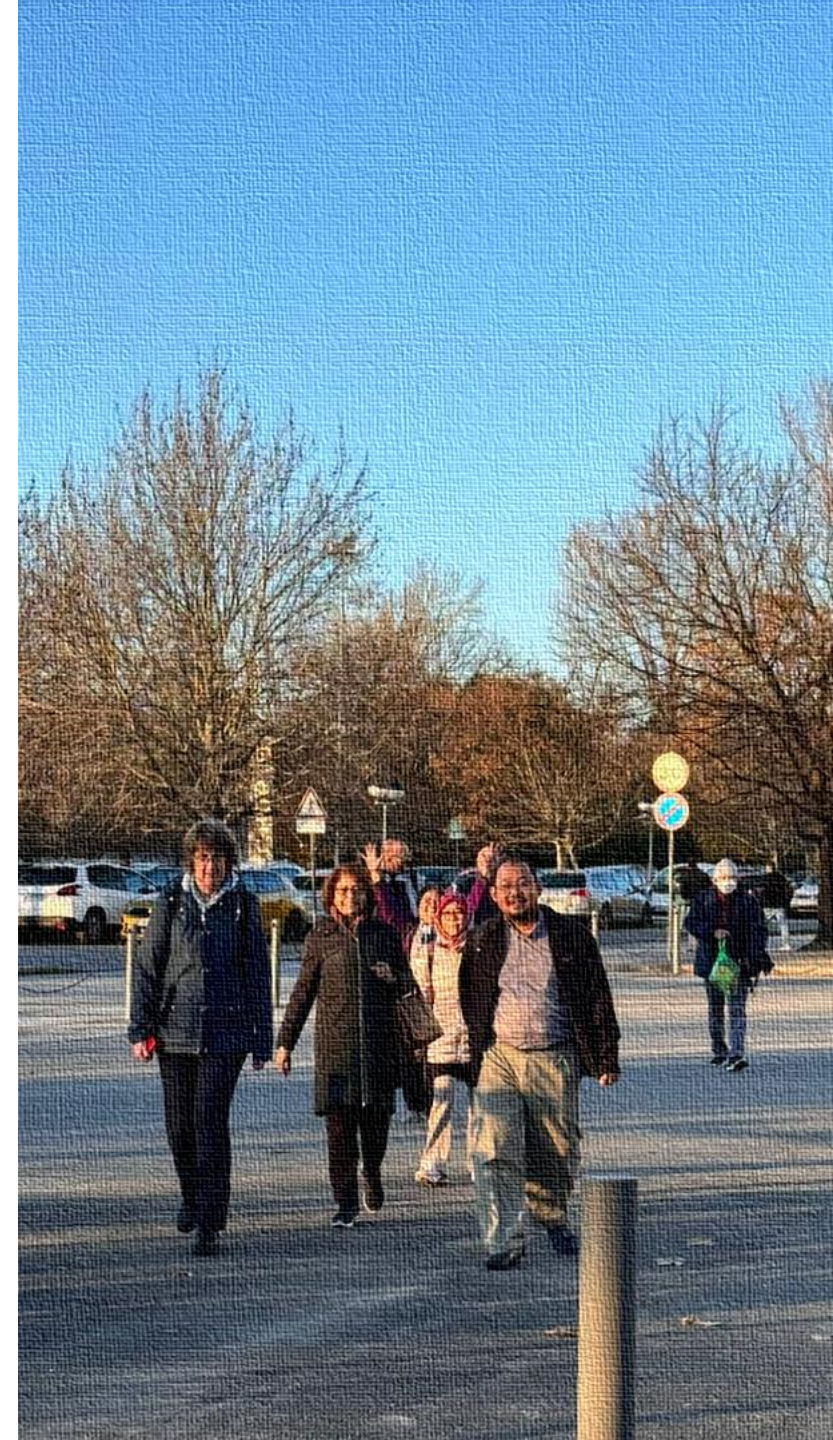
CALOHEA SUBJECT AREA GROUP (SAG) MEDICINE

Institutional Team

Universiti Sains Malaysia (USM), Malaysia
 Universitas Padjadjaran (UNPAD), Indonesia
 University Malaya (UM), Malaysia
 Universitas Hasanuddin (UNHAS), Indonesia
 University of Medicine and Pharmacy (UMP), Vietnam
 West Visayas State University (WVSU), Philippines

European Team Advisors

University of Pisa, Italy
 University of Groningen, the Netherlands



This report consists of

(3) The
inspirational
examples of
authentic
assessment



The region-wide subject-specific qualifications reference framework (SSQRF) for SAG Medicine

1. Personal care
2. Family care
3. Community care
4. Population care

1. Ethics
2. Humanities
3. Diversity



1. Teamwork & leadership
2. Resilience
3. Self-Care
4. Professional values
5. Social & environmental accountability
6. Life-long learning skills
7. Communication skills

1. History taking
2. Physical examination
3. Clinical reasoning
4. Clinical diagnosis
5. Clinical management
6. Patient safety

1. Critical and innovative thinking
2. Scientific and research skills
3. Evidence-based medicine
4. Digital skills
5. Financial skills for non-manager
6. Medico-legal in clinical practice

1. Basic medical sciences
2. Clinical medical sciences

MEDICAL COMPETENCY REFERENCE FRAMEWORK

To ensure the readiness of medical graduates to assume the responsibilities of a junior doctor, a comprehensive competency framework has been developed. This framework delineates the essential knowledge, skills, and responsibilities that medical graduates must acquire to meet the demands of their roles effectively.

- **Knowledge Acquisition:** Medical graduates are expected to acquire a deep understanding of various domains essential for junior doctor responsibilities.
- **Skills Attainment:** Medical graduates must acquire the following skills to perform their expected responsibilities competently.
- **Responsibility Expectations:** As individuals and professionals, medical graduates are expected to uphold the highest standards of patient care.

The detail of description for each domain and subdomain of the competency framework was provided in the previous document (SAG Final – SSQRF with explanatory text).





