	Universitas Negeri Surabaya Faculty of Sports and Health Sciences Bachelor of Sports Science Study Program	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Sports Technology	8920102173		T=2	P=0	ECTS=3.18	3	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	.....	.....	Dr. Heri Wahyudi, S.Or., 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

	P.O

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

Short Course Description	This course is an introduction, learning/teaching, development, implementation and evaluation of sports technology, the scope of sports technology, sports health technology, sports facilities and infrastructure and the development of sports technology
References	**Main :**

1. Thompson, G, 2001, 1CSports Technology 1D, Nelson Library, Australia
2. Ross, S, 2010, 1CSports Technology 1D, Evan Brothers Limited, London
3. Fridell,R, 2009, 1CSports Technology-Cool Science 1D, Lerner, London
4. Fuss, K., Subic, A., Strangwood, M., Mehta, R., 2014, 1CRoutledge Handbook of Sports Technology and Engineering

	Supporters:
Supporting lecturer	Anna Noordia, S.TP., M.Kes. Dr. Roy Januardi Irawan, S.Or., M.Kes. Yetty Septiani Mustar, S.KM., M.P.H. A Burhanuddin Kusuma Nugraha, S.Pd., M.Kes.

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	Understanding the history and development of Sports Technology	1. Able to understand the history and development of sports technology 2. Able to explain the history and development of sports technology 3. Able to apply the history and development of sports technology	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, Discussions, Questions and Answers 2 X 50			0%

2	Understanding of the sports industry and its development.	1. Understand the sports industry and its development 2. Able to explain the sports industry and its development 3. Able to apply an understanding of the sports industry and its development	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, Discussions, Questions and Answers 2 X 50			0%

3	Understanding of technological developments in sports equipment and support in the Running (Athletics) branch	1. Able to understand the development of equipment technology and sports support in running (athletics) 2. Able to explain the development of equipment technology and sports support in running (athletics) 3. Able to implement technological developments in sports equipment and support in running (athletics)	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

4	Understanding of technological developments in sports equipment and support in Jumping (Athletics)	1. Able to understand the development of equipment technology and sports support in Jumping (Athletics) 2. Able to explain the development of equipment technology and sports support in Jumping (Athletics) 3. Able to implement the implementation of technological developments in sports equipment and support in Jumping (Athletics)	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

5	Understanding of technological developments in sports equipment and support in Throwing (Athletics)	1. Able to understand the development of equipment technology and sports support in throwing (athletics) 2. Able to explain the development of equipment technology and sports support in throwing (athletics) 3. Able to apply technological developments in sports equipment and support in throwing (athletics)	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

6	Understanding of technological developments in sports equipment and support in the branch of football	Able to understand the development of equipment technology and sports support in the branch of football	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

7	Understanding of technological developments in sports equipment and support in badminton	1. Able to understand the development of equipment technology and sports support in badminton 2. Able to explain the development of equipment technology and sports support in badminton 3. Able to apply technological developments in sports equipment and support in badminton	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

8	Understanding of technological developments in sports equipment and support in the field of tennis	1. Able to understand technological developments in sports equipment and support in the field of tennis 2. Able to explain the development of equipment technology and sports support in the field of tennis 3. Able to apply ethical developments in equipment technology and sports support in the field of tennis	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%
9	Midterm exam			2 X 50			0%

10	Understanding of technological developments in sports equipment and support in combat sports	1. Able to understand the development of equipment technology and sports support in combat sports 2. Able to explain the development of equipment technology and sports support in combat sports 3. Able to apply technological developments in sports equipment and support in combat sports	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

11	Understanding of technological developments in sports equipment and support in basketball	1. Able to understand technological developments in sports equipment and support in basketball 2. Able to explain the development of sports equipment and support technology in basketball 3. Able to apply the ethics of technological development of sports equipment and support in the sport of basketball	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

12	Understanding of technological developments in sports equipment and support in water sports	1. Able to understand technological developments in sports equipment and support in water sports 2. Able to explain the development of sports equipment and support technology in water sports 3. Able to apply ethical developments in equipment technology and sports support in water sports	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

13	Understanding of technological developments in sports equipment and support in cycling sports	1. Able to understand the development of equipment technology and sports support in cycling sports 2. Able to explain the development of equipment technology and sports support in cycling sports 3. Able to apply ethical developments in equipment technology and sports support in cycling sports	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

14	Understanding of technological developments in equipment and sports support in the Paralympic Games	1. Able to understand technological developments in equipment and sports support in the Paralympic Games 2. Able to explain technological developments in equipment and sports support in the Paralympic Games 3. Able to apply ethical developments in equipment technology and sports support in the Paralympic Games	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

15	Understanding of technological developments in aerospace sports equipment and support	1. Able to understand technological developments in aerospace sports equipment and support 2. Able to explain the development of aerospace sports equipment and support technology 3. Able to apply ethics in technological development of equipment and support for aerospace sports	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			0%

16	Understanding current and future technological developments in the world of Health and Sports Science	1. Able to understand current and future technology in the world of Health and Sports Science 2. Able to explain current and future technology in the world of Health and Sports Sciences 3. Able to apply technology ethics in the world of health and sports science today and in the future	**Criteria:** 1. The assessment is carried out on the following aspects: 2. Participation during lectures and peer teaching is carried out through observation (weight 2) Subsummative tests (UTS) are carried out once with indicators 1-7 through written exams and are given weight (2) Written test assessments in peer teaching and practicum are considered as assignments, the scores are averaged , then given a weight (3) The final exam score is done in writing with indicators 9-16 given a weight of (3) The final NA is (participation score x2) (task score x 3) (UTS score x 2) UAS score (3) divided by 10 subsummative exam results (UTS) is given a weight of 2. Final Semester Examination (UAS) results are given a weight of 3	Lectures, discussions, questions and answers 2 X 50			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.