

COURSE SYLLABUS

MD627 893, MD627 994 Seminar in Medical Microbiology [2(2-0-4)]

MD627 101 - 105 Peer Review in Medical Microbiology Research I-V [1(1-0-2)]

Responsibility: Department of Microbiology, Faculty of Medicine, Khon Kaen University

Period: Second semester, Academic year 2023

E-learning: <https://e-learning.kku.ac.th/course/view.php?id=85>

Course coordinators:

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Students: Graduate students in Precision Medical Microbiology Program, Faculty of Medicine, Khon Kaen University

Date & Time: Some weeks start at 9.30 AM. Please check on the last page.

	9.00-10.00	10.00-11.00	11.00-12.00	12.00-13.00	13.00-14.00	14.00-15.00	15.00-16.00
Mon							
Tue							
Wed		Seminar	Peer review				
Thu							
Fri							

Venue: Lecture Room #4 (Near the Pharmaceutical canteen), Faculty of Medicine, Khon Kaen University

Course description

MD627 994 Seminar in Medical Microbiology [2(2-0-4)]

Selecting topics, literature search and review, reading scientific reports with critical appraisal, presentation, and participation in discussion on research progress in biomedical science

MD627 101 Peer review in medical microbiology research I [1(1-0-2)]

Principles of good peer review, Research summary and presentation, Discussion on medical microbiology research, Improvements of thinking process, creativity, and questions to ask in medical microbiology research, Scientific communication with critical thinking

MD627 102 Peer review in medical microbiology research II [1(1-0-2)]

Experimental design for research, Research summary and presentation in written and oral communication, Discussion on medical microbiology research, Improvements of thinking process, creativity, and questions to ask in medical microbiology research, Scientific communication with critical thinking

MD627 103 Peer review in medical microbiology research III

Basic adjustment for better experimental design and findings, Research summary and presentation in written and oral communication, Discussion on medical microbiology research, Expressing the opinions and suggestions for own research and others, Improvements of thinking process, creativity and

MD627 104 Peer review in medical microbiology research IV [1(1-0-2)]

Experimental study design and research finding analysis, Analyzing the research problems, and planning for solution, Research summary and presentation in written and oral communication, Discussion on medical microbiology research, Expressing the opinions and suggestions for own research and others, Improvements of thinking process, creativity, and questions to ask in medical microbiology research, Scientific communication with critical thinking

MD627 105 Peer review in medical microbiology research V [1(1-0-2)]

Research evaluation, Manuscript writing for scientific research articles, Research summary and presentation in written and oral communication, Discussion on medical microbiology research, Expressing the opinions and suggestions for own research and others, Improvements of thinking process, creativity, and questions to ask in medical microbiology research, Scientific communication with critical thinking

Course learning outcomes (CLOs)

CLOs of SEMINAR

On completion of this course, the students will be able to

1. **Summarize and explain** knowledge and information from research literatures in Precision Med Micro field
2. **Understand and interpret** the analyzed data (big data, statistical data, bioinformatics) from studies used in seminar presentation
3. **Summarize and explain** concept and design of the studies and experiments from studies used in seminar presentation
4. **Demonstrate** life-long learning and information literacy through participation and literacy search
5. **Use** English for communication and present the topic in seminar presentation.
6. **Discuss and provide** criticisms and suggestions for his/her study topic and among classmate.
7. Demonstrate professional characteristics including time-control, punctuality, and academic honesty, class attendance
8. **Understand** of the novelty and impact of the study from the seminar presentation
9. **Demonstrate** the ethical behaviors such as citation for information sources

CLOs of PEER REVIEW

1. Students can **analyze, interpret, and summarize** thesis data for professional public presentation.
2. Students demonstrate **essential skills for presentation** with good literature review, problem-solving, systemic thinking, critical thinking, criticism, as well as creativity.
3. Students demonstrate **English language skills** for information reading, progress report writing, and oral presentation.
4. Students demonstrate **professional characteristics** including independent thinking, respect for diverse opinions, and scientific communication in class.

