PORTFOLIO
ICT Learning Media Development

ACADEMIC YEAR 2023/2024 EVEN SEMESTER

Course Coordinator:
Sukarmin, M.Pd.

Teaching Team:
Sukarmin, M.Pd. and Dr. Kusumawati Dwiningsih, S.Pd., M.Pd.

CHEMISTRY DEPARTMENT

FACULTY OF MATHEMATICS AND NATURAL SCIENCE
UNIVERSITAS NEGERI SURABAYA

TABLE OF CONTENT

A. SEMESTER LEARNING ACTIYITY PLAN

A.1. COURSE IDENTITY

Module Name	ICT Learning Media Development
Module level	Bachelor
Abbreviation, if applicable	-
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	6th / Thrird Year
Module coordinator(s)	Dr. Sukarmin, M.Pd
Lecturer(s)	Dr. Sukarmin, M.Pd. Dr. Kusumawati Dwiningsih, S.Pd., M.Pd.
Language	Indonesian (Reguler Class) English (International Class)
Classification within the curriculum	Compulsory Course
Teaching format/class hours per week during the semester:	2 hours lecturers (50 min per hours)
Workload:	1 CU for bachelor degree equals to 3 workhours per week or 170 minutes (50' face to face learning, 60' structured learning, and 60' independent learning). In one semester, courses are conducted in 14 weeks (excluding mid and end-term exam). Thus, 1 CU equals to 39.67 workhours per semester. One CU equals to 1.587 ECTS.
Credit points:	2 Credit Units (CU) = (3.18 ECTS)
Prerequisites course(s):	-
Targeted learning outcomes:	Upon completing this module, students are expected to be able to: 1. Able to understand the basic concepts of information and communication technology (ICT) in chemistry learning and its relevance in supporting an effective and interactive teaching and learning process. 2. Have the ability to be responsible in developing ICT-based chemistry learning media. 3. Able to design and develop ICT-based chemistry learning media, such as learning videos, animations, virtual laboratory simulations, and interactive presentations. 4. Able to integrate the latest innovations and trends in learning technology, such as the use of e- learning platforms, augmented reality (AR), and game-based learning in chemistry learning.

	5. Able to evaluate the effectiveness of using ICT-based learning media in chemistry learning through reflection and analysis of feedback from students.
Content:	1. Basic concepts of Information and Communication Technology (ICT) in learning 2. Types, characteristics, and analysis of ICT-based learning media 3. Storyboard and blueprint design for ICT learning media 4. Development of interactive flipbook learning media 5. Software for media development: Flash, Articulate Storyline, Lectora 6. Development of chemistry learning animations 7. Creation of interactive learning videos using Microsoft PowerPoint 8. Integration of multimedia and interactive elements in presentations 9. Video processing: recording, converting, and editing (Pinnacle Studio) 10. Designing instruments for user feedback and evaluating media effectiveness 11. Managing and analyzing feedback data 12. Development of web-based learning media 13. Presentation and documentation of ICT-based media products
Study / exam achievements:	Students are considered to be competent and pass if at least get 55. Final score is calculated as follows: 20% participation + 30% assignment + 20% middle exam (UTS) & 30% final exam (UAS) Table index of graduation: ● A = 4 (85 ≤-≥ 100) ● A- = 3,75 (80 ≤-< 85) ● B+ = 3,5 (75 ≤- < 80) ● B = 3 (70 ≤-< 75) ● B- = 2,75 (65 ≤-<75) ● C+ = 2,5 (60 ≤-<65) ● C = 2 (55 ≤-<60) ● D = 1 (40 ≤-<55) ● E = 0 (0 ≤-<40)
Media:	
Learning Methods	Individuals assignment, group assignment, discussion, presentation, and practicum

Literature:	1. 2006. User 19s Guide Chem &Bio Office Desktop 2008 for Windows. CambridgeSoft Corporations 2. 2009. Sound Forge Pro 10 UserGuide. Sony Creative Software Inc. 3. Ellen Finkelstein, Ellen. , GurdyLeete. 2002.50 Fast Flash MX Techniques.Wiley Publishing, Inc. ,Indianapolis, Indiana 4. Fenrich, P. 1997. PracticalGuidelines For Creating Instructional Multimedia Application. USA:HarcourtBrace College Publisher 5. Heinich, R. , Molenda. 1999. InstructionalMedia and Technologies forLearning.USA: Prentice Hall. 6. Sadiman. 2009.Media Pendidikan. Jakarta 6. K Dwiningsih, F Fajaroh, P Parlan, M Munzil, H Habiddin.2022. 3D Molecular Interactive Multimedia for Building Chemistry Students' Spatial Ability. iJET – Vol. 17, No. 14 pp. 253-262. https://www.learntechlib.org/p/223195/
Note	1.Learning Outcomes of Study Program Graduates are abilities possessed by each Study Program graduate which is an internalization of attitude, mastery of knowledge and skills according to the level of study program obtained through the learning process. 2.Learning Outcomes of Study Program Graduates assigned to courses are some of the learning outcomes of study program graduates used for the formation/development of a course consisting of aspects of attitude, general skills, specific skills and knowledge. 3.Course Learning Outcomes are abilities that are specifically described from Study Program Graduate Learning Outcomes that are assigned to courses, and are specific to the study material or learning material for that course. 4.Subject Learning Outcomes are abilities that are specifically described from Course Learning Outcomes that can be measured or observed and are the final abilities that are planned at each stage of learning, and are specific to the course learning material. 5.Indicators for assessing abilities in the process and student learning outcomes are specific and measurable statements that identify the abilities or performance of student learning

	outcomes accompanied by evidence. 6. Assessment criteria are benchmarks that are used as a measure or benchmark of learning achievement in assessment based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be either quantitative or qualitative. 7. Forms of assessment: test assessment and non-test assessment. 8. Forms of learning: Lectures, Responses, Tutorials, Seminars 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 weight of the assessment is the percentage of the assessment of each achievement of the Subject Learning Sub Outcomes whose magnitude is proportional to the level of difficulty of achievement, and the total is 100%.

