Course Syllabus

SCPS609 Scientific Paper Analysis

Credit: 1(0-3-1) Academic Year 2023

Course Coordinator: Assistant Professor Dr.Ioannis Papadimitriou
สถานที่ติดต่อ : ภาควิชาสรีรวิทยา คณะวิทยาศาสตร์
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Course Schedule: Jan 2024 – April 2024, 1:00 p.m. – 3:30 p.m.

Curriculum: Master of Science Program in Physiology
(Required course)

Semester offering: Second semester

Prerequisite: None

Course Description:

Scientific writing and communication skills, principles for scientific writing, scientific integrity, ethical guidelines for scientific writing, research papers and grant proposals writing, guidelines for scientific presentations

***Program Expected Learning Outcome (ELOs) aligned with skills expected from this course**

ELO		Expected skills
ELO 1	Demonstrate ethics, morality, responsibility	K2. Human and animal rights K3. Research ethics
ELO 2	Evaluate physiological concepts for knowledge transfer and problem solving	K4. Basic knowledge in Physiology K10. Knowledge in related fields GS4. English Reading GS6.Critical thinking
ELO 3	Apply research skills in physiology or related fields to produce publications or other research outputs	GS4. English Reading

		GS7. Critical and analytical thinking
ELO 4	Demonstrate teamwork and leadership skill	GS1. Working group
ELO 5	Transfer/deliver knowledge by using various means of communications	GS9. English Speaking GS10. Communication skills GS11. IT usage K12. Public speaking

Course Learning Outcome (CLOs)

CLO 1 Understand and professionally explain ethical guidelines and knowledge in physiology and related fields

CLO 2 Criticize and discuss scientific works in the context of physiology and related fields

Constructive Alignment of Course Content to CLOs and Program's ELOs

Content	CLO	ELO	SS/GS/K	T/L Approach	Assessment
Ethical guidelines for animal/human subject care and use for scientific purposes	1	1	K2, K3	Reading assignment, Class discussion	Rubric for class participation*
Content and organization of scientific papers	1	2, 3	K4, K10, GS4, GS6	Demonstrate Reading assignment Class discussion	Rubric for class participation
Discuss the experimental design, objectives, rationale and statistical analysis	2	2, 3, 4, 5	K4, K10, K12, GS1, GS4, GS6–7, GS9–11	Demonstrate Presentation Class discussion	Rubric for class participation

*Rubric for class participation will be used in all lectures.

Course Assignments

- Reading assignments before the class
- Discussion topics, case study, original/research articles, review articles
- Well prepare for presentation before class

Assessment Criteria

Formative evaluation

- Feedback on group discussion
- Feedback on presentations

Summative evaluation

- Assignments and class participation 100%

Students will be graded (A, B+, B, C+, C) based on student's score from the whole course. To pass this course, students must receive score equal or above 60%.

References

- Assigned reading materials

Appeal Procedure: Students can appeal about the assessment, grade or any issues directly to the instructors and/or course coordinator by direct contact, email or telephone.

Updated: 5 January 2024

Course schedule

	Date	Time	Topic	Instructors
-	Jan 8	1:00–1:10	Course orientation	Panan
	Emphasize on research articles			
1	Jan 8	1:10–3:00	Critique of scientific paper: abstract & introduction	Panan
2	Jan 15	1:00–3:00	*Practice 1*: How to write standout abstract, background and research questions	Ratchakrit
3	Jan 22	1:00–3:00	Critique of scientific paper: materials & methods and results	Arthit
4	Jan 29	1:00–3:00	*Practice 2*: How to write materials & methods and results	Jittima
5	Feb 5	1:00–3:00	Critique of scientific paper: discussion	Arthit
6	Feb 12	1:00–3:00	*Practice 3*: How to write discussion	Nattapon
	Emphasize on review articles/perspectives			
7	Feb 19	1:00–3:00	Critique of review article/perspective	Narattaphol
8	March 6* (make up class)	10:00–12:00	*Practice 4*: How to write good review articles	Narattaphol
9	March 13* (make up class)	10:00–12:00	Things to consider before submission and how to get through the revision process	Arthit
-	March 13*	3:00–3:10	Wrap up/Reflection	Panan

Rubric for class participation

FOCUS	EXPECTATIONS			Score
	Below (1)	**Average (2)**	**Exceed (3)**	
Knowledge (60%)	Insufficient/ incorrect information	Sufficient knowledge	Sufficient, accurate & integrative knowledge in physiology with related fields	
Question Handling (20%)	Incorrect/ ineffective inappropriate responses	Appropriate & effective responses	Effective & advance responses with integrative view	
English Proficiency (10%)	Student **fairly** grasped some of the questions and topics that were being discussed.	Student was able to comprehend and respond to **most of** the questions and topics that were being discussed.	Student was able to comprehend and respond to **all** of the questions and the topics that were being discussed with ease.	
Preparation & Class participation (10%)	Student is **almost never** prepared for class with assignments and **never** contributes to class by offering ideas and/or asks questions	Student is **rarely** prepared for class with assignments and **rarely** contributes to class by offering ideas and/or asks questions	Student is **always** prepared for class with assignments and **proactivity** contributes to class by offering ideas and/or asks questions more than once per class.	
Total score..... (100%)				