Course evaluation and assessment

1. Grading criteria for SEMINAR and PEER REVIEW

SEMINAR/PEER REVIEW for M.Sc. students	Grade
≥ 85%	A
≥ 80% to < 85%	B+
≥ 75% to < 80%	B
≥ 70% to < 75%	C+
≥ 65% to < 70%	C
SEMINAR/PEER REVIEW for Ph.D. students	Grade
≥ 90%	A
≥ 85% to < 90%	B+
≥ 80% to < 85%	B
≥ 75% to < 80%	C+
≥ 70% to < 75%	C

FOR SEMINAR and PEER REVIEW I, you will get grade A, B+, B, C+, or C in your transcript.

For PEER REVIEW II - V, you will get S (when your score ≥B) or U (when your score <B).

2. Course assessment and requirement

Score ratio of SEMINAR

- Present performance 90% (Please see the rubric scoring criteria.)
- Class participation 10% (10 questions = 10%)

Score ratio of PEER REVIEW

- Present performance 90% (Please see the rubric scoring criteria.)
- Class participation 8% (5 questions = 8%)
- E-learning 2%

Class attendance requirement

1. Students who want to postpone the presentation must ask permission from the course coordinators and can postpone only once for proper reason. Please inform the course coordinator 1 week before the presentation date.
2. Enrolled students who want to leave the class, please send the absence request in e-learning with the proper reason and advisor agreement. Students who **missed the class** for unexcused reasons and without informing the course coordinator **for more than 2 times**, the maximum grade will be received is **only B**.
3. Non-enrolled students who **missed the class** for unexcused reasons and without informing the course coordinator **for more than 2 times**, the special talk must be performed in the next semester of Seminar course.
4. Students who **join the class later than 10 minutes** after the beginning of the presentation will be **1 % subtracted** in each time.

3. Rubric scores of SEMINAR and PEER REVIEW

3.1 Rubric scores of SEMINAR

Criteria	5	4	3	2	1
1. Understanding and summarization of content from the selected studies (15%)	The presented content provide -correct information -Key information that are extracted -Well summarized information - clear conclusion	The presented content provide -correct information - clear conclusion	The presented content correct but conclusion is not clear or not supported by the presented content	Some of presented content are incorrect and conclusion is not clear	The presented content are mostly incorrect and no conclusion is provided.
2. Logical sequence and integration of the content among studies (10%)	-Good logical sequenced information - The content from ≥ 2 papers are well integrated in the same storyline	-Good logical sequenced information but the topic or content among studies are not aligned or integrated	-Although the content from each paper are well integrated, but non-logical sequence of information are shown	Although with the logical sequence of the content, unrelated studies are tied together	Poor sequenced information and unrelated studies are tied together
3. Ability to interpret the analyzed data (biostatistics, bioinformatics and/or big data) and research findings (10%)	-Correctly and clearly interpret all analyzed data -Be able to simplify the meaning of results	Most analyzed data were interpreted correctly but some information cannot simplify to understand easily	Some data were interpreted correctly, but still unclear	Most analyzed data were interpreted incorrectly	Incorrectly interpret in all analyzed data