A.2. COURSE TOPIC

Reviewing computer programs including sound processing, image processing, video processing, and animation processing to develop ICT- based learning media according to the characteristics of chemical material through discussion and practice.

A.3. COURSE PROGRAM

UNESA	**UNIVERSITAS NEGERI SURABAYA** **FACULTY OF MATHEMATICS AND NATURAL SCIENCE** **UNDERGRADUATE PROGRAMME OF CHEMISTRY EDUCATION**	**Document Code**

SEMESTER LEARNING ACTIVITY PLAN

COURSE	**Code**	**Course Group**	**Credit Unit**		**Semester**	**Date**
ICT LEARNING MEDIA DEVELOPMENT	8420402223	Compulsory Courses of Study Program	**T= 2**	**P= 0**	7	Oktober, 19 2024

AUTHORIZATION	**Compiler**	**Coordinator**	**Head of Study Program**
CHEMISTRY EDUCATION	Dr. Sukarmin,M.Pd	Dr. Sukarmin,M.Pd	Prof. Dr. Utiya Azizah, M.Pd.

Learning Outcomes	**Program Learning Outcomes (PLO)**	
	PLO7 (KN-2)	Able to demonstrate chemical pedagogical knowledge about designing, implementing, and evaluating chemistry learning
	PLO9 (KN-4)	Able to design, implement, evaluate learning, and develop chemistry learning media by utilizing Information and Communication Technology.
	PLO10 (SS-5)	Able to develop or implement science, technology and art that pays attention to and applies humanities values that are appropriate to the field of chemistry education in solving problems.
	Course Learning Outcomes (CLO)	
	CLO1	Understand the basic concepts of information and communication technology (ICT) in chemistry learning and its relevance in supporting an effective and interactive teaching and learning process.
	CLO2	Have the ability to be responsible in developing ICT-based chemistry learning media.
	CLO3	Able to design and develop ICT-based chemistry learning media, such as learning videos, animations, virtual laboratory simulations, and interactive presentations
	CLO4	Able to integrate the latest innovations and trends in learning technology, such as the use of e- learning platforms, augmented reality (AR), and game-based learning in chemistry learning.
	CLO5	Able to evaluate the effectiveness of using ICT-based learning media in chemistry learning through reflection and analysis of feedback from students.
Brief Description of the Course	Reviewing computer programs including sound processing, image processing, video processing, and animation processing to develop ICT- based learning media according to the characteristics of chemical material through discussion and practice.	

Study Materials: Learning Materials	14. Basic concepts of Information and Communication Technology (ICT) in learning 15. Types, characteristics, and analysis of ICT-based learning media 16. Storyboard and blueprint design for ICT learning media 17. Development of interactive flipbook learning media 18. Software for media development: Flash, Articulate Storyline, Lectora 19. Development of chemistry learning animations 20. Creation of interactive learning videos using Microsoft PowerPoint 21. Integration of multimedia and interactive elements in presentations 22. Video processing: recording, converting, and editing (Pinnacle Studio) 23. Designing instruments for user feedback and evaluating media effectiveness 24. Managing and analyzing feedback data 25. Development of web-based learning media 26. Presentation and documentation of ICT-based media products
Reference	**Main:** 1. 2006. User 19s Guide Chem &Bio Office Desktop 2008 for Windows. CambridgeSoft Corporations 2. 2009. Sound Forge Pro 10 UserGuide. Sony Creative Software Inc. 3. Ellen Finkelstein, Ellen. , GurdyLeete. 2002.50 Fast Flash MX Techniques.Wiley Publishing, Inc. ,Indianapolis, Indiana 4. Fenrich, P. 1997. PracticalGuidelines For Creating Instructional Multimedia Application. USA:HarcourtBrace College Publisher 5. Heinich, R. , Molenda. 1999. InstructionalMedia and Technologies forLearning.USA: Prentice Hall. 6. Sadiman. 2009.Media Pendidikan. Jakarta **Additional:** 1. K Dwiningsih, F Fajaroh, P Parlan, M Munzil, H Habiddin.2022. 3D Molecular Interactive Multimedia for Building Chemistry Students' Spatial Ability. iJET – Vol. 17, No. 14 pp. 253-262. https://www.learntechlib.org/p/223195/
Lecturer	Sukarmin, M.Pd. and Dr. Kusumawati Dwiningsih, S.Pd., M.Pd.
Prerequisite courses	-

