	Universitas Negeri Surabaya **Faculty of Economics and Business,** **Master of Economics Education Study Program**	**Document Code**

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date
Digital Accounting Learning	8710302099	Compulsory Study Program Subjects	T=2 P=0 ECTS=4.48	2	May 16, 2023

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	Dr. Agung Listiadi, S.Pd., M.Ak.	Prof. Dr. Hariyati, Ak., M.Si., CA.	Dwi Yuli Rakhmawati, S.Si., M.Si., Ph.D.

Learning model	**Case Studies**

Program Learning Outcomes (PLO)

PLO study program that is charged to the course

PLO-12	Faithful to God Almighty and able to uphold human values in carrying out duties based on religion, morals and ethics

Program Objectives (PO)

PO - 1	Have the ability to model various real problems, especially in the field of information and communication technology
PO - 2	Have the ability to implement computing techniques.
PO - 3	Have the ability to adapt and collaborate with other fields of science in the application and development of computing science
PO - 4	Able to communicate and interact positively both individually and within a multidisciplinary team
PO - 5	Have the awareness to always learn and be open to existing developments
PO - 6	Have an understanding of professional responsibilities and ethics.

PLO-PO Matrix

P.O	PLO-12
PO-1	
PO-2	
PO-3	
PO-4	
PO-5	
PO-6	

PO Matrix at the end of each learning stage (Sub-PO)

P.O	Week															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PO-1																
PO-2																
PO-3																
PO-4																
PO-5																
PO-6																

Short Course Description	This course studies the basics of computing in the financial field, such as financial market models, returns, risks, asset pricing models, financial products and computing in investment management.

References	**Main :**	

	1. Capi´nski, M. and Zastawniak, T. Finance: An Introduction to Financial Engineering. London: Springer-Verlag, 2003 2. Wilmott, Paul. Introduces Quantitative Finance Second Edition. Chichester: John WIley & Sons, Ltd, 2007 3. Higham D.J, “An Introduction to Financial Option Valuation”, Cambridge University Press, 2004
	Supporters:
	1. Hakim L. 2021. Efektivitas Penggunaan Laboratorium Virtual terhadap Hasil Belajar Mahasiswa pada Mata Kuliah Perpajakan Pokok Bahasan PPh Pasal 21 (Penelitian Kebijakan FEB Unesa Dana PNBP 2021)
Supporting lecturer	Prof. Dr. Hariyati, Ak., M.Si., CA. Dr. Agung Listiadi, S.Pd., M.Ak.

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	Able to explain the scope of problems in financial computing, and provide examples of financial products along with explanations.	Accuracy in identifying financial computing problems, and providing examples of financial products along with explanations. Accuracy in recognizing various types of market financial data	**Criteria:** Non test: Explains the scope of problems in financial computing, and provides examples of financial products along with explanations **Form of Assessment** : Participatory Activities	Lectures, discussions, examples 2 X 50	Lectures, discussions, examples 2 X 50	**Material:** Financial computing and financial products, various types of financial market data. **Reference:** *Capi nski, M. and Zastawniak, T. Finance: An Introduction to Financial Engineering. London: Springer-Verlag, 2003*	3%
2	Able to explain the scope of problems in financial computing, and provide examples of financial products along with explanations.	1.Accuracy in identifying financial computing problems, and providing examples of financial products along with explanations 2.Accuracy in recognizing various types of market financial data	**Criteria:** Non test: Explains the scope of problems in financial computing, and provides examples of financial products along with explanations **Form of Assessment** : Participatory Activities, Portfolio Assessment	Lectures, discussions, examples 2 X 50	Lectures, discussions, examples 2 X 50	**Material:** Financial computing and financial products, various types of financial market data. **Reference:** *Capi nski, M. and Zastawniak, T. Finance: An Introduction to Financial Engineering. London: Springer-Verlag, 2003*	3%
3	Able to explain the picture of financial exchanges and the legal bodies that regulate their regulations	Accurately explains the picture of the financial exchange and its regulations in Indonesia.	**Criteria:** Non test: Able to explain the picture of the financial exchange and the legal bodies that regulate its regulations **Form of Assessment** : Participatory Activities, Practice/Performance	Lectures, discussions, examples 2 X 50	Lectures, discussions, examples 2 X 50	**Material:** Overview of financial exchanges and the legal bodies that regulate their regulations. **Reference:** *Higham DJ, "An Introduction to Financial Option Valuation", Cambridge University Press, 2004*	3%