Criteria	5	4	3	2	1
4. Ability to summarize the experiments and the concept design of the study (15%)	-The concept design (conceptual framework) and the experiments (study design) are well-explicated - Flowchart are provided - Additional information were provided to enhance the understanding to the audience	-The concept design and the experiments are provided - Flowchart are provided	Flowchart are provided but some information are missing (lack of either conceptual framework or study design)	Extracted information is shown, but mostly in copy and paste fashion	No experiments and the concept design of the study are provided
5. Clarity in presentation and media (10%)	- PPT and media are clear - Contain technique to emphasize and attractive - Proper speed - Clear voice, Language Pronunciation	- Media are clear -Clear voice, Language Pronunciation	- Media and content are clear - The voice are still unclear	- Media and content are clear for most content - The voice are still unclear	-Poor media and content, too small letter, low resolution figure -Unclear voice, language pronunciation
6. Appropriate on criticizing of paper (5%)	Well extracted many key strengths and weaknesses that affect or influence to the quality of the study	Provide key strengths and weaknesses but with limited number/ info	Provide general strengths and weaknesses	Provide only few numbers of general strengths and weaknesses	Not provide strengths and weaknesses
7. Response to question (15%)	Correctly response to all questions	Correctly response to most questions	Correctly response to some questions	Most question were incorrectly answered	Not response to question
8. Length (30 minutes) (5%)	Within 30 minutes	31-35 minutes	36-40 minutes	41-45 minutes	>45 minutes
9. Time for submission abstract and PPT file before the presentation date (5%)	7 days or more	6 days	5 days	4 days	3 days or less

3.2 Rubric scores of PEER REVIEW

Criteria	Ratio	CLO	5	4	3	2	1
Content and sequence of presentation	20%	1	<ul style="list-style-type: none"> - Contain all prescribed contents (7 topics) - Correctly, clearly, concisely, and well-organized summarized details in all topics 	<ul style="list-style-type: none"> - Contain 6 prescribed contents - Correctly, clearly, concisely, and well-organized summarized details in all topics 	<ul style="list-style-type: none"> - Contain 6 prescribed contents - Correctly, clearly, concisely, and well-organized summarized details in almost of topics 	<ul style="list-style-type: none"> - Contain 6 prescribed contents - Correctly, clearly, concisely, and well-organized summarized details in some topics 	<ul style="list-style-type: none"> - Contain 5 or less than 5 prescribed contents
Ability to interpret and analyze data	20%	1	<ul style="list-style-type: none"> - Correct and clear in all analyzed data - Simplify all interpretations to audience 	<ul style="list-style-type: none"> - Correct in all analyzed data - Simplify most of the interpretations to audience 	<ul style="list-style-type: none"> - Correct in all analyzed data - Need to improve simplification 	<ul style="list-style-type: none"> - Incorrect in some analyzed data - Need to improve simplification 	<ul style="list-style-type: none"> - Incorrect in almost of the analyzed data - Need to improve simplification
Quality of slides	10%	2	<ul style="list-style-type: none"> - All slides are easy to read. - Free of spelling and grammatical errors - Appropriate animations and graphics. 	<ul style="list-style-type: none"> - Most slides are easy to read. - Free of spelling and grammatical errors - Appropriate animations and graphics 	<ul style="list-style-type: none"> - Some slides are difficult to read. - Have some spelling and grammatical errors - Inappropriate animations and graphics or not used 	<ul style="list-style-type: none"> - Many slides are difficult to read. - Some spelling and grammatical errors - Inappropriate animations and graphics or not used 	<ul style="list-style-type: none"> - Many slides are difficult to read. - Numerous spelling and grammatical errors - Inappropriate animations and graphics or not used
Speaking skills, eye contact and posture	10%	3, 4	<ul style="list-style-type: none"> - Speak clearly (volume+speed) all the time - Mispronounce no words - Not reading scripts - Have eye contact most of the time - Appropriate posture (stand up straight, relax, and confident) 	<ul style="list-style-type: none"> - Speak clearly (volume+speed) all the time - Mispronounce a few words - Reading scripts sometimes - Have eye contact most of the time - Appropriate postures 	<ul style="list-style-type: none"> - Speak unclearly (volume+speed) sometimes - Mispronounce a few words - Reading scripts sometimes - Have eye contact sometimes - Appropriate postures 	<ul style="list-style-type: none"> - Speak unclearly (volume+speed) all the time - Mispronounce a few words - Reading scripts sometimes - Have eye contact sometimes - Inappropriate postures 	<ul style="list-style-type: none"> - Speak unclearly (volume+speed) all the time - A lot of mispronounced words - Reading scripts all the time - No eye contacts - Inappropriate postures
Response to question	20%	2, 4	<ul style="list-style-type: none"> - Have correct and clear answers to all questions - Have eye contact and appropriate body language 	<ul style="list-style-type: none"> - Have correct and clear answers to most of the questions - Have eye contact and appropriate body language 	<ul style="list-style-type: none"> - Have unclear answers to most of the questions - Have eye contact and appropriate body language 	<ul style="list-style-type: none"> - Incorrect and unclear answers to some questions - Need to improve eye contact and body language 	<ul style="list-style-type: none"> - Incorrect and unclear answers to all questions - Need to improve eye contact and body language
Report submission	10%	4	3 days before presentation	2 days before presentation (Before 4.30 pm)	2 days before presentation (After 4.30 pm)	1 day before presentation (Before 4.30 pm)	1 day before presentation (After 4.30 pm)
Length of presentation	10%	4	Within 15 mins	Within 17 mins	Within 19 mins	Within 21 mins	More than 21 mins