Meeting	**The final ability of each activity**	**Assessment**		**Learning Forms, Learning Methods, Student Assignment**		**Reference**	**Rating Weight (%)**
		Indicator	**Criteria & Form**	**Offline**	**Online**		
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
1	Students are able to propose innovative solutions using ICT to	1. Students are able to identify various types of learning media	**Assessment criteria:** Evaluation of	Interactive discussion of project	Interactive discussion of project assignments	**Learning materials:** Basic concepts of information and	**4**

	improve the effectiveness of chemistry learning.	2. Students are able to analyze the advantages and disadvantages of each type of media. 3. Students are able to provide innovative solutions to overcome media limitations in chemistry learning. 4. Students are able to recommend the most appropriate media based on the analysis carried out.	the Implementation of ICT in Learning with the following criteria: Very Good (85-100), Good (70-84), Sufficient (55 69) and Poor (0-54) **Assessment form** : Participatory Activities, Practice / Performance, Tests	assignments (PjBL) 2 X 50	(PjBL) and presentations	communication technology (ICT) in chemistry learning **Bibliography:** *Heinich, R. , Molenda. 1999. InstructionalMedia and Technologies for Learning.USA: Prentice Hall. 6. Sadiman. 2009.Media Pendidikan. Jakarta*	
2	Students are able to choose the type of ICT-based media that is appropriate to the chemistry material being taught.	1. Students are able to identify the need for chemical materials that can be supported by ICT-based media. 2. Students are able to design storyboards or blueprints that are appropriate to chemical material. 3. Students are able to add multimedia	**Assessment criteria:** Assessment of the developed media product, as an assignment, with a weighting of (3) **Assessment form** : Portfolio	Interactive discussion of project assignments (PjBL) and practice 2 X 50	Interactive discussion of project assignments (PjBL) and practice	Flipbook Builder	**6**

		(audio, video, text, images, animation) to interactive flipbooks.	Assessment, Practice / Performance				
3	Students are able to plan the development of learning media by considering student needs.	1. Students are able to plan media development steps in detail. 2. Students are able to conduct a comprehensive evaluation of the impact of the media developed. 3. Students are able to plan media maintenance and updates for sustainability.	**Assessment criteria:** 1. Product assessment as an assignment, with a weight of (3) **Assessment form** : Project Result Assessment / Product Assessment	Interactive discussion of project assignments (PjBL) 2 X 50	Interactive discussion of project assignments (PjBL)	Flipbook Builder	**6**
4	Students are able to plan the development of learning media by considering student needs.	4. Students are able to plan media development steps in detail. 5. Students are able to conduct a comprehensive evaluation of the impact of the media developed. Students are able to plan media maintenance	**Assessment criteria:** 1. Product assessment as an assignment, with a weight of (3) ▪ **Assessment form** : Project Result Assessment /	Interactive discussion of project assignments (PjBL) 2 X 50	Interactive discussion of project assignments (PjBL)	1. Flipbook Builder	**6**

		and updates for sustainability.	Product Assessment				
5	Students are able to design storyboards or learning media frameworks	1. Students are able to develop media according to appropriate software. 2. Students are able to evaluate the effectiveness of the learning media developed	**Assessment criteria:** Product assessment as an assignment, with weight (3) **Assessment form** : Project Result Assessment / Product	Interactive discussion of project assignments (PjBL) and practice 2 X 50	Interactive discussion of project assignments (PjBL) and practice	Adobe Flash Articulate storyline Lectora	**6**
6	Students are able to design instruments for collecting feedback from students.	1. Students are able to develop media according to appropriate software. 2. Students are able to reflect on the experience of using media according to the appropriate software.	**Assessment criteria:** Product assessment as an assignment, with weight (3) **Assessment form** : Project Result Assessment / Product Assessment	Interactive discussion of project assignments (PjBL) and practice 2 X 50	–	Adobe Flash Articulate storyline Lectora	
7	Students are able to design and develop chemistry learning animations	1. Students are able to analyze student needs to determine appropriate media. 2. Students are able to integrate various	**Assessment criteria:** Product assessment as an assignment, with weight (3)	Interactive Discussion and practice 2 X 50	–	Adobe Flash Articulate storyline Lectora	**8**

		media synergistically in learning. 3. Students are able to demonstrate creativity and innovation in designing learning media	**Assessment form** : Project Result Assessment / Product Assessment				
8	**Midterm Exams**						
9	Students are able to create interactive learning videos using Microsoft Power Point	1. Students are able to plan learning video content clearly and in a structured manner. 2. Students are able to design attractive and informative PowerPoint slides. 3. Students are able to record learning videos using the features available in PowerPoint.	**Assessment criteria:** 1. Product assessment as an assignment, with a weight of (3) **Assessment form** : Participatory Activities	Discussion, consultation and practice 2 X 50		**Learning materials:** Microsoft Power Point **Bibliography:**	5
10	Students are able to integrate interactive elements in PowerPoint presentations.	1. Students are able to create navigation buttons that make it easier to move between slides. 2. Students are able to insert external media, such as video or audio,	**Assessment criteria:** Assessment of the media development process, as a task, with a weight of (3)	Discussion, consultation and practice 2 X 50		**Learning materials:** Microsoft Power Point **Bibliography:**	5