Inspirational Examples of authentic assessment


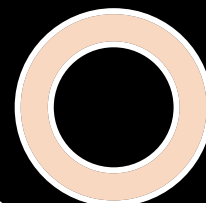
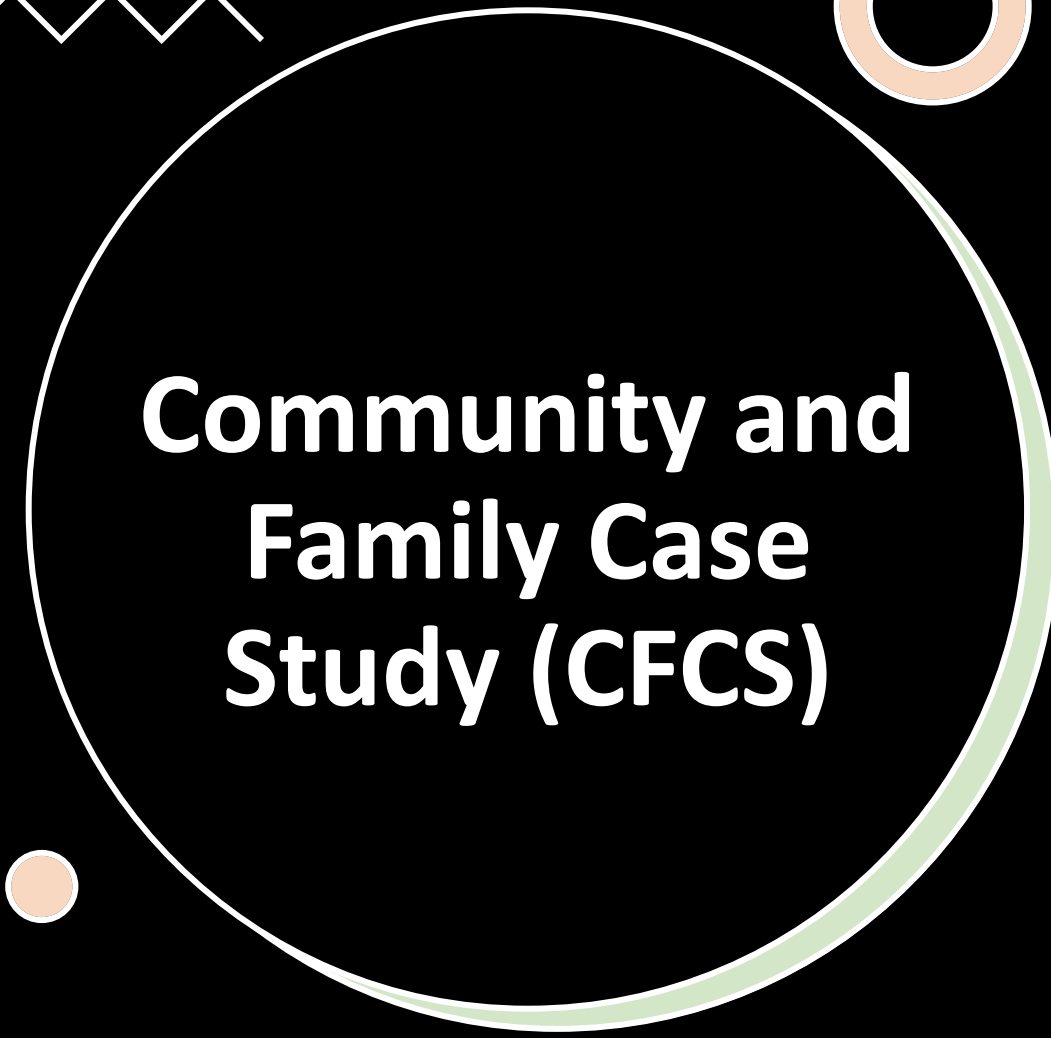

Incorporating authentic assessment methods into medical education is essential for fostering meaningful learning experiences and preparing future healthcare professionals for real-world challenges.

The following page provides the list of inspirational examples of authentic assessment methods tailored to various domains and sub-domains of Medicine Competency Reference Framework from different ASEAN countries.

Inspirational Examples of Authentic Assessment


1. Health & Wellbeing - Community Care: **Community and Family Case Study (CFCS)**, USM, Malaysia
2. Clinical Practice: **Shadow House Officer Training System (SHOTS)** USM, Malaysia
3. Ethics & Humanities - Diversity: **Health Social Science Project**, WVSU, Philippines
4. Clinical Practice: **Pre-internship (PRINT)**, UM, Malaysia
5. Professional Behaviour – Professional values: **360-degree assessment**, UNHAS, Indonesia
6. Professional – Teamwork: **Teamwork Mini-Clinical Evaluation Exercise (T-MEX)** , UNPAD, Indonesia
7. Quality Practice – Financial skills for non-manager: **Scholar Research Project**, UMP, Vietnam





Community and Family Case Study (CFCS)

The CFCS involves analyzing complex patient cases within the context of their families and communities. Students are tasked with developing comprehensive care plans that address not only the patient's medical needs but also their social determinants of health. This assessment method promotes understanding of health and wellbeing in a holistic manner, emphasizing the importance of community-centered care.




Shadow House Officer Training System (SHOTS)

SHOTS immerses students in simulated clinical environments, allowing them to shadow experienced healthcare professionals and participate in real-time patient care activities. Through hands-on experience and direct observation, students develop clinical skills, enhance decision-making abilities, and learn to navigate complex clinical scenarios. This assessment method provides a realistic simulation of clinical practice, enabling students to apply theoretical knowledge in authentic settings.



Health Social Science Project

The Health Social Science Project encourages students to explore ethical and humanistic aspects of healthcare through interdisciplinary research and reflection. Students may investigate topics such as patient autonomy, healthcare disparities, or ethical dilemmas in medical decision-making. By engaging in critical inquiry and dialogue, students deepen their understanding of ethical principles and develop empathy towards diverse patient populations.




Pre- internship (PRINT)

PRINT focuses on interdisciplinary teamwork and problem-solving in clinical settings. Students collaborate with healthcare professionals from different disciplines to address complex patient cases using evidence-based approaches. This assessment method emphasizes the importance of teamwork, communication, and patient-centered care in clinical practice.



360-degree Assessment

The 360-degree assessment solicits feedback from multiple stakeholders, including peers, supervisors, patients, and self-assessment, to evaluate students' professional behaviors and values. This comprehensive feedback loop provides students with insights into their strengths and areas for improvement in areas such as communication, professionalism, and ethical conduct.




Teamwork Mini-Clinical Evaluation Exercise (T-MEX)

T-MEX assesses students' teamwork skills through structured clinical encounters involving multidisciplinary teams. Students collaborate with colleagues to manage patient cases, communicate effectively, and make collaborative decisions. This assessment method highlights the importance of teamwork and interprofessional collaboration in delivering high-quality patient care.



Scholar Research Project

The Scholar Research Project challenges students to investigate healthcare management issues, including financial management, resource allocation, and quality improvement initiatives. By conducting research and proposing evidence-based solutions, students develop critical thinking skills and gain insight into the financial aspects of healthcare delivery.



The image shows a collection of paper boats on a white background. In the foreground, there is a single, bright yellow paper boat. Behind it and to the left, there are several white paper boats, some of which are slightly out of focus. The boats are simple in design, with a flat base and a pointed front.

Overall remark

These inspirational examples of authentic assessment methods illustrate the diversity of approaches available to assess various competencies in medical education. By incorporating authentic assessment into curricula, educators can better prepare medical students for the complexities of modern healthcare practice while promoting lifelong learning and professional growth.

The details of selected inspirational examples of authentic assessment are provided in the subsequent pages.



#01 Inspirational Example of Authentic Assessment for Community Care

Community Family Case Study (CFCS)

Authentic Assessment

Group Presentation 2:

- Specific study findings
- Community Diagnosis
- Plan for Community Intervention & Evaluation

- Supervisor Report
- Logbook & STEPs
- Peer assessment
- Community leaders feedback
- Group report

Community Profiles

Conduct household health surveys

Residency 1

Residency 2

Community Diagnosis

Plan and perform specific studies to determine community diagnosis

Group work
Field assessment

Community Intervention

Conduct health projects and promotions related to community diagnosis

Residency 3

Group Presentation 3:

- Community Intervention Implementation
- Project evaluation & sustainability

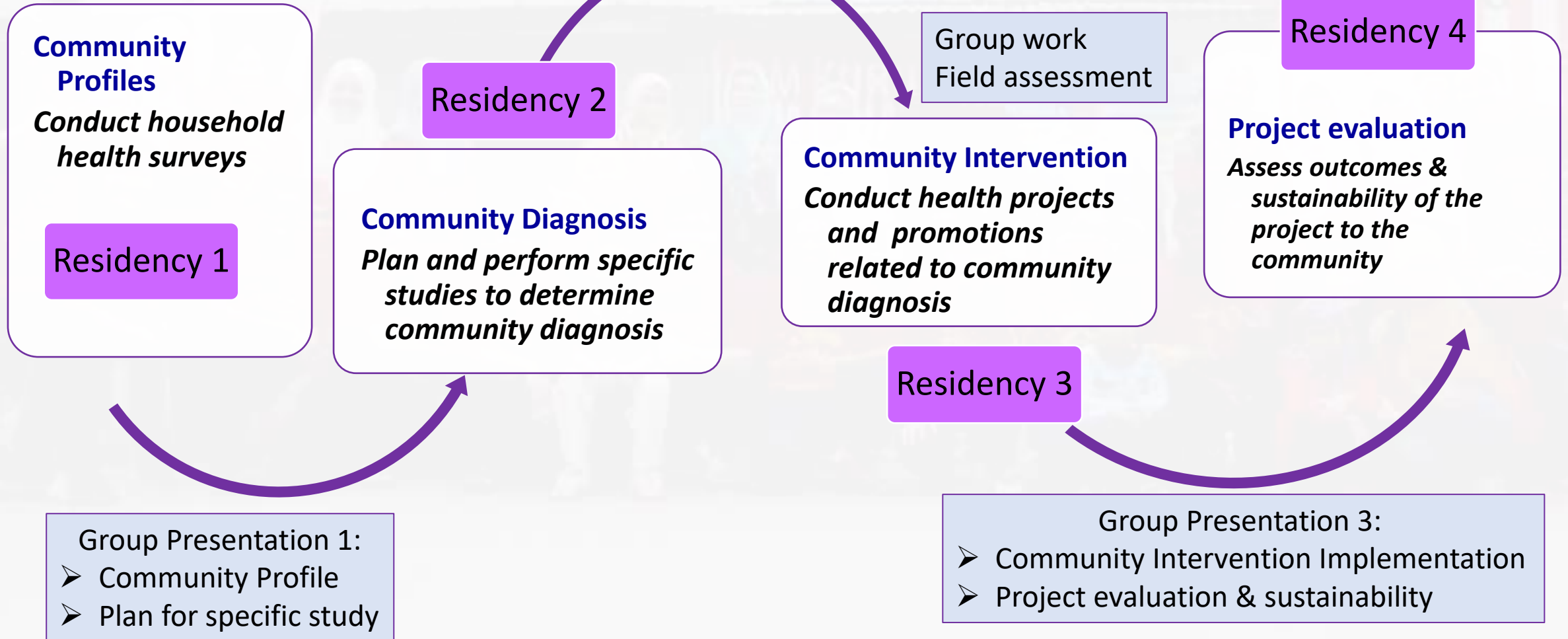
Residency 4

Project evaluation

Assess outcomes & sustainability of the project to the community

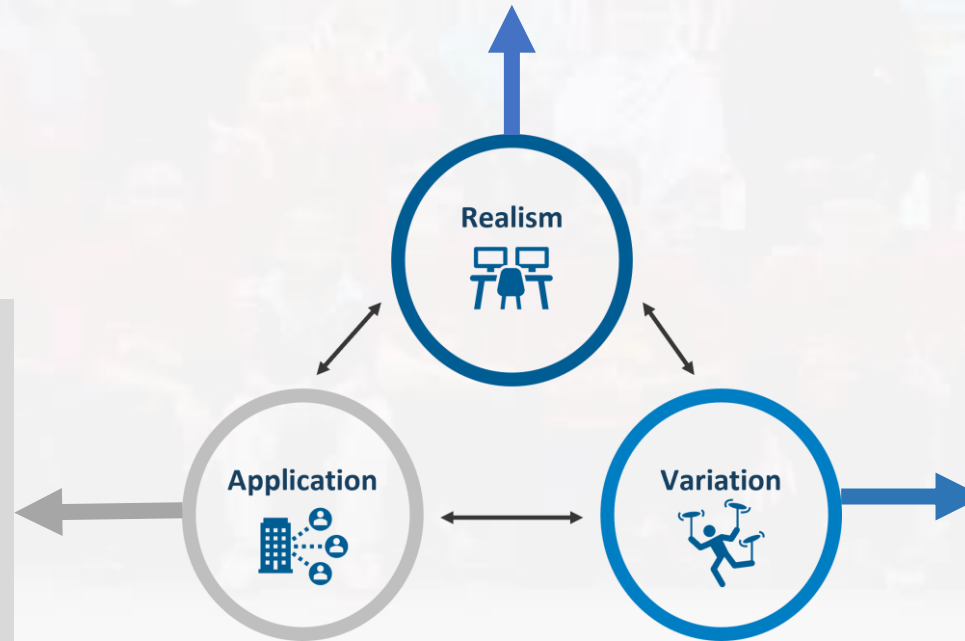
Group Presentation 1:

- Community Profile
- Plan for specific study



Authentic Assessment

- ✓ A doctor in the community needs to understand and get to know the community before they can serve effectively
- ✓ Community Care is not only curative but also preventive including promoting health & well being



Application of the theory in:

- ✓ Prevention & control of diseases
- ✓ Health education & Promotion
- ✓ Communication skills
- ✓ Medical research methodology & biostatistics

- Every community and every individual in the community has different health needs
- Importance of Intra and Inter-personal and Problem-solving skills in dealing with community leaders and residence

#1 Real-world application

Utilize skills needed in future work with the community and team



#2 Authentic audience

- *Work outside classroom with other people than the academics*
- *Collaborate with community leaders, agencies & local people*



