

Demonstration School of Suan Sunandha Rajabhat University, English Program
M.4/1 and M.4/2 Semester 2, Academic Year 2022

Course Focus: Biological Science 2 is an academic requirement for both Math-Science and Math-English majors studying at Mathayom 4 (Secondary Grade 10) for semester 2.

Students are geared to continue acquiring the basic understanding of concepts and details of covered topics through lectures, exercises, and interactive discussions during the class session. Student preparation and review of reading material prior and post class session is advised in order to keep up with the pace of instruction.

NOTE: Timely class attendance is taken seriously. Tardy or absent students should follow up on missed work promptly.

	Score Assessment	Points	Total Points
1	Class Attendance	10	60
2	Class Manners and Participation <ul style="list-style-type: none">• Attention/responsiveness• Inappropriate conduct such as playing on mobile phones, tablets, etc... will result in point(s) deduction. Note: Mobile phones will be permitted for searches in accordance to specific assignment/class activities <u>once announced at specific timepoint(s)</u> .		
3	Presentation in groups (individual scores for each student) Group Session – problem solving		
4	Extra-curriculum Activities <ul style="list-style-type: none">• Lab with printed scientific report		
5	Pop Quiz		
6	Midterm	20	40
7	Final	20	
8	Extra Credit will be considered based on quality of work	0-10	
	Passing Score	50 %	

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Semester 2: (SCI 30102) 1.0 Credit Grade 10 (M.4) Biological Science 2		
Topics Covered		Details
1	Heredity	<ul style="list-style-type: none"> • Mendel's Principle of Heredity • Gene and Chromosome • Central Dogma and Gene Express • DNA and Molecular Function • Mutation and Diversity • Genetic and DNA Technology
2	Evolution	<ul style="list-style-type: none"> • Biodiversity • Taxonomy • Darwin and The Origin of Species
	Midterm Exam	Cover up to topics 1-2
3	Plant Growth and Survival	<ul style="list-style-type: none"> • General Factors in Plant Growth and Survival • Structure and Function of Root, Stem and Leaf • Transpiration in Plant • Transport System • Essential Organic and Inorganic Molecules for Plant Growth • Importance of Photosynthesis • Plant Reproduction
4	Plant Stimulus and Response	<ul style="list-style-type: none"> • Plant Hormones • Plant Response to Stimulus • External Stimulus Inducing Plant Development
	Final Exam	Cover up to topics 3-4

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Reading and Study Material:

(1) Campbell PowerPoint Lectures and uploads given in conjunction with textbooks

(2) Textbooks

- 2.1. New Century Elective Biology: Secondary 4, 5, and 6.
Hodder Education Singapore, 2019 Edition.
Beverly Tay, Loo Kwok Wai, Ong Bee Hoo, and Janlin Chan

- 2.2. Biology: A Global Approach, Global Edition, 10/E
Neil A. Campbell, University of California, Riverside
Jane B. Reece, Palo Alto, California
Lisa Urry
Michael L Cain, Bowdoin College, Brunswick, Maine
Steven A Wasserman, University of California, San Diego
Peter V Minorsky, Mercy College, Dobbs Ferry, New York
Robert B Jackson, Duke University, Durham, North Carolina
or equivalent version.

- 2.3. Extra reading from sheets to be given.