		which supports interactivity. 3. Students are able to evaluate the effectiveness of the interactive elements that have been added.	**Assessment form** : Project Result Assessment / Product Assessment				
11	Students are able to design instruments for collecting feedback from students.	1. Students are able to organize the feedback data obtained systematically. 2. Students are able to compile comprehensive feedback analysis reports. 3. Students are able to present the results of feedback analysis effectively.	**Assessment criteria:** Assessment of the media development process, as a task, with a weight of (3) ▪ **Assessment form** : Participatory Activities, Portfolio Assessment	Discussion, consultation and practice 2 X 50		**Learning materials:** Camcorder **Bibliography:**	8
12	Students are able to understand the menu functions in video processing software.	1. Students are able to take videos 2. Students are able to convert video formats	**Assessment criteria:** 1. Assessment of the media development process, as an assignment, with a weight of (3)	Interactive discussion of project assignments (PjBL) and practice 2 X 50	Interactive discussion of project assignments (PjBL) and practice	**Learning materials:** Pinnacle Studio **Bibliography:**	5

			Assessment form : Project Result Assessment / Product Assessment				
13	Students are able to understand the menu functions in video processing software.	Students are able to edit ICT-based learning videos	**Assessment criteria:** Assessment of the media development process, as a task, with a weight of (3) ▪ **Assessment form** : Project Result Assessment / Product Assessment	Discussion, consultation and practice 2 X 50		**Learning materials:** Pinnacle Studio **Bibliography:**	6
14	Students are able to evaluate the effectiveness of the interactive elements that have been added.	Students are able to evaluate the effectiveness of the interactive elements that have been added: Collect feedback from users regarding interactivity and its impact on understanding the material.	**Assessment criteria:** Presentation assessment sheet **Assessment form** : Project Result Assessment / Product Assessment	Presentation performance, Interactive discussion Project assignment (PjBL) 2 X 50	Interactive discussion of project assignments (PjBL)	1. **Learning materials:** Related software **Bibliography :**	5
15	Students are able to integrate interactive elements in interactive multimedia	Students are able to share evaluation results with colleagues and stakeholders.	**Assessment criteria:** Presentation assessment sheet	Interactive discussion of project assignments	Interactive discussion of project assignments (PjBL)	1. **Learning materials:** Interactive Multimedia	6

			Assessment form : Project Result Assessment / Product Assessment, Portfolio Assessment	(PjBL) 2 X 50		**Bibliography :**	
16	Students are able to document evaluation results and recommendations for future reference.	1. Students are able to display the media they have developed 2. Students are able to compile reports that explain the types of interactive elements added and the purpose of their use.	**Assessment criteria:** Final Semester Exam (UAS) of products produced through portfolio assessment, with a weighting of (3)) **Assessment form** : Project Result Assessment / Product Assessment	Presentation Performance 2 X 50		**2. Learning materials:** Web- based media **Bibliography :**	9

A.4. MAPPING OF LEARNING OUTCOMES – COURSE OUTCOMES

A.4.1. The Expected Program Learning Outcomes (PLO) of Undergraduate Program of Education Chemistry (UPCE)

Competency SSC-ASIIN	Aspect	PLO	DESCRIPTION
Social competences	**Attitudes 1 (AT-1)**	PLO 1	Demonstrates religious, national, and cultural values, as well as academic ethics, in carrying out their duties
	Attitudes 2 (AT-2)	PLO 2	Demonstrates a resilient, collaborative, adaptive, innovative, inclusive, lifelong learning, and entrepreneurial character
	General Skills 1 (GS-1)	PLO 3	Develops logical, critical, systematic, and creative thinking in carrying out specific work in the field of expertise and in accordance with the work competency standards in the relevant field.
	General Skills 2 (GS-2)	PLO 4	Develops self-sustainably and collaborates.
	General Skills 3 (GS-3)	PLO 5	Makes decisions based on data/information to complete tasks that are their responsibility and evaluate the performance carried out both individually and in groups, and have an environmentally conscious edu-ecopreneurship spirit.
Specialist competences	**Knowledge 1 (KN-1)**	PLO 6	Demonstrates knowledge related to theoretical concepts of structure, dynamics, and energy, as well as the basic principles of separation, analysis, synthesis, and characterization of chemicals
	Knowledge 2 (KN-2)	PLO 7	Demonstrates pedagogical knowledge of chemistry and applies it in designing, implementing, and evaluating learning.
	Knowledge 3 (KN-3)	PLO 8	Masters laboratory management based on the principles of Occupational Safety and Security (K3), managing the laboratory and using its equipment, and how to operate chemical instruments
	Knowledge 4 (KN-4)	PLO 9	Design, implement, evaluate learning, and develop chemistry learning media by utilizing Information and Communication Technology.
	Special Skills 1 (SS-1)	PLO 10	Develops or implements science, technology, and art that pay attention to and apply humanities values that are appropriate to the field of chemistry education in solving problems.

Competency SSC-ASIIN	Aspect	PLO	DESCRIPTION
	Special Skills 2 (SS-2)	PLO 11	Masters the basics of scientific methods, designing and implementing research, compiling scientific reports, and communicating them both orally and in writing by utilizing information and communication technology in the field of education

A4.2. The Program Education Objectives (PEOs) of ICT Learning Media Development.

PEO 1. Mastering in the concepts of chemistry, chemistry learning, laboratory management, scientific methods, and ICT, and is able to apply them to problem solving in their work.

PEO.2 A high-level thinking ability to communicate ideas verbally and in writing, ability to take the right initiatives and decisions, and lead working groups in relevant fields.