Authentic Assessment

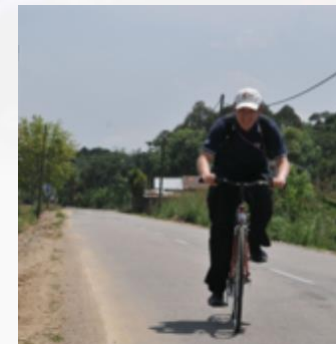
#4 Hands-on tasks

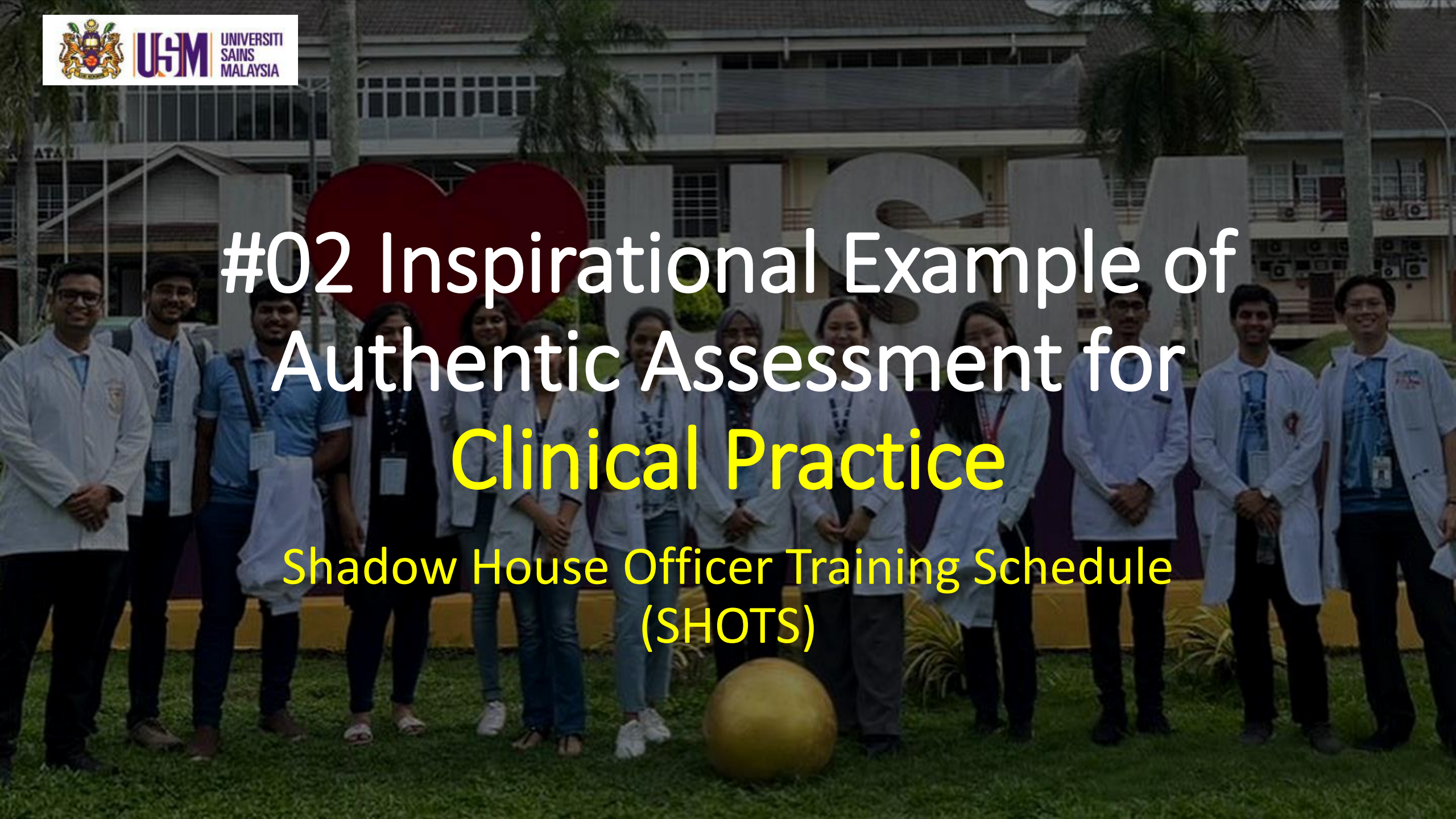
Group tasks in conducting, planning, designing, analyzing and implementing project



#3 Stage at different setting

Conduct and Implement project in the field i.e the community





#02 Inspirational Example of Authentic Assessment for Clinical Practice

Shadow House Officer Training Schedule
(SHOTS)

Course mapping

CLO	Outcome	PLO	LT	SS
CLO 1	Analyse the clinical features in order to determine the treatment for patients	PLO 3	C4	CTPS 3
CLO 2	Demonstrate the clinical examination findings in order to formulate diagnosis	PLO 2	P4	
CLO 3	Provide plan of management of common diseases	PLO 3	A3	LL 1
CLO 4	Demonstrate effective communication skills	PLO 4	A4	CS 1
CLO 5	Demonstrate professionalism and to practice medical ethics during treatment of a patient	PLO 6	A4	EM 1
CLO 6	Demonstrate clinical procedural skills	PLO 2	P4	

CLO: Course Learning Outcome PLO Program Learning Outcome LT : Learning Taxonomy SS Soft Skill

CTPS: Critical thinking & Problem solving; CS: Communication skill; LL: Life Long Learning, EM: Moral & Ethical Professional

SHOTS Courses

Shadow = Simulate
House **O**fficer = Intern
Training **S**chedule = Training
planned similar to the internship
schedule after graduation

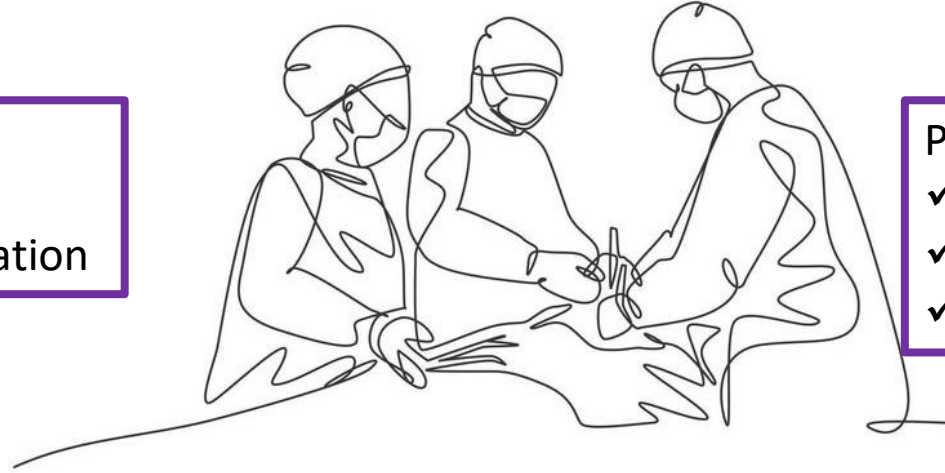


Student tasks



Clerk patient:

- ✓ History taking
- ✓ Physical Examination



Patient management:

- ✓ Investigations
- ✓ Procedures
- ✓ Surgery

Ward work

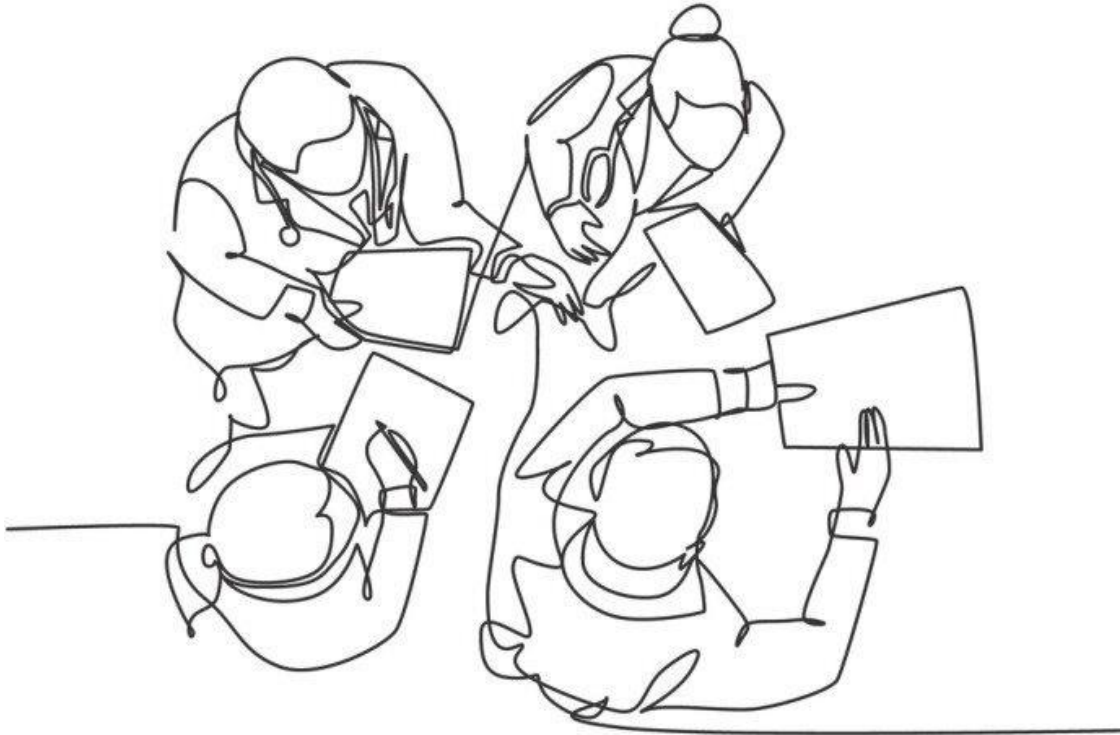
Ward rounds with consultant
Case Presentation and Discussion