Need to know for SEMINAR

Teaching procedures

1. Each student will be assigned by an advisor and guided in the preparation of the seminar presentation.
2. Students must search for their own recent scientific papers in microbiology or biomedical sciences. Select at least 2 papers that should be published within the last 2 years. Set the title of the seminar topic. The integration of the papers leading to the professional seminar (unlike the journal club presentation) is encouraged.
3. Students must propose the seminar topic to their advisor (s) for approval.
4. Students should meet the advisor to formulate an overall plan for seminar presentation.
5. Students should prepare a Power Point presentation and practice the presentation.
6. Students must compose an abstract which contains the title, the author's name, the advisor's name, an abstract with 250 to 300 words limit with list of references, and then submit to their advisors to approve.
7. The title, abstract, power point and the main paper for seminar must be submitted to the e-learning for at least 7 days before your seminar date, otherwise, the points of submission will be subtracted subsequently day by day.
8. Students have 30 minutes to present the presentation and 20-30 minutes to answer questions and discuss the paper with the audience.
9. After presentation, the students are discussed in their own group for 5-7 minutes depending on the modulators and the complexity of the topic (please see the student in the last page)
10. All graduate students are expected to attend and actively participate in the class with discussion.

Step of seminar presentation in class

1. The seminar presentation must correspond to the specific content on [page 10](#) (please see page 10 of this document).
2. After the seminar presentation (30 min), the students must ask questions or discuss the related aspects.
3. The question session:
 - The priority for asking the questions of the students is as follows.
 - 1) Enrolled students
 - 2) Non-enrolled students
 - 3) Lottery for activating the participation (both enrolled and non-enrolled students)
 - Only volunteer questions (enrolled student) will be counted in [the score of participation \(10%\)](#) and volunteer question from non-enrolled student will be recorded for “[Good participant award](#)” (There are awards in the progress report conference for students who have the most participations).
 - After the presentation, the comment for the presenter will be sent privately to the [e-mail or other contact means.](#)
 - For non-enrolled students, student who [missing the class > 2 times](#) (Co-modulator will record in the class.) must have special seminar presentation in the next semester.

MD627 994 Seminar in Medical Microbiology
Department of Microbiology, Faculty of Medicine, Khon Kaen University

Title

Student

Advisor

Date

Abstract

The abstract should contain background, objective, materials and methods, results, and conclusions.

Reference

1.....

2.....