PEO 5. Ability to develop and apply chemical competencies along with advances in science and technology, and humanities values

A4.3. Mapping of Program Learning Outcomes (PLO) – Program Education Objectives (PEOs)

	PLO 7 (KN-2)	PLO 9 (KN-4)	PLO 10 (SS-1)
PEO 1	√	√	√
PEO 2		√	
PEO 5	√	√	√

B. COURSE ASSESSMENT

B.1. Assessment Rubric

Cognitive Criteria

1. The ability to apply ICT concepts accurately in chemistry learning.
2. The ability to design ICT-based learning media aligned with learning objectives.
3. The ability to explain media development processes systematically.
4. The ability to analyze and evaluate the effectiveness of ICT learning media.

B.2. Assessment System

Final Assessment Course

Participation : 20%
Assignment : 20%
Midterm examination : 30%
Final examination : 30%

Distribution of the weight of the ability of the test item

	PLO 7 (KN-2)	PLO 9 (KN-4)	PLO 10 (SS-1)	Total
Participation	30%	30%	40%	100%
Assignment	20%	50%	30%	100%
Midterm examination	40%	40%	20%	100%
Final examination	40%	40%	20%	100%

Success Criteria of Program Learning Outcomes (PLO)

Excellence	≥ 80
Good	≥ 70
Satisfy	≥ 50
Failed	< 0

Final index for undergraduate program defined as follow:

Final Index	Range
A	4 (85 ≤-≥ 100)
A-	3,75 (80 ≤-< 85)
B+	3,5 (75 ≤- < 80)
B	3 (70 ≤-< 75)
B-	2,75 (65 ≤-<75)
C+	2,5 (60 ≤-<65)
C	2 (55 ≤-<60)
D	1 (40 ≤-<55)
E	0 (0 ≤-<40)

C. COURSE DEVELOPMENT

C.1. Academic Year 2023/2024 odd semester

Parameter	∑ of person	Percentage
Number or students taking this subject	37	100%
Number of students who pass at first attempt (>C^+)	37	100%
Number of students who must take remedial	0	0%
Number of failed students after remedial (D & E)	0	0%

C.2. Problems Analysis

In the 2023/2024 academic year, all students (100%) passed the ICT Learning Media Development course on their first attempt, with no remedial required. However, several learning challenges were identified, including variations in students' digital literacy, limited readiness in using ICT software, and slower progress during practical sessions. These issues indicate the need to enhance learning strategies to improve students' competence and confidence in developing ICT-based media.

C.3. Solutive Strategy

New teaching and learning methods should be developed for the next academic years, consisting of:

1. Updating course materials to be more structured, visual, and user-friendly.
2. Providing pre-class online tutorials to improve students' software readiness.

3. Strengthening digital literacy and media development skills through guided practice and project-based tasks.

D. APPENDIX

D.1. DOCUMENT OF COURSE ACTIVITY

D.1.1. Lecture's journal and student's attendance form siakadu.uneca.ac.id

12/11/25, 10:33 AM SIAKAD : Absen

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PRESENSI KULIAH
Periode 2023/2024 Genap

Mata Kuliah : **Pengembangan Media Pembelajaran ICT**
Kelas : 2021Q
Prodi : S1 Pendidikan Kimia
Dosen : Dr. Sukarmin, M.Pd.
Dr. Kusumawati Dwiningsih, S.Pd., M.Pd.

No	NIM	Nama Mahasiswa	Pertemuan Ke															%
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
			08 Feb 24	15 Feb 24	22 Feb 24	29 Feb 24	07 Mar 24	14 Mar 24	21 Mar 24	28 Mar 24	04 Apr 24	11 Apr 24	18 Apr 24	25 Apr 24	02 May 24	09 May 24	16 May 24	23 May 24	
1.	19030194087	AGUNG WIJAYA	A	H	H	H	H	A	H	H	H	H	H	H	H	H	H	H	87.5 %
2.	21030194050	SAIFATUN NUR HAFIDZAH Z	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
3.	21030194053	MUHAMMAD SYAHRUL ABIDIN	A	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	93.8 %
4.	21030194055	KHALIA ROSSIE	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
5.	21030194058	YASINTA SALSABILAH RAMADANI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
6.	21030194060	SHAFNA NOR JANAH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
7.	21030194061	ANDINI PUTRI TANIA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
8.	21030194065	LIZA NURRAHMA DWI AGUSTIN	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
9.	21030194066	YUNITA ANGGRAENI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
10.	21030194067	BERLIANA AFSOHIN NABILA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
11.	21030194068	MAHARANI DYAH ARUMSARI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
12.	21030194073	ASYA FIROSUL MA'WA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
Tanda Tangan Dosen / Asisten																			

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PRESENSI KULIAH

Periode 2023/2024 Genap

Mata Kuliah : **Pengembangan Media Pembelajaran ICT**
Kelas : 2021P
Prodi : S1 Pendidikan Kimia

Dosen : Dr. Sukarmin, M.Pd.
Dr. Kusumawati Dwiningsih, S.Pd., M.Pd.