SMR: Student Management Record

Student's file to record patient's history, findings, diagnosis, management and progress

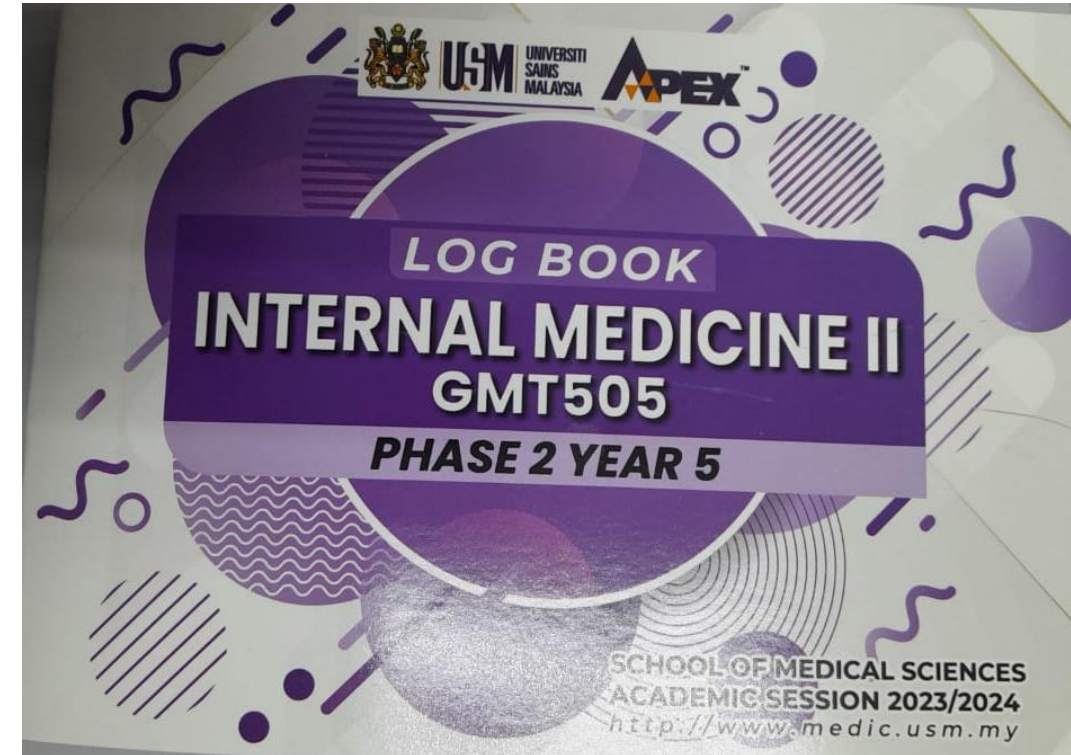
Other Teaching & Learning Activities



CBL: Case-based Learning

Discussion of selected cases with lecturers and groupmates on diagnosis and patient management

Seminars & Lectures



Log book

Task to be performed in each posting

SHOTS: Assessment



STEPS: Simplified Thematic Engagement of Professionalism Scale

Evaluation of student professionalism by clinical supervisor
15 attributes on Personal, Profession, Patient and Public theme

SMR: Student Management Record

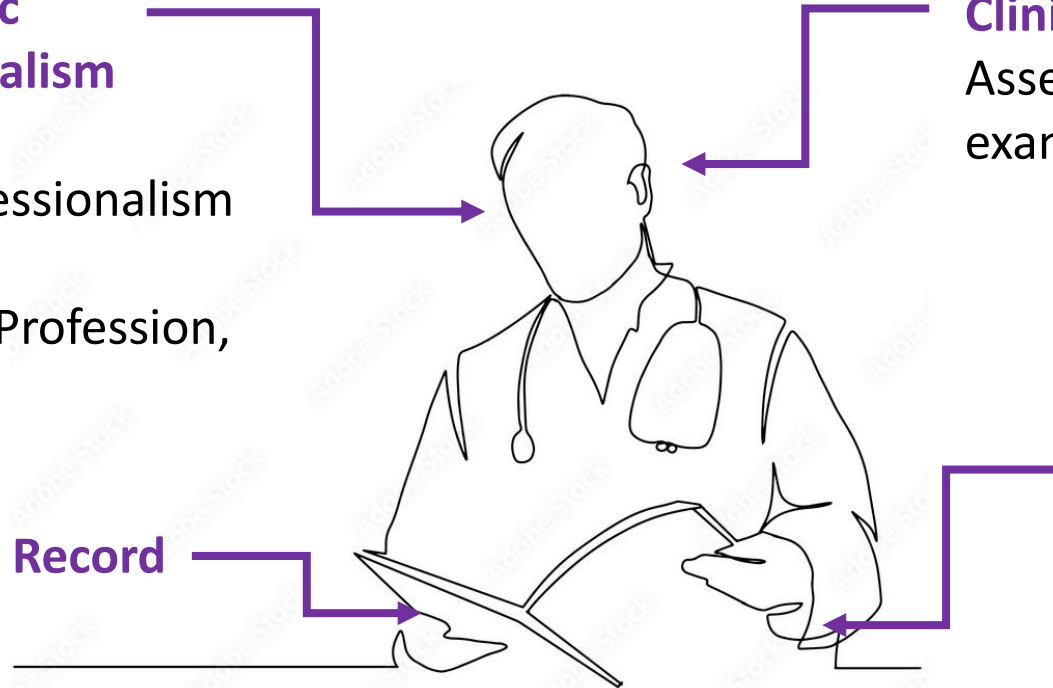
Viva voce on SMR

Clinical assessment

Assess history taking, physical examination and plan of management

Log Book

Clinical task and procedures performed



Final written exit examination

Authentic Assessment: CALOHEA Descriptors & Assessment Task

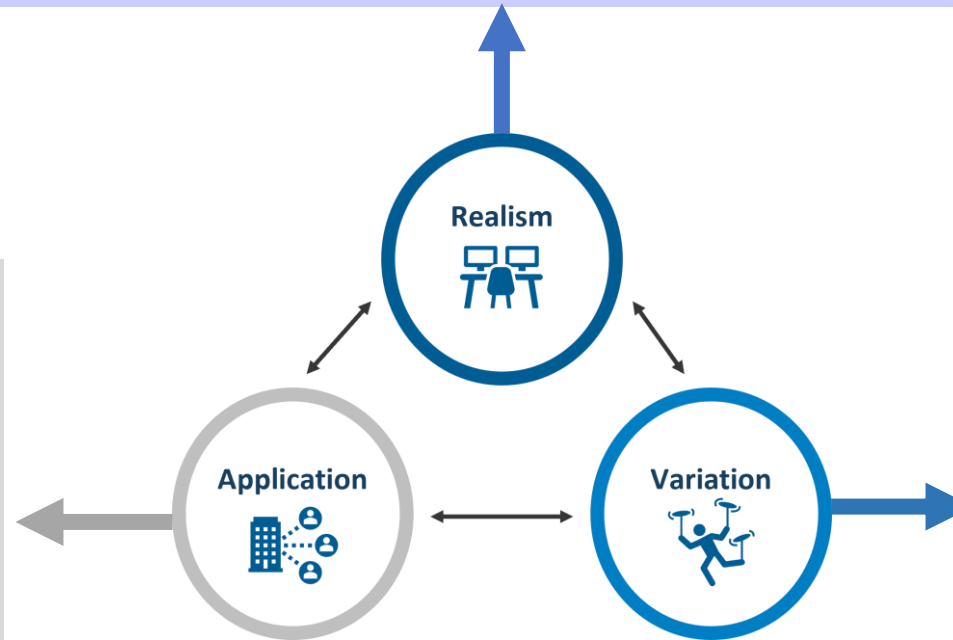
Dimensions & Sub-Dimensions		KN	SK	RESP
CLINICAL PRACTICE	Clinical Management	Demonstrate an understanding of management of clinical problems in healthcare	Apply appropriate clinical skills in the management of patient care	Demonstrate expected responsibilities in the management of patient care using the highest standards of clinical practices
	Shadow House Officer Training Schedule (SHOTS)	<p>Apply clinical sciences in patient management</p> <p>Interpret clinical investigation for patient management</p>	<p>Perform clinical examinations and procedures in relation to the patient management</p> <p>Manage student's patient management record for patient care</p>	<p>Ensure patient safety in clinical management</p> <p>Collaborate with other health care professional in clinical management</p>

