UNIVERSITAS NEGERI YOGYAKARTA
POSTGRADUATE DEPARTMENT OF ELECTRONICS AND INFORMATICS ENGINEERING EDUCATION

Jalan Colombo Nomor 1 Yogyakarta 55281
Telepon: (0274) 586168 Pesawat 216, 289, 292; Fax. (0274) 586734
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Master of Education in Electronics and Informatics Engineering

MODULE HANDBOOK

Module name:	Science of Philosophy
Module level, if applicable:	Postgraduate
Code:	PPS 8201
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	1th
Module coordinator:	Prof. Dr. Drs. Putu Sudira, M.P.
Lecturer(s):	Prof. Dr. Drs. Putu Sudira, M.P.
Language:	Bahasa Indonesia
Classification within the curriculum:	Expertise Foundation Courses (EFC)
Teaching format / class Hours per week during the semester:	100 minutes lectures and 100 minutes structured activities per week.
Workload:	Total workload is 90.67 hours per semester which consists of 100 minutes lectures, 100 minutes structured activities, and 120 minutes self-study per week for 16 weeks.
Credit points:	2
Prerequisites course(s):	-
Course Learning Outcome (CLO):	After taking this course the students have ability to: 1. Having capability to apply responsibility, professional, independence works, collaboration, critical thinking, innovation skill and teamwork skills in academic environment and community activities 2. Having capability to conduct continuous learning attitude in order to improve knowledge, skills and competences within a personal, civic, social and/or employment-related perspective. 3. Having capability to develop science and technology in advanced Electronics Engineering and Information Technology
Content	This course equips students to understand the philosophy of science (ontology, epistemology, and axiology) and the scope of the philosophy of science. In addition, students also explore scientific thinking tools, scientific methods in science, theories of truth, and scientific truth. Furthermore, students are expected to gain experience in implementing the philosophy of science in scientific methods or research methods, and its implementation to develop knowledge in the field of Electronic

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	Engineering and Informatics Education.
Study/exam achievements:	The lecture assessment is carried out using the principle of competency assessment. The assessment includes the assessment of knowledge and thinking skills and attitudes of students in developing knowledge. How do students professionally develop independent learning through individual and group activities to be critical of existing knowledge and creatively develop new knowledge. The ability of students to review papers, to criticize papers is considered as the ability to be scientific in learning. The ability of students in the development of knowledge is assessed by their competence in writing papers in the field of electronics engineering and informatics. The assessment technique for each PLO as well as the weight of the assessment is determined as follows. The lecture assessment is carried out using the principle of competency assessment. The assessment includes the assessment of knowledge and thinking skills and attitudes of students in developing knowledge. How do students professionally develop independent learning through individual and group activities to be critical of existing knowledge and creatively develop new knowledge. The ability of students to review papers, to criticize papers is considered as the ability to be scientific in learning. The ability of students in the development of knowledge is assessed by their competence in writing papers in the field of electronics engineering and informatics. The assessment technique for each PLO as well as the weight of the assessment is determined as follows.

No	CLO	Assessment Object	Assessment Technique	Weight
1	CLO1	Classes Discussion	active discussion, critical thinking, ability to ask questions and express opinions	15%
2	CLO2	a. Individual assignments b. Group assignments	Paper review Written test	40%

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			c. Midterm exam d. Final exam	Written test	
	3	CLO3	Paper writing	Product of 2 papers	45%

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Forms of media:	Board, LCD Projector, Laptop/Computer, Internet
Literature	1) Noeng Muhadjir. (2006). Filsafat ilmu: Kualitatif & kuantiatif untuk pengembangan ilmu dan penelitian. Edisi III. Yogyakarta: Rake Sarasin; 2) Tim Dosen Filsafat Ilmu UGM. (2010). Filsafat Ilmu: Sebagai dasar pengembanganilmu pengetahuan. Yogyakarta: Liberty.; 3) Bambang Sugiarto. (1996). Postmodernisme: tantangan bagi filsafat. Yogyakarta: Kanisius.; 4) Jujun S. Suriasumantri. (2001). Ilmu dalam perspektif, Jakarta: Yayasan Obor Indonesia.; 5) Walters, J. Donald. (2003). Crises in modern thought. (Menyelami kemajuan ilmu pengetahuan dalam lingkup filsafat dan hukum kodrat). Alih bahasa oleh B. Widhi Nugraha. Jakarta: Gramedia Pustaka Utama.; 6) Capecchi, Danilo. (2020). What Is Philosophy of Science? . Polity Press; 7) Manuel Heras-Escribano. (2019) The Philosophy of Affordances. Palgrave Macmillan; 8) Robert Sinclair. (2019). Science and Sensibilia by W. V. Quine: The 1980 Immanuel Kant Lectures. Springer International Publishing; Palgrave Macmillan 9) William F. McComas. (2020). Nature of Science in Science Instruction: Rationales and Strategies. Cham : Springer. 10) Hanna Pickard; Serge H Ahmed; (2019); The Routledge Handbook of Philosophy and Science of Addiction; Routledge; 11) Hanna Pickard; Serge H Ahmed; (2019); The Routledge Handbook of Philosophy and Science of Addiction; Routledge;

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PLO and CLO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
CLO1		✓								
CLO2			✓							
CLO3					✓					
CLO4										