No	NIM	Nama Mahasiswa	Pertemuan Ke																%
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
			07 Feb 24	14 Feb 24	21 Feb 24	28 Feb 24	06 Mar 24	13 Mar 24	20 Mar 24	27 Mar 24	03 Apr 24	10 Apr 24	17 Apr 24	24 Apr 24	01 May 24	08 May 24	15 May 24	22 May 24	
1.	21030194002	REVANI PUTRI ISWAJI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
2.	21030194005	ALFINA NORMA AZIZAH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
3.	21030194006	LILY WIDYA SARI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
4.	21030194007	AFRILIA DWI ADELIANI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
5.	21030194011	PUTRI EGALITA SALSABILAH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
6.	21030194012	FIRDA NURRAMDANI PUTRI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
7.	21030194013	FAVIAN AGUNG DIFA' SASKARA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
8.	21030194014	ALIVIA PUTRI RYNI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
9.	21030194015	ANGGIK FEBRIANA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
10.	21030194017	SRI RENATA MAHARDHIKA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
11.	21030194019	KHOLIFATUL NAIMAH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
12.	21030194020	KHOLFINA FITROTIS SHOBAKHAH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
13.	21030194021	ALYA AQILAH ZAHRA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
14.	21030194026	NILA ZULFA IZZATI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
15.	21030194027	SITI ANDINI AJENG PRAMESTI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
16.	21030194030	CITRA DIA FADILAH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
17.	21030194034	RAHMANIA FITRAH SARI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
18.	21030194040	CINTANA HANUUN JANUARIZA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
19.	21030194043	SALSA SABRINA FAJAR MAULIDIAH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
20.	21030194046	MUHAMMAD SYAHRUL RAMADHANI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
21.	21030194047	MUHAMMAD HUSEIN ASHARI	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
22.	21030194075	MENI FERONIKA TAINMETA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
23.	21030194078	FANIA FASYA REWANDA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
24.	21030194083	SALVIA SALSABILLA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
25.	21030194084	SITI ZAHRA SALSABILAH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
26.	21030194086	FADIA MU'MINATUS SOLEKHA	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	100 %
Tanda Tangan Dosen / Asisten																			

D.1.2. Sample of statement of examination official report

(Scan Berita Acara Ujian Pengembangan Media Pembelajaran ICT)

D.2. SAMPLE OF STUDENT WORK

D.2.1. Sample of Test Paper

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,
RISET, DAN TEKNOLOGI
UNIVERSITAS NEGERI SURABAYA
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
JURUSAN KIMIA
Kampus Ketintang, Jalan Ketintang, Surabaya 60231
Telepon : +6231- 8298761, email: kimia@unesa.ac.id, Laman : http://kimia.fmipa.unesa.ac.id

SOAL UJIAN TENGAH SEMESTER GENAP 2023/2024

Mata Ujian	: Pengembangan Media Pembelajaran ICT
Jurusan/Fakultas	: Kimia / MIPA
Program/Angkatan	: Pendidikan Kimia/2021
Hari/ Tanggal	: Kamis. 14 Maret 2024
Jam	: 10.00 – 11.40 (100 menit pengerjaan + 20 menit upload jawaban)
Dosen	: Tim
Sifat Ujian	: Open books/Sources

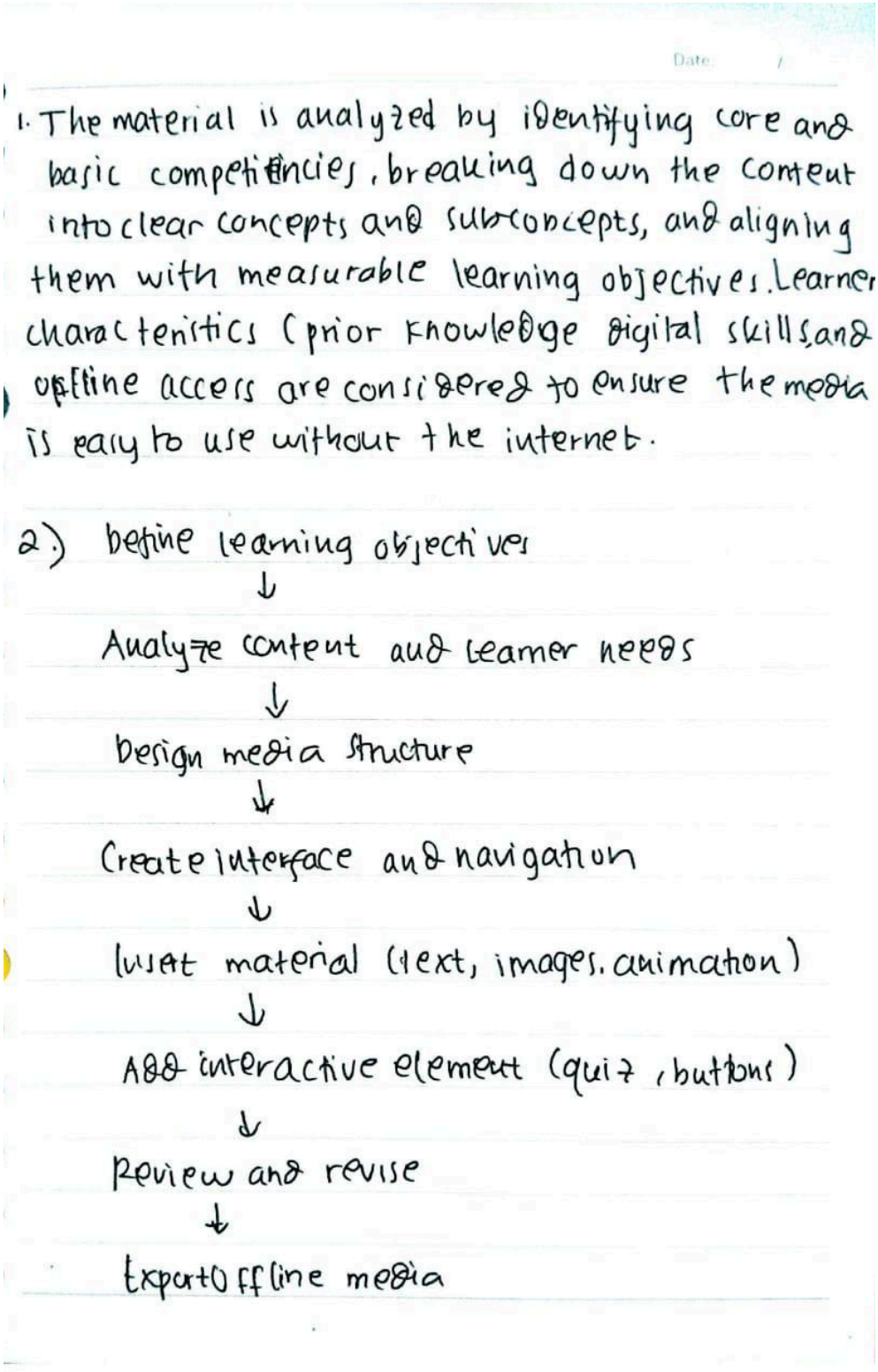
Petunjuk :
- Soal di bawah ini dikerjakan secara urut dan tidak perlu menuliskan kembali pertanyaan
- Jawaban diupload di: https://docs.google.com/forms/d/e/1FAIpQLScJjDi6X3fCq-1VuWAN9z4rQYNun6QG8wdINyIs6O8u_XKWHw/viewform
- Selamat mengerjakan, kami menghargai kejujuran dan semoga sehat selalu