Authentic Assessment

- ✓ A junior doctor must undergo 2 years of internship at tertiary hospitals
- ✓ Medical documentation is crucial
- ✓ Tight, heavy ward work and on-call schedule

Application of the medical knowledge & skills in patient care on:

- ✓ Diagnosis
- ✓ Treatment
- ✓ Medical intervention
- ✓ Ensuring patient safety



- Every patient has different health needs even with same diagnosis
- Importance of Intra and Inter-personal and Problem-solving skills to work in a team and reach shared decision making

Real-world applicability

*Utilize skills needed in future work
As junior doctors with tight heavy
work schedule*



Authentic Assessment

Authentic audience

- *Work in hospital setting with real patients and managing team (outside classroom with other people than the academics)*
- *Collaborate with other medical professional (nurses, therapist etc.)*



Hands-on activities

*Clinical work including
medical record
documentation*

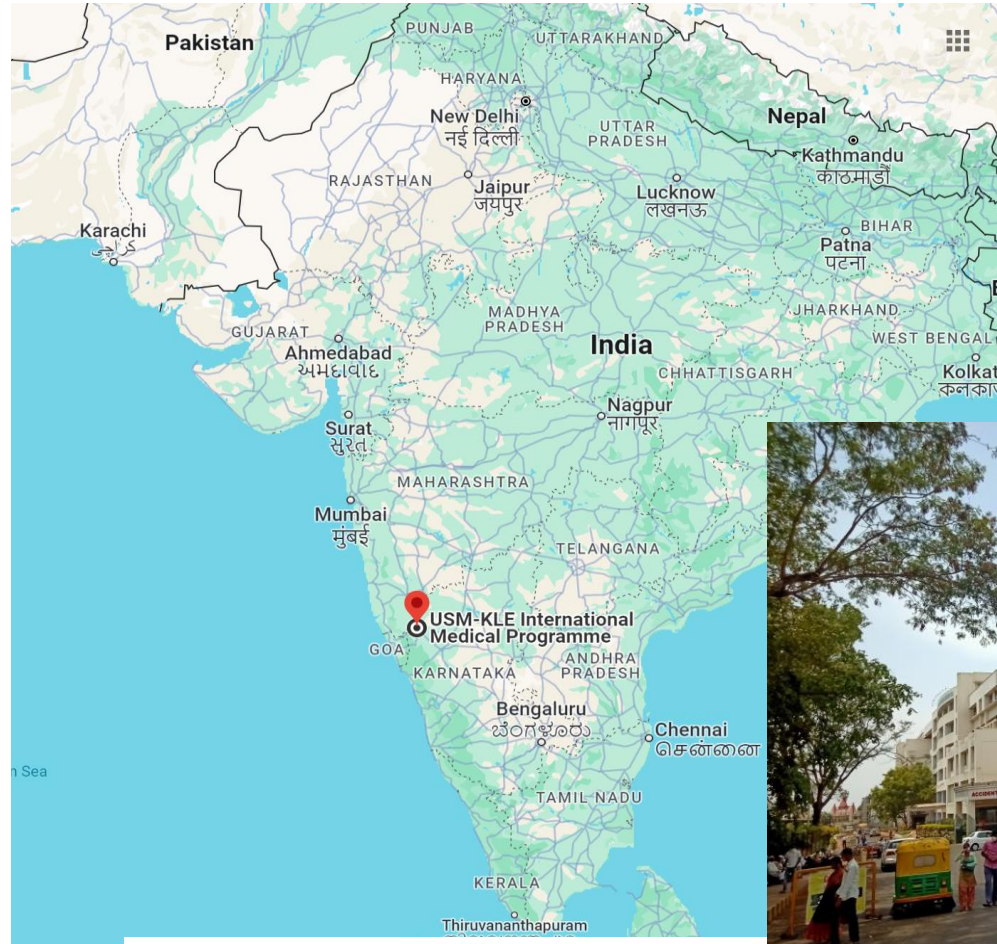


Stage at different setting

*Perform clinical work duties
based on simulated internship
schedule*



Implementation and modification at different institution



- ✓ Similar students' task and assessment
- ✓ Different number of SMR per course posting based on number of patients available (more number of patients)
- ✓ Language – students are trained to communicate in local language (Kanada) since pre-clinical years however may need local staff help including during assessment



KLE's Dr. Prabhakar Kore Hospital

Assessed Not only Knowledge via
written exam

But

Clinical skills in patient care

Resilience to heavy schedule

Teamwork & professionalism



Multiple assessment method


Case-based

Clinical long case

Clinical short case

*The interpersonal & communication skills acquired during experiential learning
helps students in their clinical works as well*

**People don't care how much you know
Until they know how much you care...**



**#03 Inspirational Example of
Authentic Assessment for
Ethics & Humanities**

Health Social Science Project

West Visayas State University – College of Medicine,
Philippines

THE WVSU, PHIL

The West Visayas State University – College of Medicine is a state university in the middle of the Philippine Archipelago fully funded by the government. We are tasked to produce primary care physicians ready to serve the communities in the Philippines especially the geologically disadvantaged areas like ethnic and distant island communities..



MODULE DESCRIPTION

This module will introduce first year medical students to the concepts and tools to analyze patient health problems in the context of social science factors. This will enable the future doctor to integrate health social science issues in patient care for more effective, appropriate and accessible health interventions.



LEARNING OUTCOMES

1. Evaluate the social, cultural, religious, gender, psychological, economic, political and other factors and issues that impact on the health and illness of the individual and the community.

2. Design health interventions for the individual patient and/other community considering social, cultural, religious, gender, psychological, economic, political and other factors and issues.

