

Course Description

MEDD6467 Teaching and Learning in Science

Course description		
<p>This course gives an overview of theories and research on the teaching and learning of science. It begins with an overview of students' common difficulties in learning science. Findings in children's understanding of science over the school years will be considered in light of a range of learning theories. Issues relating to approaches to teaching science including use of analogies, diagrams, modelling and mental visualisation will be discussed. In addition, examples of investigation of teachers' pedagogical content knowledge, beliefs, professional noticing, assessment related to the teaching and learning of science will be examined.</p>		
Course learning outcomes (CLOs)		Aligned programme learning outcomes (PLOs)
1. To review the state of knowledge about learning science		PLO 1
2. To relate the research to recent educational reforms, especially learning to learn, assessment for learning, and emphasis on investigative approaches such as project-based learning		PLO 2
3. To examine how to create pedagogical approaches consistent with (1) and (2)		PLO 3
Course assessment methods		
Assessment method	Weighting (%)	Aligned course learning outcome(s)
In-class/ Moodle Participation	10	CLOs 2, 3
Workshop and Presentation	40	CLOs 1, 2, 3
Reflective Essay/ Literature Review	50	CLOs 1, 2, 3
Course content and topics		
<p>Introduction and Science Education Misconceptions and Learning Theories Conceptual Change I/II Practical work and Classroom Talk Inquiry Learning and Nature of Science</p>		
Required / recommended readings and online materials		
To be provide in course outline		
Other additional course information		
Nil		