Soal:
1. Berdasarkan pembagian materi yang telah dilakukan, lakukan analisis materi untuk mengembangkan media ICT secara offline! **(Nilai 30)**
2. Buatlah diagram alur media yang akan dikembangkan! **(Nilai 30)**
3. Kembangkan media berbasis ICT sesuai diagram alur yang telah anda susun! **(Nilai 40)**
   Upload media ICT di link yang tertulis di petunjuk!

---

www.unesa.ac.id | "Growing with character"

D.2.2. Sample of Student's Work



Date: /

1. The material is analyzed by identifying core and basic competencies, breaking down the content into clear concepts and subconcepts, and aligning them with measurable learning objectives. Learner characteristics (prior knowledge digital skills and offline access are considered to ensure the media is easy to use without the internet.

2.) Define learning objectives
↓
Analyze content and learner needs
↓
Design media structure
↓
Create interface and navigation
↓
Insert material (text, images, animation)
↓
Add interactive element (quiz, buttons)
↓
Review and revise
↓
Export offline media

Date: /

3.) The media is created using an offile platform, such as Powerpoint, designed with a simple interface and clear navigation. Key content is presented using brief explanation and supporting visuals. Interactive elements like clikable menus and offline quizzes are included to improve engagemet. After reviewing it accuracy and function the media is exported as a ppsx.

D.3. RECAPITULATION OF ASSESSMENT

D.3.1. Validate Test Item

The end-of-semester evaluation consists of three essay questions that are analyzed and validated by experts in the field of Chemistry Education and ICT-based learning media. The essay questions are reviewed through expert judgment from the course team members. The validation process considers several aspects, including the alignment of the questions with the course learning outcomes, the clarity and accuracy of language, the appropriateness of content related to ICT media development, and the construct validity of each question.

D.3.2 Evaluation Results of ICT Learning Media Development

PROGRAM STUDI S1 Pendidikan Kimia
DAFTAR NILAI MAHASISWA
Mata Kuliah : Pengembangan Media Pembelajaran ICT
Kelas : 2021P
Tahun Ajaran : 2023/2024 Genap

Original data :

Keterangan :
1. Komponen nilai yang diisi hanya : Part,Tugas,UTS dan UAS
2. Nilai UAS mahasiswa dengan kehadiran dibawah 73.3% (kolom dg warna merah) tidak akan disimpan
3. Jangan merubah apapun di dokumen ini kecuali pada point nomer satu di atas.
4. PPTI / BAAK tidak menerima file nilai untuk diupload. Proses upload nilai dilakukan oleh dosen pengampu yang bersangkutan.