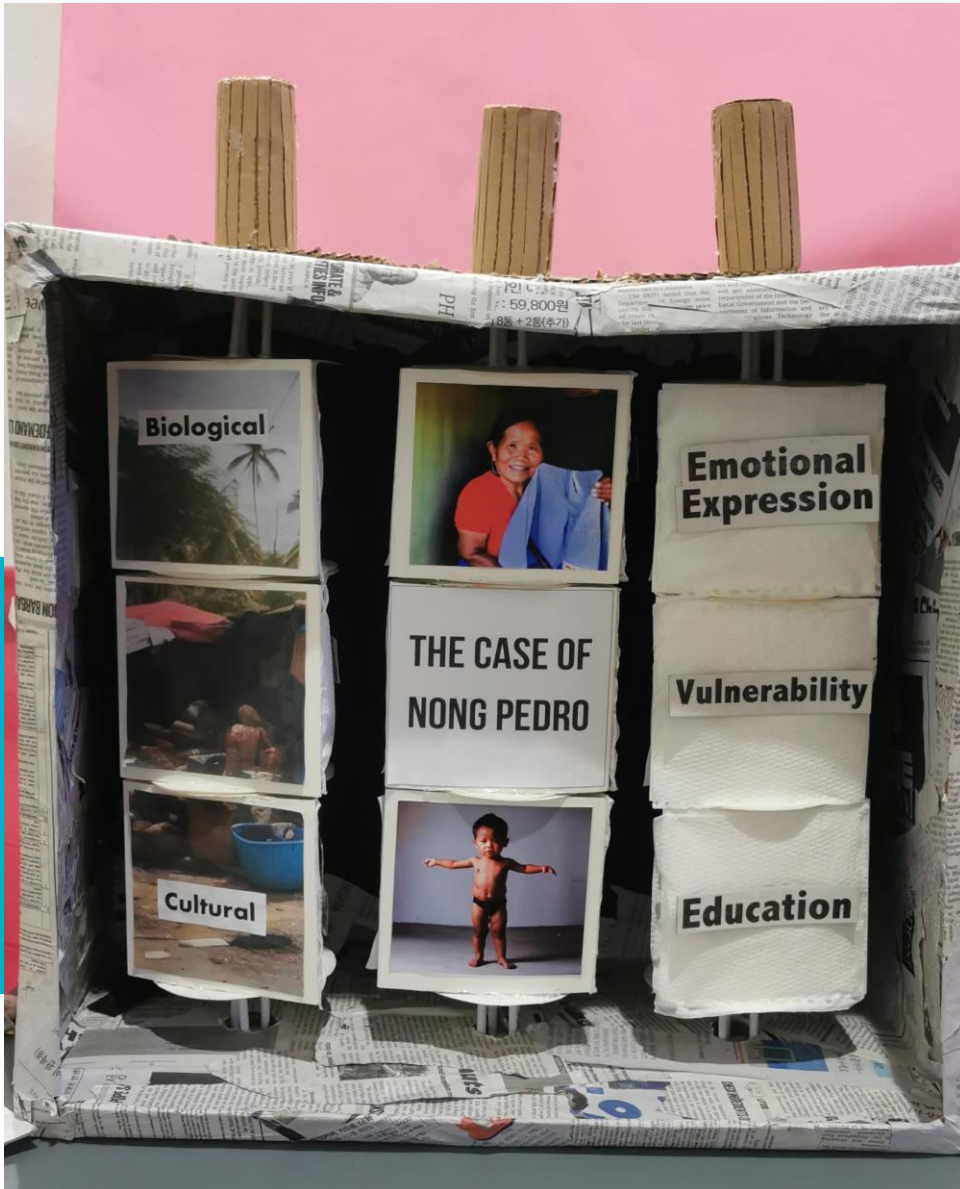
3. Evaluate individual/community health and illness in consideration of social, cultural, religious, gender, psychological, economic, political and other factors and issues.

4. Demonstrate human rights and ethical practice in patient care.

MODULE SCHEDULE



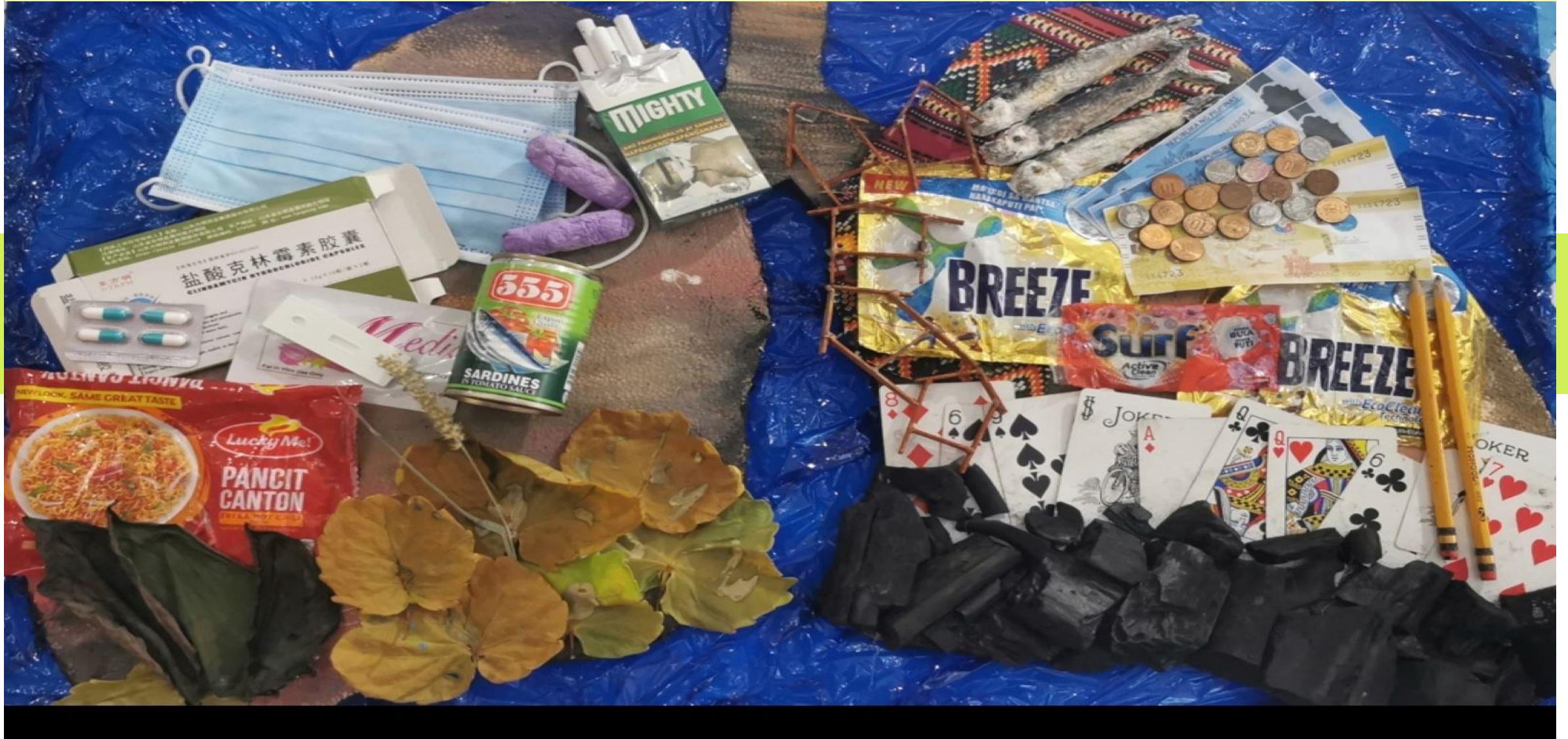
Wk	Date	Title	ACTIVITY	EXPECTED OUTPUT/ ASSESSMENT	Facilitator
1	Aug 8 (10-12 NN)	HSS in Context: The Need For Health Social Science	Introduce HSS : Case Analysis of the Case of Nong Pedro	SGD: Case Analysis of the Case of Nong Pedro	All facilitators & Co-facilitators
		supplement	Video on Tuberculosis		Canvas
2	Aug 15 (10- 12NN)	Gender Dimension of Health and Illness	SGD Presentation of Case Analysis & Artwork Case Analysis of	Artwork - individual Gender Analysis	All facilitators & Co-facilitators
		supplement	Study Guide Reference Article		Canvas
3	Aug 22 (1- 5 pm)	Human Rights and Ethics of Care	Presentation of Group Artworks Role Play	Group Artworks /Role Play	All facilitators & Co-facilitators
4	Sept 29 (1-5 PM)		Application of HSS Perspective & Eliciting Commitment identification of “enabling” & “restraining” factors in the application of HSS	Discussion of Recommendations on Prepetition, Treatment & Rehabilitation of Nong Pedro and his family; Force Field analysis- Synthesis and Assessment	All facilitators & Co-facilitators



Is there a link between Nong Pedro's illness (which is an example of an individual health problem) and the socio-economic, political and cultural problems of the country?