4	Able to analyze assumptions in financial mathematical models.	1. Accuracy of analyzing assumptions in financial mathematical models 2. Accuracy in calculating return and risk	**Criteria:** Non test: Analyzing assumptions in financial mathematical models **Form of Assessment** : Participatory Activities	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	**Material:** assumptions in financial mathematical models **Reference:** *Hakim L. 2021. Effectiveness of Using Virtual Laboratories on Student Learning Outcomes in Taxation Subjects PPh Article 21 (Research on FEB Unesa PNBP Fund Policy 2021)*	3%
5	Able to explain the basic concepts of interest rates and identify their use for application examples	Accuracy of explaining and applying the concept of interest rates (simple, compound, and continuous) for perpetuities, annuities, and investment return measures	**Criteria:** Non test: Explain the basic concepts of interest rates and identify their use for application examples **Form of Assessment** : Participatory Activities, Portfolio Assessment	lectures, discussions, case examples 2 X 50	lectures, discussions, case examples 2 X 50	**Material:** basic concepts of interest rates and identifying their use for application examples **References:** *Wilmott, Paul. Introductions to Quantitative Finance Second Edition. Chichester: John WIley & Sons, Ltd, 2007*	3%
6	Able to apply the concept of interest rates to compute riskless asset values	Accuracy in applying the concept of interest rates in bond calculations. Able to present simulation results of price calculations for Indonesian bond instruments	**Criteria:** Non test: Able to apply the concept of interest rates to compute the value of non-risky assets **Form of Assessment** : Participatory Activities, Practice/Performance	Lectures, discussions, presentations 2 X 50	Lectures, discussions, presentations 2 X 50	**Material:** The concept of interest rates for computing the value of riskless assets. **Reference:** *Higham DJ, "An Introduction to Financial Option Valuation", Cambridge University Press, 2004*	3%
7	Able to apply the concept of interest rates to compute riskless asset values	Accuracy in applying the concept of interest rates in bond calculations. Able to present simulation results of price calculations for Indonesian bond instruments	**Criteria:** Non test: Able to apply the concept of interest rates to compute the value of non-risky assets **Form of Assessment** : Participatory Activities, Practice/Performance	Lectures, discussions, presentations 2 X 50	Lectures, discussions, presentations 2 X 50	**Material:** The concept of interest rates for computing the value of riskless assets. **Reference:** *Higham DJ, "An Introduction to Financial Option Valuation", Cambridge University Press, 2004*	3%
8		Midterm Exam (UTS)	**Criteria:** Midterm Exam (UTS) **Form of Assessment** : Test	Midterm Exam (UTS) 2 X 50	Midterm Exam (UTS) 2 X 50	**Material:** - **Library:**	20%

