UNIVERSITI TEKNOLOGI MARA

SCE423: INTRODUCTORY SCIENCE

Course Name (English)	INTRODUCTORY SCIENCE APPROVED
Course Code	SCE423
MQF Credit	3
Course Description	This course explores basic scientific concepts and terminologies in physics, chemistry and biology. Students will engage in experiential learning through practical applications of science concepts in daily lives. It develops knowledge and understanding of scientific inquiry skills, as well as the ability to analyze information and solve problems. In addition, science readings and exposure to scientific activities will further assist students in the expansion of their scientific knowledge.
Transferable Skills	Scientific inquiry skills Analyze information Problem solving
Teaching Methodologies	Lectures, Blended Learning, Demonstrations, Simulation Activity, Discussion, Presentation
CLO	CLO1 Explain basic scientific concepts and terminologies CLO2 Demonstrate scientific inquiry skills through scientific hands-on activities CLO3 Analyze scientific issues affecting everyday lives
Pre-Requisite Courses	No course recommendations

Topics
1. A. Nature of Science (NOS) 1.1) 1) The scientific world view 1.2) 2) Scientific inquiry 1.3) 3) The scientific enterprise
2. B. Scientific Skills 2.1) 1) Science Process Skill 2.2) 2) Manipulative Skills 2.3) 3) Thinking Skills
3. C. Introduction to Chemistry Atomic theory: How to read the periodic table 3.1) 1) The states of matter 3.2) 2) Solutions, acids, bases and salts 3.3) 3) Everyday applications of chemistry
4. D. Introduction to Physics 4.1) 1) Forces and Motion 4.2) 2) Work and simple machines 4.3) 3) Forces and Pressure 4.4) 4) Heat
5. E. Introduction to Biology 5.1) 1) Cell 5.2) 2) Biodiversity 5.3) 3) Food chain and food webs 5.4) 4) Human system
6. F. Exploring Earth and Space Sciences 6.1) 1) The solar system 6.2) 2) Understanding the Earth 6.3) 3) Climate and Climate Change

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Group Project	Lab simulation development. Students will work in pairs.	30%	CLO2
Presentation	Weekly presentation of a topic assigned by the facilitator. Students will work in group of five	30%	CLO3
Test	Test 1 will cover chapter A, B, C. Test 2 will cover chapter D, E, F.	40%	CLO1

Reading List

Recommended Text

- **National Research Council 2015, *Guide to Implementing the Next Generation Science Standards*, The National Academies Press Washington DC [ISBN: 10.17226/1880]**
- **Arihant Experts 2014, *Encyclopedia of General Science for General Competitions*, Amazon USA USA**

Article/Paper List: This Course does not have any article/paper resources

Other References: This Course does not have any other resources