

Syllabus For PhD In Health Professionals Education

Teaching and Learning

Sub category of Module	Topics to be covered
1.1 History	History of Medical Education
1.2 Teaching learning Principles	a) Teaching and Learning introduction b) Levels of learning c) Principles of learning d) Barriers of learning
1.3 Role of teacher	a) Dimensions b) competencies
1.4 Types of Learning	a) Cognitive learning b) Skill of psychomotor type of learning c) Affective learning d) Verbal learning
1.5 Theories of Learning	a) Conditioning theories b) Theory of connectionism (Thorndike) c) Field theory d) Learning models e) Behavioral theory of learning (Behaviorism) f) Cognitive theory of learning (Cognitivism) g) Constructive theory of learning (Constructivism)

1.6 Memory	a) Introduction to memory – Definition and process b) Memory system – Sensory, short and long term c) Models of memory d) Memory retrieval
1.7 Principles of adult learning	a) Definition of adult learning b) Characteristics of adult learners c) Adult learning principles in planning learning experiences
1.8 Principles of Skill learning	a) Concept and importance of metacognition b) Principles of skill learning c) Understanding learners' need d) Developing plan of learning e) Implementing plan of learning f) Mastery learning model for skill learning g) Monitoring of progress of learning
1.9 Concept of integrated teaching	a) Need of integrated teaching. b) Origin of integrated teaching c) Implementation of integrated teaching d) Harden ladder of curriculum
1.10	a) Need of self directed learning. b) Origins of self - directed learning

Concept of self directed learning	c) Skills of self – directed learning d) Implementing and managing self - directed learning
1.11 Multi faceted approach to teaching learning	a) Operational learning model and learning matrix b) Computer assisted instructions (CAI) in clinical education c)Clinical decision-making d)Clinical competence e)Developing research attitude
1.12 Teaching in clinical environment	a) concept of clinical teaching b) challenges of clinical teaching c) models of clinical teaching
1.13 Modes of teaching	a) Expository b) Exploratory c) Simulation d) Self directed e) Reflective
1.14 Contextual teaching and learning	a) preparing and supporting high quality teachers b) concept of inquiry based learning and service based learning c) educational rationale of new teaching learning methodologies
1.15 Teaching-Learning Quality Process Review (TLQPR)	a) Quality assurance and accountability b)Accreditation and assessment c) Methods of TLQPR d) TLQPR dimensions

Instructional Methodology

Sub category of Module	Topics to be covered
2.1. Overview of Teaching and Learning Methods	a) Range of teaching learning methods b) Educational effectiveness of teaching learning methods c) Organization of chapters
2.2 Classification of Teaching Learning Methods	a) Control based classification b) Group size based classification c) Description of different methods
2.3 Instructional aids	a) Classification of TL Medias b) Limitations of oral communication c)Non-projected Visual Aids d) Projected Visual Aids e) Power Point Presentation
2.4. Large Group	a)Concept of Lecture

Method	<ul style="list-style-type: none"> b) Components c) Advantages d) Concerns and Limitations e) Principles of effective Lecture Presentations f) Methods of making lecture Interactive
2.5. Questions and Questioning techniques	<ul style="list-style-type: none"> a) Types of questions b) Dealing with students wrong responses c) Use of Silence
2.6. Small group Method	<ul style="list-style-type: none"> a) Concept of small group b) Types of group c) Life Cycle of a group d) Challenges of Small group e) Advantages f) Role and Responsibilities of Tutor in small group
2.7. Case based Teaching	<ul style="list-style-type: none"> a) Definition and Educational Rationale c) Concerns of case based Teaching d) Case Selection and Preparing the case for selection
2.8. Role plays	<ul style="list-style-type: none"> a) Advantages and applications b) Implementation considerations c) The Process d) Examples of Scripts for Role play: Counseling Focused e) Examples of Scripts for Role Play: Clinical Skill Practices
2.9. Clinical Teaching	<ul style="list-style-type: none"> a) Characteristics of Clinical Teaching b) Precepting in the context of Clinical teaching c) Determining the learner's Need d) Knowledge base for clinical teaching
2.10. Delivery of clinical teaching	<ul style="list-style-type: none"> a) Models of delivery of clinical teaching b) Teaching clinical reasoning Process c) Common Mistakes During clinical teaching
2.11 Problem Based Learning(PBL)	<ul style="list-style-type: none"> a) Definition and Historical overview b) Educational rationale of PBL c) Objectives and outcomes of PBL
<ul style="list-style-type: none"> • Concepts and Rationale 	
2.12. PBL Process	<ul style="list-style-type: none"> a) Writing a case scenario b) Setting the pace and tone of new group c) PBL sessions
2.13. The tutor and case writer	<p>The tutor's role and responsibilities</p> <ul style="list-style-type: none"> a) Practical skills b) The PBL case writer

