

Course Syllabus
MBMG 601
Academic year 2022

Course ID and Name: MBMG601: Current Topics in Molecular Biology

Course coordinator: Asst. Prof. Dr.Duangrudee Tanramluk

Instructors:

1. Professor Dr.Duncan Smith
2. Associate Professor Dr.Apinunt Udomkit
3. Associate Professor Dr.Chartchai Krittanai
4. Associate Professor Dr.Kanokporn Triwitayakorn
5. Associate Professor Dr.Chalernporn Ongvarrasopone
6. Associate Professor Dr.Sarin Chimnaronk
7. Assistant Professor Dr.Duangrudee Tanramluk
8. Assistant Professor Dr.Chalongrat Noree
9. Assistant Professor Dr.Poochit Nonejuie

Credits: 1

Curriculum: Master of Science Program in Molecular Genetics and Genetic Engineering
(required course)

Doctor of Philosophy Program in Molecular Genetics and Genetic
Engineering (required course for students from B.Sc.)

Teaching methods: Online

Semester offering: First semester

Pre-requisites: None

Expected learning outcomes:

After finishing the course, students should be able to:

- 1) Demonstrate a detailed understanding of the principles of research ethics
- 2) Analyze scientific literature based on molecular biology principles and theories
- 3) Summarize scientific literature in an interactive manner.

Alignment of teaching and assessment methods to course learning outcome:

Course learning outcome	Pedagogical approach	Learning activities	Assessment methods
1. Demonstrate a detailed understanding of the principles of research ethics	Combination of active learning, project-based learning, and mastery learning	(1) Lecture (2) Case studies with learned experience (3) Group assignment and presentation (4) Emphasis on scientific integrity and misconduct	(1) Reports (2) Presentations (3) In-class interaction and participation
2. Analyze scientific literature based on molecular biology principles and theories		(1) Lecture (2) Brainstorming (3) Group discussion (4) Individual assignment	(1) Reports/assignment (2) Presentation (3) Discussion participation (4) Q & A
3. Summarize scientific literature in an interactive manner		(1) Group activities during class	(1) Presentation (2) In-class interaction and participation

Course description:

Interpretation, critical review and discussion of recent publications related to advanced knowledge and technology in molecular biology

Fulfillment of ELOs for AUNQA

ELO1 Integrate comprehensive knowledge in Molecular Biology and related disciplines to solve scientific research problems

ELO3 Present research findings in Molecular Biology to scientific community

ELO4 Demonstrate scientific integrity including ethical responsibilities and safety practices as appropriate

ELO5 Acquire professional and interpersonal skills for lifelong learning

Course schedule:

Unless specified otherwise, the course is on every Wednesday between 9.30 –11.30 am.

Week	Date	Week	Topic	Teaching Staff
1	5 October 2022*	1.00 – 1.30 pm*	Course Orientation	Duangrudee
1	5 October 2022*	1.30 – 3.30 pm*	Research Ethics	Apinunt
2	12 October 2022	9.30 –11.30 am	Paper Discussion & Presentation	Kanokporn
3	19 October 2022	9.30 –11.30 am	Paper Discussion & Presentation	Poochit
4	26 October 2022	9.30 –11.30 am	Paper Discussion & Presentation	Sarin
5	2 November 2022	9.30 –11.30 am	Paper Discussion & Presentation	Chalernporn
6	9 November 2022	9.30 –11.30 am	Paper Discussion & Presentation	Duncan
7	16 November 2022	9.30 –11.30 am	Paper Discussion & Presentation	Chalongrat
8	23 November 2022	9.30 –11.30 am	Paper Discussion & Presentation	Duangrudee
9	30 November 2022	9.30 –11.30 am	Paper Discussion & Presentation	Chartchai

* Unusual time

Student's achievement will be graded using symbols: A, B+, B, C+, C based on the distribution of students' scores from the whole course.

Paper Criteria

Published within 5 years

Date revised: 13 July 2022

Current Topics in Molecular Biology Rubrics

	Rating				Weight
	4	3	2	1	
PREPARATION					
QUIZ	100–80%	79–60%	59–40%	< 39%	
REPORT ASSIGNMENT					
Theme	Well organized, demonstrates logical sequencing and structure.	Well organized, but demonstrates illogical sequence or structure.	Weakly organized with no logical sequence or structure.	No organization, sequencing, or structure.	
Content	Clearly states aim and scope; concisely summarizes major points. Rationales are explained.	Aim and scope are stated adequately, major points are summarized. Rationale is stated but not explained.	Aim and scope are not stated. Major points are missing. Rationale is not mentioned. Reveal few knowledge on the subject.	Few points are mentioned as contents but without the line of reasoning.	
References	Information is cited properly and in acceptable format (e.g. Vancouver or EMBO).	Information is cited in a non-widely used format with minor errors.	Information is cited, but has major errors.	Information is not cited or is cited incorrectly.	
DISCUSSION					
Q & A	Question and answer(s) are good and clearly stated.	Question and answer(s) are average.	Question and answer(s) were not significant.	Question and answer(s) were irrelevant.	
PRESENTATION					
Content	Well organized and well presented	Good to average organization and presentation	Weak	Poor	
PERFORMANCE <90%>					
QUALITY OF INTERACTION/ PARTICIPATION <10%>	Highly engaged (10%)	Sufficiently engaged (7.5%)	Minimally engaged (5%)	Not engaged (2.5%)	
TOTAL					
From 100%					