9	Able to explain the characteristics and dynamics of risky assets, and able to determine the size of return and risk	Accuracy in explaining the dynamic phenomenon of risky asset prices, Able to mention examples of risky assets, Skill in calculating expected returns and risks from risky assets	**Criteria:** Non test: Explains the characteristics and dynamics of risky assets, and is able to determine the size of return and risk. **Forms of Assessment** : Participatory Activities, Portfolio Assessment, Practice / Performance	Lectures, discussions 2 X 50	Lectures, discussions 2 X 50	**Material:** Explain the characteristics and dynamics of risky assets, and be able to determine the size of return and risk. **References:** *Higham DJ, "An Introduction to Financial Option Valuation", Cambridge University Press, 2004*	7%
10	Able to explain and be able to simulate risky asset prices with a continuous model of asset prices.	Accuracy in explaining risky asset price behavior Skill in presenting risky asset price simulation results using a continuous model	**Criteria:** Non test: Able to explain and simulate risky asset prices using a continuous asset price model **Forms of Assessment** : Participatory Activities, Portfolio Assessment, Practice / Performance	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	**Material:** Able to explain and be able to simulate risky asset prices using a continuous asset price model. **Reference:** *Capi nski, M. and Zastawniak, T. Finance: An Introduction to Financial Engineering. London: Springer-Verlag, 2003*	3%
11	Able to explain and be able to simulate risky asset prices with a continuous model of asset prices.	Accuracy in explaining risky asset price behavior Skill in presenting risky asset price simulation results using a continuous model	**Criteria:** Non test: Able to explain and simulate risky asset prices using a continuous asset price model **Forms of Assessment** : Participatory Activities, Portfolio Assessment, Practice / Performance	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	**Material:** Able to explain and be able to simulate risky asset prices using a continuous asset price model. **Reference:** *Capi nski, M. and Zastawniak, T. Finance: An Introduction to Financial Engineering. London: Springer-Verlag, 2003*	3%
12	Able to explain and be able to simulate risky asset prices with a continuous model of asset prices	Accuracy in explaining risky asset price behavior Skill in presenting risky asset price simulation results using a continuous model	**Criteria:** Non test: Able to explain and simulate risky asset prices using a continuous asset price model **Form of Assessment** : Participatory Activities, Portfolio Assessment	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	**Material:** Explaining and simulating risky asset prices using a continuous model of asset prices. **References:** *Wilmott, Paul. Introductions to Quantitative Finance Second Edition. Chichester: John WIley & Sons, Ltd, 2007*	3%

13	Able to explain and be able to simulate risky asset prices with a continuous model of asset prices	Accuracy in explaining risky asset price behavior Skill in presenting risky asset price simulation results using a continuous model	**Criteria:** Non test: Able to explain and simulate risky asset prices using a continuous asset price model **Form of Assessment** : Participatory Activities, Portfolio Assessment	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	**Material:** Explaining and simulating risky asset prices using a continuous model of asset prices. **References:** *Wilmott, Paul. Introductions to Quantitative Finance Second Edition. Chichester: John WIley & Sons, Ltd, 2007*	3%
14	Able to explain and be able to simulate risky asset prices with a continuous model of asset prices	Accuracy in explaining risky asset price behavior Skill in presenting risky asset price simulation results using a continuous model	**Criteria:** Non test: Able to explain and simulate risky asset prices using a continuous asset price model **Forms of Assessment** : Participatory Activities, Portfolio Assessment, Practice / Performance	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	**Material:** Explaining and simulating risky asset prices using a continuous model of asset prices. **References:** *Wilmott, Paul. Introductions to Quantitative Finance Second Edition. Chichester: John WIley & Sons, Ltd, 2007*	3%
15	Able to explain and be able to simulate risky asset prices with a continuous model of asset prices	Accuracy in explaining risky asset price behavior Skill in presenting risky asset price simulation results using a continuous model	**Criteria:** Non test: Able to explain and simulate risky asset prices using a continuous asset price model **Forms of Assessment** : Participatory Activities, Portfolio Assessment, Practice / Performance	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	Lectures, Cooperative Learning, Analyzing case studies related to 2 X 50 study materials	**Material:** Explaining and simulating risky asset prices using a continuous model of asset prices. **References:** *Wilmott, Paul. Introductions to Quantitative Finance Second Edition. Chichester: John WIley & Sons, Ltd, 2007*	7%
16	FINAL SEMESTER EXAMINATION (UAS)	FINAL SEMESTER EXAMINATION (UAS)	**Criteria:** FINAL SEMESTER EXAMINATION (UAS) **Form of Assessment** : Test	FINAL SEMESTER EXAMINATION (UAS) 2 X 50	FINAL SEMESTER EXAMINATION (UAS) 2 X 50	**Material:** - **Library:**	30%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	24.16%
2.	Portfolio Assessment	13.66%
3.	Practice / Performance	12.16%
4.	Test	50%
		99.98%

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** 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 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.