2.14. Assessment in PBL	<ul style="list-style-type: none"> a) Goals of assessment of PBL b) Assessment during tutorial c) Assessing process of PBL – Triple jump
2.15. Implementation of PBL	<ul style="list-style-type: none"> a) PBL in new Medical Schools b) PBL in exiting Medical Schools c) PBL in Asian Medical Schools: Issues, Challenges, Options and More research
2.16 E-learning	<ul style="list-style-type: none"> a) What is E-learning? And E-learning in Learner-Centered Learning Models b) Design Considerations in E-learning c) Learning Objects in E-learning Models
2.17 Integrated Teaching	<ul style="list-style-type: none"> a) Process of module development b) Implementation of Integrated teaching through module c) Benefits and draw backs of modular learning
2.18. Innovative teaching , learning method	<ul style="list-style-type: none"> a) Team Based Learning (TBL) b) Modified PBL c) Early Clinical Exposure
2.19. OMP	<ul style="list-style-type: none"> a) Principle of OMP b) Five micro skills observed during OMP c) Limitations of OMP
2.20. Microteaching	<ul style="list-style-type: none"> a) Principles of Microteaching b) Methodology c) Advantages of Microteaching d) How to plan e) Various skill practiced in microteaching
2.21. Providing effective feedback	<ul style="list-style-type: none"> a) Educational Rationale b) Distinguishing Feedback from Praise and Criticism c) Nature of effective feedback d) Feedback in group setting

Assessment

Sub category of Module	Topics to be covered
3.1 Concept of Assessment	<ul style="list-style-type: none"> a) Concept of Assessment and Evaluation b) Difference between assessment and evaluation
3.2. Purpose of Assessment	<ul style="list-style-type: none"> a) Understand why to assess, what to assess and how to assess

	<ul style="list-style-type: none"> b) Know the stakeholders in assessment (Medical students, Medical Teachers, Institution, Professional bodies) c) Value of Need Assessment d) Directions in students' Assessment
3.3. Types of students Assessment	<ul style="list-style-type: none"> a). Formative assessment b). Summative assessment c). Continuous Internal assessment
3.4 Levels of assessment	<p style="text-align: center;">Millers pyramid</p> <ul style="list-style-type: none"> a) Level - 1 b) Level-2 c) Level - 3
3.5 Characteristic of Assessment Instruments	<ul style="list-style-type: none"> a) Validity b) Reliability c) Objectivity d) Practicability e) Value f) Errors in Tests Items
3.6. Road map to students assessment	<ul style="list-style-type: none"> a) Factor One: Education Objectives or Domains b) Factor Two: Level of Knowledge c) Factor Three: Useful as Formative or Summative Assessment d) Factor Four: Validity of Instrument e) Factor Five: Reliability of the Instrument f) Factor Six: Single Instrument versus
3.7 Assessment instruments a. Written examination	<ul style="list-style-type: none"> a). Multiple choice questions b). Short answer questions c). Structured essay questions
b. Assessment by supervising clinics	<ul style="list-style-type: none"> a) Global rating with comments at the end of rotation b) Mini – CEX c) Clinical simulation d) Standardized patients e) Objectively structured clinical examination (OSCE) f) Objectively structured practical examination (OSPE)