Notification: the whole abstract must not exceed one A4 page

Power point presentation

Power point presentation should be included

1. Introduction and rationale
2. Objectives
3. Experiments (flowchart and pictures are very preferable)
4. Results
5. Conclusion
6. Summary
7. Criticism

Need to know for PEER REVIEW (PROGRESS REPORT)

1. The text (around 3-5 pages) describing the thesis progress **must have to be submitted 3 days before presentation**. Please specify the year of study (e.g., 1st, 2nd, or 3rd year student)
2. The presentation is a **15-minutes-talk** by emphasizing **the current experiments that have never been presented before**.
3. The content of presentation should contain 7 topics as following (please see [page 12](#) of this document):
 1. Introduction and rationale (1-2 slides, very concise, skip if it presented in the previous time),
 2. Conceptual framework
 3. Objective (s)
 4. Study design and anticipated outcomes
 5. **Result (analyzed information or data) and table comparing the result from previous presentation and conclusion (s)**
 6. Problem (s) in the experiment/thesis and sharing of how to fix the problem (s)
 7. **Plan of the thesis (number of enrolled credit/timetable & plan/What to do next?) (compulsory)**
4. For the 1st year students, the presentation can include (as it is the beginning of the experiment):
 - Literature review and rationale
 - Conceptual framework
 - Objective (s)
 - Study design and anticipated outcomes
 - **Plan of the thesis (number of enrolled credit/timetable & plan/What to do next?) (compulsory)**



If the students have any queries, please feel free to contact Dr. Chonlatip, Dr. Auttawit, or Dr. Sakawrat.

Thesis progression

Thesis title:

Thesis progression title:

Student: Student ID:

Advisor:

Co-advisor:

Date:

1. Introduction

2. Objective (s)

3. Materials and methods

 Example 3.1 Bacterial strains or Cell line

 3.2 RNA extraction

 etc..

4. Results

5. Conclusion

6. References

Power point presentation (please see the template in e-learning)

1. Introduction and rationale (1-2 slides, very concise, skip if it presented in the previous time),
2. Conceptual framework
3. Objective (s)
4. Study design and anticipated outcomes
5. Result (analyzed information or data) and table comparing the result from previous presentation and conclusion (s)
6. Problem (s) in the experiment/thesis and sharing of how to fix the problem (s)
7. Plan of the thesis (number of enrolled credit/timetable & plan/What to do next?)*

List of presenters (2nd Semester, AY 2023)

Date	Time	Seminar's presenters	Progress report's presenters
15/11/2023	10.00 – 12.00	Special seminar: Lect. Dr. Pratsanee Hiangraj & Orientation (Asst. Prof. Dr. Kanin)	
22/11/2023	11.00 – 12.00	Special seminar: Lect. Dr. Pornchai Kaewsapsak [ONLINE]	
29/11/2023	10.00 – 12.00	Tran Tuan Khoi	Tran Tuan Khoi, Yothin
6/12/2023	10.00 – 12.00	Sutharini	Sutharini, Nut
13/12/2023	10.00 – 12.00	Narathit	Narathit, Chiraphon
20/12/2023	No class		
27/12/2023	10.00 – 12.00	Chutinthorn	Chutinthorn, Nuttaya
03/01/2024	No class		
10/01/2024	9.30 – 12.00	Juthamas	Juthamas, Chaichan, Watcharapong
17/01/2024	10.00 – 12.00	Nithiphoom	Nithiphoom, Napatson
24/01/2024	9.30 – 12.00	Atitiya	Atitiya, Chanchai, Chatcharin
31/01/2024	9.30 – 12.00	Dwi	Dwi, Varis, Areeya
7/02/2024	10.00 – 12.00	Onanong	Onanong, Priyakorn
14/02/2024	10.00 – 12.00	Supawadee	Supawadee, Parweenuch
21/02/2024	10.00 – 12.00	Thanyaporn	Thanyaporn, Apisith
6/03/2024	10.00 – 12.00	Worada	Worada, Kunsuda
13/03/2024	9.30 – 12.00	Narathon	Narathon, Thananon, Ploy
20/03/2024	10.00 – 12.00	Kingkan	Kingkan, Chitsanucha
4/04/2024	The 13 th MMC		