- **ECONOMIC**
 - Globalization
 - Trade liberalization
 - Environmental effects – degradation,
- **POLITICAL**
 - Land reform
 - Governance – local and national
 - ASEAN integration
 - Corruption
- **SOCIAL**
 - Poverty
 - Urbanization
 - **CULTURAL**

This ARTWORK SHOWS THE BURDEN OF DISEASE AND DETERMINANTS OF HEALTH IN THE HEALING OF NONG PEDRO



DIMENSIONS OF HEALTH



ETHICS

Practice ethical principles, recognize ethical dilemmas and report ethical concerns.

HUMANITIES

Practice humanistic principles in healthcare practices.

DIVERSITY

Advocate for equitable and inclusive healthcare practices.



ASSESSMENT

CASE ANALYSIS OF NONG PEDRO

**GROUP & INDIVIDUAL ARTWORK
NEED TO DEFEND IN A PRESENTATION**

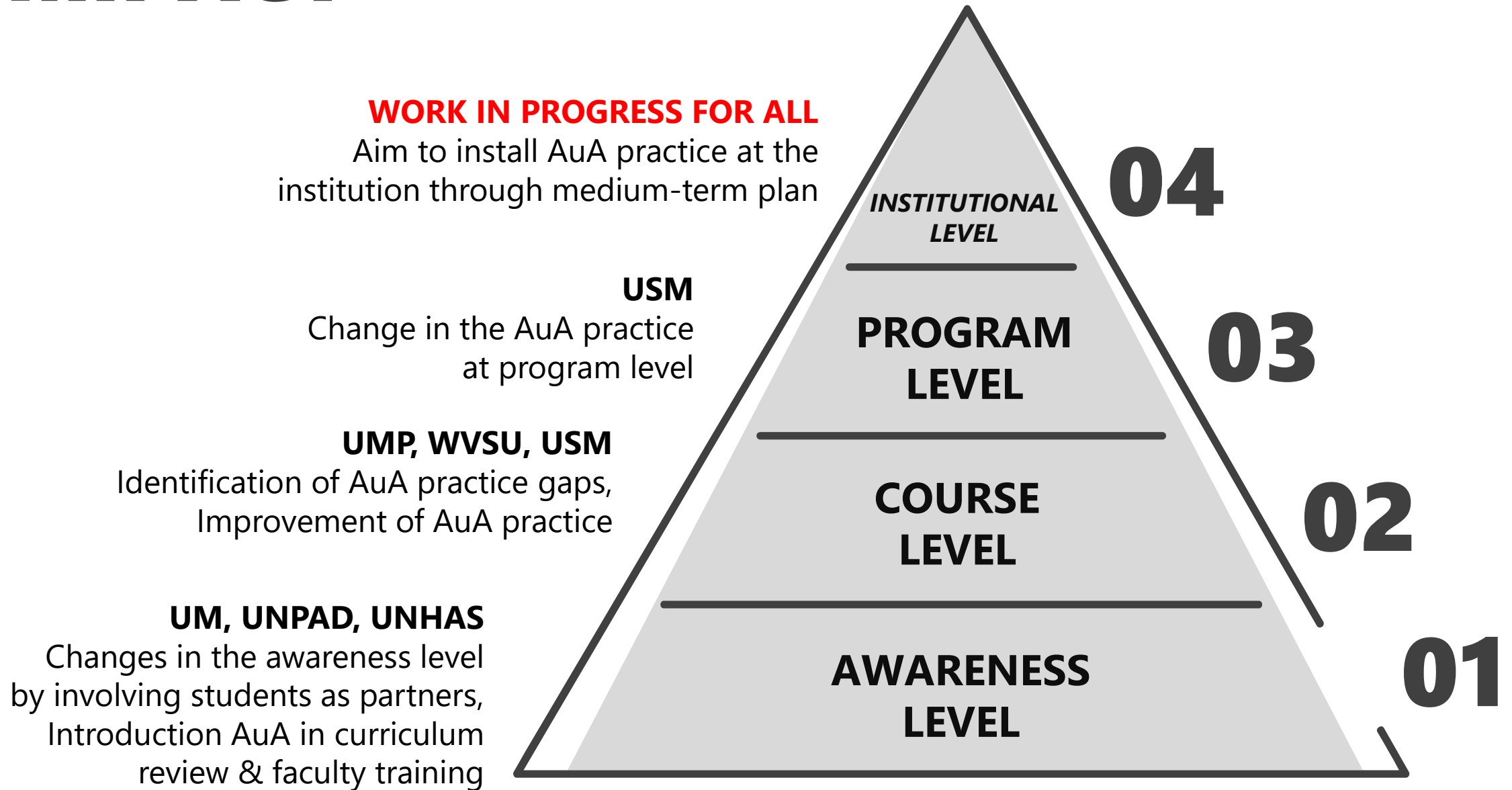
**FORCE FIELD ANALYSIS & SYNTHESIS
SMALL GROUP DISCUSSION RUBRIX**



Impact of Implementation of Authentic Assessment

- The implementation of authentic assessment of internationally comparable learning outcomes in degree programs is progressing through multiple levels of impact.
- At Level 1 (Awareness), universities like UM, UNPAD, and UNHAS are witnessing changes in awareness by actively involving students as partners and introducing authentic assessment (AuA) during curriculum reviews and faculty training sessions.
- Moving to Level 2 (Course), institutions like UMP, WVSU, and USM are identifying gaps in AuA practices within specific courses and working towards improving these practices to ensure more effective assessment methods.
- At Level 3 (Program), USM is leading the way with changes in AuA practices at the program level, aiming to align assessment methods with internationally comparable standards.
- Finally, at Level 4 (Institutional), all institutions are in the process of developing medium-term plans to institutionalize AuA practices across the entire organization, reflecting a collective commitment to enhancing the quality of education through authentic assessment methods.

IMPACT



TAKE HOME MESSAGES

REAL-LIFE CONTEXT

Authentic assessment is about assessing learning outcomes in the real-life context

#01

AUTHENTIC ASSESSMENT PRACTICES

Evaluate current assessment practices for alignment with the authentic assessment principles and authentic assessment of learning outcomes.

#02

AUTHENTIC ASSESSMENT IMPLEMENTATION

Engage different stakeholders in coordinated continuous efforts for gradual/full implementation of authentic assessment at the local and global level

#03

INSIGHTS

This project seeks to improve educational outcomes by fostering a culture of competency-based learning, implementing authentic assessment practices, and effectively managing student workload. By integrating these elements, the project aims to enhance student engagement, promote deeper learning, and better prepare students for success in their academic and professional endeavors.