c. Assessment for higher levels	<ul style="list-style-type: none"> a. Oral examination b. Multisource “360 degree” assessment c. Peer assessment d. Patient assessment e. 8. Self assessment f. 9. Portfolios
3.8. Multiple Choice Question	<ul style="list-style-type: none"> a) Road Map of MCQ b) Components of MCQ c) Types of MCQ d) Examples of MCQ e) Advantages f) Limitations
3.09. Test and Item Analysis	<ul style="list-style-type: none"> 1. Importance of test and Item analysis 2. Difficulty index and Discrimination index 3. Distracter effectiveness
3.10. Short answer question	<ul style="list-style-type: none"> 1. Road map of SAQ 2. Advantages of SAQ 3. Disadvantage of SAQ 4. Types of SAQ 5. How to prepare SAQ 6. Evaluating SAQ
3.11. Essay Questions and Variations	<ul style="list-style-type: none"> 1. Road map of Essay 2. Advantages 3. Challenges and Limitations 4. Basic Categories of Essay Questions 5. Modified Essay Questions (MEQ) 6. PMP
3.12. Question Banking	<ul style="list-style-type: none"> 1. Concept 2. Steps in preparing question bank
3.13. Question paper setting	<ul style="list-style-type: none"> 1. Need for a systematic approach 2. steps involved 3. Item card
3.14 Assessment in Clinical Competence	<ul style="list-style-type: none"> a) Concept of clinical Competency & assessing clinical competence b) Criteria based Assessment c) Norm based assessment
3.15. Oral Examinations	<ul style="list-style-type: none"> a) Advantages b) Limitations c) Improving the Validity and Reliability of Oral Examinations (OSVV)

3.16. Assessment in PBL	<ul style="list-style-type: none"> a) Goals of assessment of PBL b) Assessment during tutorial c) Assessing process of PBL – Triple jump
3.17. Assessment of Non – scholastic Abilities	<ul style="list-style-type: none"> a) Importance of assessing Non scholastic abilities b) Various Non scholastic abilities c) Tools of assessing Non scholastic abilities
3.18. Teacher Evaluation	<ul style="list-style-type: none"> a) Need b) Peer review c) Self Evaluation d) Students feedback
3.20. From Marks to Grades	<ul style="list-style-type: none"> a) Define grads and types of grading b) Differentiate between relative and absolute grading c) Advantages of using grades in place of marks

Curriculum Development

Sub category of Module	Topics to be covered
4.1. Concept of curriculum	<ul style="list-style-type: none"> a) What is Curriculum b) Levels of curriculum <ul style="list-style-type: none"> • Societal • Institutional • Instructional
4.2. Types and levels of curriculum	<ul style="list-style-type: none"> a) Various Types of curriculum
4.3. Kern's Model of Six Step approach	<ul style="list-style-type: none"> a) Introduction b) Steps c) Dynamic cycle
4.4. General Needs Assessment	<ul style="list-style-type: none"> a) Gap analysis
4.5. Needs Assessment of targeted learners	<ul style="list-style-type: none"> a) Needs Assessment of targeted learners
4.6. Educational objectives Qualities of Educational objectives	<ul style="list-style-type: none"> a) Definition b) Need c) Types d) Qualities of Educational objectives
4.7. Specific learning objectives	<ul style="list-style-type: none"> a) Specific learning objectives
4.8. Taxonomy of	<ul style="list-style-type: none"> a) Taxonomy of Educational objectives

Educational objectives	
4.9. Educational strategies	a) Teaching learning Methods b) Teaching Learning Medias
4.10. Implementation of Educational strategies	Implementation of Educational strategies
4.11. Evaluation of Curriculum	a) Importance, b) Methods Questionnaire, survey, c) Kirkpatrick model of evaluation long term evaluation
4.12. Competency based curriculum	Concept of Competency based curriculum
4.13 Outcome based curriculum	Concept of Outcome based curriculum
4.13. Core curriculum	Core curriculum
4.14. SPICES Model	SPICES Model
4.15. Karr Model	Zais Model
4.16. Tyler's Model	Tyler's Model
4.17. CIPP Model of curriculum evaluation	CIPP Model of curriculum evaluation
4.18 Curriculum planning and reforms	Steps in planning of curriculum changes
4.19 Budget for curriculum	Planning of budgetary provision for curriculum
4.20 Change Management for curriculum Dynamics	Change Management for curriculum Dynamics

