



Universitas Negeri Surabaya
Faculty of Postgraduate School,
Master of Technology and Vocational Education Study Program

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date																																
Audio and Video Engineering	8310103039		T=3	P=0	ECTS=6.72	2	July 17, 2024																																
AUTHORIZATION	SP Developer		Course Cluster Coordinator			Study Program Coordinator																																	
			Dr. Ir. Achmad Imam Agung, M.Pd.																																	
Learning model	Project Based Learning																																						
Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																						
	Program Objectives (PO)																																						
	PLO-PO Matrix																																						
		<table border="1" style="margin: auto;"> <tr><td style="width: 100px; height: 20px;">P.O</td></tr> </table>						P.O																															
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PO Matrix at the end of each learning stage (Sub-PO)																																						
		<table border="1" style="margin: auto;"> <tr> <td rowspan="2" style="width: 100px; height: 20px;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 20px;">1</td> <td style="width: 20px;">2</td> <td style="width: 20px;">3</td> <td style="width: 20px;">4</td> <td style="width: 20px;">5</td> <td style="width: 20px;">6</td> <td style="width: 20px;">7</td> <td style="width: 20px;">8</td> <td style="width: 20px;">9</td> <td style="width: 20px;">10</td> <td style="width: 20px;">11</td> <td style="width: 20px;">12</td> <td style="width: 20px;">13</td> <td style="width: 20px;">14</td> <td style="width: 20px;">15</td> <td style="width: 20px;">16</td> </tr> </table>						P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																							
Short Course Description	Examining the development of Audio and Video technology including theory, systems, working principles, benefits, impacts and applications in vocational education and everyday life																																						
References	Main :																																						
	1. Arnold, John & Frater, Michael & Pickering, Mark. 2007. Digital Television and Standards. New Jersey: A John Wiley & Sons, Inc Austerberry David. 2005. The Technology of Video and Audio Streaming. Second Edition. Collins, PE & Gerald W. 2001. Fundamentals of Digital Television Transmission. New York: John Wiley & Sons, Inc. Eliezer, Shalom & Eliezer, Yaffa . 2001 The Fourth State of Matter An Introduction to Plasma Science Second Edition. London: IOP Self, Douglas. 2002. Audio Power Amplifier Design Handbook. Third edition. Oxford: Newnes																																						
	Supporters:																																						
Supporting lecturer	Dr. Agus Budi Santoso, M.Pd. Dr. Meini Sondang Sumbawati, M.Pd.																																						
Week-	Final abilities of each learning stage (Sub-PO)	Evaluation		Help Learning, Learning methods, Student Assignments, [Estimated time]		Learning materials [References]	Assessment Weight (%)																																
		Indicator	Criteria & Form	Offline (offline)	Online (online)																																		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)																																
1	Analyzing information systems	1. information system 2. system characteristics 3. development of information systems	Criteria: According to the assessment rubric	Constructivist and 3 X 50 discussion			0%																																

2	Explains composite video signals	1. Parts 2. Function	Criteria: According to the assessment rubric	Approach: PAIKEM Model: cooperative 3 X 50			0%
3	Formation of audio signals	Identify: 1. frequency 2. Signal shape3. modulation system	Criteria: According to the assessment rubric	Approach: Constructivist 3 X 50			0%
4	Identify the size of the audio signal	1. Discuss how to measure the size of an audio signal2. Analyze the implementation of audio signals	Criteria: Ability to answer and depth of insight	Discussion and sharing 3 X 50			0%
5	Identify Audio technology	Analyze the differences between digital and analog audio technology Demonstrate the digital audio recording process	Criteria: Assessments are carried out on aspects of participation, assignments, UTS and UAS	Independent workPresentation 3 X 50			0%
6	Identifying audio technology Identifying car audio systems	Identifying systems 1. compact disc 2. digital audio3. FM and AM audio system	Criteria: Assessments are carried out on aspects of participation, assignments, and UTS and UAS	Assignments and presentations 3 X 50			0%
7	Analysis of the development of modern audio engineering and HiFi	Identify: 1. development trends 2. amplifiers3. control system	Criteria: Criteria according to performance assessment guidelines and rubrics	Independent work and presentation 3 X 50			0%
8	Carry out UTS	Make studies about audio or video	Criteria: Product assessment criteria and rubric	independent work 3 X 50			0%
9	Video signal formation	1. Identify the signal formation process 2. Analyze the parts 3. Explain the function	Criteria: In accordance with product assessment guidelines and performance assessment rubrics	Independent work and presentation 3 X 50			0%
10	Identify video signals	Identify: 1. frequency 2. bandwidth3. modulation system	Criteria: Performance assessment criteria and product assessment according to guidelines and rubrics	Independent work and presentation 3 X 50			0%
11							0%
12							0%
13							0%
14							0%
15							0%
16							0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
		0%

Notes

1. **Learning Outcomes of Study Program Graduates (PLO - Study Program)** are the abilities possessed by each Study Program graduate which are the internalization of attitudes, mastery of knowledge and skills according to the level of their study program obtained through the learning process.
2. **The PLO imposed on courses** are several learning outcomes of study program graduates (CPL-Study Program) which are used for the formation/development of a course consisting of aspects of attitude, general skills, special skills and knowledge.
3. **Program Objectives (PO)** are abilities that are specifically described from the PLO assigned to a course, and are specific to the study material or learning materials for that course.
4. **Subject Sub-PO (Sub-PO)** is a capability that is specifically described from the PO that can be measured or observed and is the final ability that is planned at each learning stage, and is specific to the learning material of the course.
5. **Indicators for assessing** ability in the process and student learning outcomes are specific and measurable statements that identify the ability or performance of student learning outcomes accompanied by evidence.
6. **Assessment Criteria** are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
7. **Forms of assessment:** test and non-test.
8. **Forms of learning:** Lecture, Response, Tutorial, Seminar or equivalent, Practicum, Studio Practice, Workshop Practice, Field Practice, Research, Community Service and/or other equivalent forms of learning.
9. **Learning Methods:** Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, and other equivalent methods.
10. **Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
11. **The assessment weight** is the percentage of assessment of each sub-PO achievement whose size is proportional to the level of difficulty of achieving that sub-PO, and the total is 100%.
12. TM=Face to face, PT=Structured assignments, BM=Independent study.