Venue:

Lecture Room #4 (Near the Pharmaceutical canteen), Faculty of Medicine, Khon Kaen University

Schedule of seminar presentation and progress report (Second Semester, AY 2023)

Date: every Wednesday at 10.00 AM - 12.00 PM | Venue: Lecture Room #4 (Near the Pharmaceutical canteen), Faculty of Medicine, Khon Kaen University

Date	Time	Seminar's presenters	Progress report's presenters	Modulator	Co-Modulator	Instructors				
						#1	#2	#3	#4	#5
15/11/2023	10.00 – 12.00	Special seminar (Lect. Dr. Pratsanee) & Orientation (Asst.		Kanin	Sirinart	Sakawrat	Auttawit	Chonlatip	Umaporn	Hans
22/11/2023	11.00 – 12.00	Special seminar: Lect. Dr. Pornchai Kaewsapsak [ONLINE]		Kanin	Suwalak	Umaporn	Sakawrat	Arnone	Pratsanee	Hans
29/11/2023	10.00 – 12.00	Tran Tuan Khoi	Tran Tuan Khoi, Yothin	Wisitsak	Chonlatip	Kittipan	Arnone	Pratsanee	Sorujisiri	Hans
6/12/2023	10.00 – 12.00	Sutharini	Sutharini, Nut	Sirinart	Umaporn	Wises	Thitima	Kanin	Kittipan	Hans
13/12/2023	10.00 – 12.00	Narathit	Narathit, Chiraporn	Supranee	Sakawrat	Arnone	Wisitsak	Sirinart	Chonlatip	Hans
20/12/2023	No class									
27/12/2023	10.00 – 12.00	Chutinthorn	Chutinthorn, Nattaya	Auttawit	Chonlatip	Sorujisiri	Wises	Suwalak	Wisitsak	Hans
3/01/2024	No class									
10/01/2024	9.30 – 12.00	Juthamas	Juthamas, Chaichan, Watcharapong	Suwalak	Sirinart	Pratsanee	Kittipan	Umaporn	Supranee	Hans
17/01/2024	10.00 – 12.00	Nithiphoom	Nithiphoom, Napatson	Chonlatip	Supranee	Sakawrat	Thitima	Sorujisiri	Auttawit	Hans
24/01/2024	9.30 – 12.00	Atitiya	Atitiya, Chanchai, Chatcharin	Arnone	Supranee	Pratsanee	Kittipan	Thitima	Sakawrat	Hans
31/01/2024	9.30 – 12.00	Dwi	Dwi, Varis, Areeya	Pratsanee	Arnone	Sorujisiri	Sirinart	Wisitsak	Kittipan	Hans
7/02/2024	10.00 – 12.00	Onanong	Onanong, Priyakorn	Suwalak	Pratsanee	Wises	Thitima	Umaporn	Sorujisiri	Hans
14/02/2024	10.00 – 12.00	Supawadee	Supawadee, Parweenuch	Auttawit	Sakawrat	Kittipan	Wises	Thitima	Arnone	Hans
21/02/2024	10.00 – 12.00	Thanyaporn	Thanyaporn, Apisith	Arnone	Wisitsak	Pratsanee	Suwalak	Wises	Auttawit	Hans
6/03/2024	10.00 – 12.00	Worada	Worada, Kunsuda	Sakawrat	Umaporn	Supranee	Auttawit	Suwalak	Pratsanee	Hans
13/03/2024	9.30 – 12.00	Narathon	Narathon, Thananon, Ploy	Umaporn	Auttawit	Supranee	Thitima	Sakawrat	Sirinart	Hans
20/03/2024	10.00 – 12.00	Kingkan	Kingkan, Chitsanucha	Wisitsak	Chonlatip	Sorujisiri	Arnone	Suwalak	Wises	Hans
4/04/2024	The 13 th MMC									