Program Evaluation

Sub category of Module	Topics to be covered
5.1. Purpose and scope of program evaluation	a) Purpose / Need of program evaluation b) Reporting requirements c) Advocacy d) Difference between evaluation and research e) use of evaluation f) Constraints and challenges in program evaluation g) Internal versus external program evaluators h) Managing the evaluators/ Choosing evaluators i) Understanding community leadership, evaluators and funders (what are their

	interest)
5.2. Evaluation and program management approach	<ul style="list-style-type: none"> a) Monitoring b) Difference between monitoring and evaluation c) Framework for program evaluation based on program logic model d) designing a program logic model
5.3. Levels of evaluation categories (Kirkpatrick model)	<ul style="list-style-type: none"> a) Level 1: Reaction b) Level 2: Learning c) Level 3: Behavior d) Level 4: Result e) Level 5: Return of investment of the training
5.4. Types of program evaluation (CIPP model)	<ul style="list-style-type: none"> a) context evaluation/formative evaluation b) Implementation evaluation/ process evaluation <ul style="list-style-type: none"> • Engage stakeholders • Stakeholder analysis and Stakeholder matrix c) Outcome monitoring/outcome evaluation d) Impact evaluation/ impact assessment, and effectiveness evaluation
5.5. Tools / instruments for evaluation	<ul style="list-style-type: none"> a) Indicators b) Criteria for the good evaluation instrument / tools c) Gantt chart
5.6 Standards of program evaluation	<ul style="list-style-type: none"> a) Standards for good program evaluation b) Reliability, validity and sensitivity in program evaluation
5.7. Data collection methods for evaluation	<ul style="list-style-type: none"> a). Qualitative methods b). Quantitative method c). Mix methods d). Advantages and limitation of each methods e). Choice of appropriate methodology for specific type and level evaluation
5.8. Disseminating evaluation information	<ul style="list-style-type: none"> a) key elements of evaluation report b) Purpose / objectives dissemination evaluation reports (why to disseminate?) c) Identifying stakeholders for dissemination (whom to disseminate?) d) Writing a evaluation report (How to Disseminate evaluation information)

5.9 Evaluation of project	<ul style="list-style-type: none"> a) Developing the evaluation plan for any project b) PERT Program evaluation and Review Technique
5.10. Evaluation of Educational program and Quality assurance in Educational Programs	<ul style="list-style-type: none"> a) Approaches to Educational Evaluation b) Responsive Evaluation c) Analysis of quality in higher educational program d) Process and components of quality assurance in educational program e) Different models of quality assurance in education.
5.11. Use of evaluation findings	Use of Evaluation findings (evidence) for planning future program (s)

Educational Research

Sub category of Module	Topics to be covered
6.1. Introduction to Educational Research	<ul style="list-style-type: none"> 1. Objectives of Education Research 2. Scientific Methods
6.2. Research Ethics	<ul style="list-style-type: none"> 1. Ethical guidelines for Educational Research 2. Informed Consent 3. Institutional Review Board / Institutional Ethics Committee
6.3. Study designs	<ul style="list-style-type: none"> 1. Hierarchy of study design 2. Quasi experimental studies
6.4. Study Designs	<ul style="list-style-type: none"> 1. Descriptive studies 2. Observational studies 3. Experimental studies
6.5. Qualitative, Quantitative and Mixed Research	<ul style="list-style-type: none"> 1. Quantitative Research Methods 2. Qualitative Research Methods 3. Mixed Research Methods 4. Quantitative data analysis 5. Qualitative data analysis
6.6. Problem Identification and Hypothesis Formation	<ul style="list-style-type: none"> 1. Development of research idea 2. Literature search 3. Problem identification and problem definition 4. Formulating Research Question 5. Formulating Hypotheses 6. How to write a Research Proposal
6.7. Standardized Measurement and Assessment	<ul style="list-style-type: none"> 1. Scales of Measurement 2. Reliability 3. Validity

6.8. Methods of Data Collection	<ol style="list-style-type: none"> 1. Survey 2. Interviews 3. Focus group discussion 4. Observation 5. Existing or secondary data
6.9. Sampling	<ol style="list-style-type: none"> 1. Random (Probability) sampling 2. Non-random (Non-probability) sampling 3. Sample size 4. Sampling in Qualitative research 5. Power of study & Errors
6.10. Validity of research results	<ol style="list-style-type: none"> 1. Research validity in quantitative research 2. Research validity in qualitative research 3. Threats to validity (Bias) 4. Confounders 5. Causation
6.11. Descriptive Statistics	<ol style="list-style-type: none"> 1. Frequency distributions and Graphical representation of data 2. Measures of Central Tendency 3. Measures of Variability
6.12. Inferential Statistics	<ol style="list-style-type: none"> 1. Hypothesis testing 2. Parametric tests 3. Non parametric tests 4. Determining association between variables
6.13	How to write a Project Proposal