No	NIM	Nama Mahasiswa	Angkatan	Kehadiran	Part	Tugas	UTS	UAS	NA	Huruf	Pakai
1	21030194002	REVANI PUTRI ISWAJI	2021	100%	85	87	92	90	88.5	A	1
2	21030194005	ALFINA NORMA AZIZAH	2021	100%	85	90	92	90	89.4	A	1
3	21030194006	LILY WIDYA SARI	2021	100%	83	90	88	87	87.3	A	1
4	21030194007	AFRILIA DWI ADELIANI	2021	100%	80	87	88	90	86.7	A	1
5	21030194011	PUTRI EGALITA SALSABILAH	2021	100%	80	95	88	87	88.2	A	1
6	21030194012	FIRDA NURRAMDANI PUTRI	2021	100%	85	87	88	90	87.7	A	1
7	21030194013	FAVIAN AGUNG DIFA' SASKARA	2021	100%	85	87	90	90	88.1	A	1
8	21030194014	ALIVIA PUTRI RYNI	2021	100%	80	90	88	87	86.7	A	1
9	21030194015	ANGGIK FEBRIANA	2021	100%	80	85	88	87	85.2	A	1
10	21030194017	SRI RENATA MAHARDHIKA	2021	100%	85	90	90	87	88.1	A	1
11	21030194019	KHOLIFATUL NAIMAH	2021	100%	80	87	88	87	85.8	A	1
12	21030194020	KHOLFINA FITROTIS SHOBAKHAH	2021	100%	80	87	88	90	86.7	A	1
13	21030194021	ALYA AQILAH ZAHRA	2021	100%	80	87	88	90	86.7	A	1
14	21030194026	NILA ZULFA IZZATI	2021	100%	85	85	92	90	87.9	A	1
15	21030194027	SITI ANDINI AJENG PRAMESTI	2021	100%	80	87	88	90	86.7	A	1
16	21030194030	CITRA DIA FADILAH	2021	100%	80	85	88	90	86.1	A	1
17	21030194034	RAHMANIA FITRAH SARI	2021	100%	80	87	88	90	86.7	A	1
18	21030194040	CINTANA HANUUN JANUARIZA	2021	100%	80	90	88	90	87.6	A	1
19	21030194043	SALSA SABRINA FAJAR MAULIDIAH	2021	100%	80	87	88	90	86.7	A	1
20	21030194046	MUHAMMAD SYAHRUL RAMADHANI	2021	100%	85	95	92	87	90	A	1
21	21030194047	MUHAMMAD HUSEIN ASHARI	2021	100%	80	87	90	87	86.2	A	1
22	21030194075	MENI FERONIKA TAINMETA	2021	100%	80	87	88	87	85.8	A	1
23	21030194078	FANIA FASYA REWANDA	2021	100%	80	85	88	90	86.1	A	1
24	21030194083	SALVIA SALSABILLA	2021	100%	80	95	88	87	88.2	A	1
25	21030194084	SITI ZAHRA SALSABILAH	2021	100%	80	85	88	90	86.1	A	1
26	21030194086	FADIA MU'MINATUS SOLEKHA	2021	100%	80	90	88	90	87.6	A	1

PROGRAM STUDI S1 Pendidikan Kimia
DAFTAR NILAI MAHASISWA
Mata Kuliah : Pengembangan Media Pembelajaran ICT
Kelas : 2021Q
Tahun Ajaran : 2023/2024 Genap

Original data :

Keterangan :

1. Komponen nilai yang diisi hanya : Part,Tugas,UTS dan UAS
2. Nilai UAS mahasiswa dengan kehadiran dibawah 73.3% (kolom dg warna merah) tidak akan disimpan
3. Jangan merubah apapun di dokumen ini kecuali pada point nomer satu di atas.
4. PPTI / BAAK tidak menerima file nilai untuk diupload. Proses upload nilai dilakukan oleh dosen pengampu yang bersangkutan.

No	NIM	Nama Mahasiswa	Angkatan	Kehadiran	Part	Tugas	UTS	UAS	NA	Huruf	Pakai
1	19030194087	AGUNG WIJAYA	2019	87.5%	78	85	85	85	83.6	A-	1
2	21030194050	SAIFATUN NUR HAFIDZAH Z	2021	100%	80	85	88	90	86.1	A	1
3	21030194053	MUHAMMAD SYAHRUL ABIDIN	2021	93.75%	85	87	90	87	87.2	A	1
4	21030194055	KHALIA ROSSIE	2021	100%	80	87	88	87	85.8	A	1
5	21030194058	YASINTA SALSABILAH RAMADANI	2021	100%	80	87	92	90	87.5	A	1
6	21030194060	SHAFNA NOR JANAH	2021	100%	80	85	91	90	86.7	A	1
7	21030194061	ANDINI PUTRI TANIA	2021	100%	80	85	92	90	86.9	A	1
8	21030194065	LIZA NURRAHMA DWI AGUSTIN	2021	100%	80	85	90	90	86.5	A	1
9	21030194066	YUNITA ANGGRAENI	2021	100%	80	88	88	87	86.1	A	1
10	21030194067	BERLIANA AFSOHIN NABILA	2021	100%	80	90	90	90	88	A	1
11	21030194068	MAHARANI DYAH ARUMSARI	2021	100%	80	87	90	90	87.1	A	1
12	21030194073	ASYA FIROSUL MA'WA	2021	100%	80	95	86	87	87.8	A	1

D.3.3 Percentage of PLO achievements of Physical Chemistry II at Academic Year 2023/2024

PLO ASSESMENT

Lecture : ICT Learning Media Development
Code : 8420402223
Department : S1 PENDIDIKAN KIMIA
Total Of Student : 37

	CPL07	CPL09	CPL10				
EXELENCE	100%	100%	100%				
GOOD	0%	0%	0%				
SATISFY	0%	0%	0%				
FAILED	0%	0%	0%				
Rata-rata skor	**87.4**	**87.5**	**86.4**