<table>
<tr><td>Module designation</td><td>Probability Theory
Indonesian title: Teori Peluang
Course code: 8420202004</td></tr>
<tr><td>Semester(s) in which the module is taught</td><td>Semester 5 (Third year)</td></tr>
<tr><td>Person responsible for the module</td><td>Coordinator: Dr. Ismail, M.Pd.
Teaching staff: Dr. Ismail, M.Pd.; Affiati Oktaviarina, S.Si., M.Sc.; A'yunin Sofro, M.Si., Ph.D.; Nina Rinda Prihartiwi, S.Pd., M.Pd.</td></tr>
<tr><td>Language</td><td>Indonesian</td></tr>
<tr><td>Relation to curriculum</td><td>Compulsory</td></tr>
<tr><td>Teaching methods</td><td>Lectures, tutorial assignments, and individual study
Media and tools: Slides and LCD projectors, whiteboard</td></tr>
<tr><td>Workload (incl. contact hours, self-study hours)</td><td>(Estimated) total workload: 2 CU × 170 minutes × 16 weeks = 5,440 minutes = 90.67 hours (≈ 3.18 ECTS)
Contact hours: lectures, 2 × 50 minutes per week × 16 weeks = 26.67 hours (class hours per week: 340 minutes = 5.67 hours, including structured activities)
Private study including examination preparation: structured assignments, 2 × 60 minutes per week × 16 weeks = 32.00 hours; independent study, 2 × 60 minutes per week × 16 weeks = 32.00 hours (total 64.00 hours)</td></tr>
<tr><td>Credit points</td><td>2 CU (3.18 ECTS)
1 CU = 170 minutes per week × 16 weeks = 45.3 hours; 1 ECTS = 28.48 hours (144 CU = 229 ECTS), so 1 CU = 1.59 ECTS (UNESA Rector's Decree No. 736/HK/KM/2023).</td></tr>
<tr><td>Required and recommended prerequisites for joining the module</td><td>Integral Calculus</td></tr>
<tr><td>Module objectives/intended learning outcomes</td><td>Programme learning outcomes (PLO) addressed:
PLO-5: Apply the basic principles of mathematics to solve simple mathematical problems.
PLO-6: Demonstrate mathematical knowledge and insight.</td></tr>
<tr><td>Content</td><td>Studying probability theory, random variables and probability distributions, mathematical expectations, several discrete probability distributions, and several continuous probability distributions, as well as their applications in statistical problems</td></tr>
<tr><td>Examination forms</td><td>Final score is calculated from the weekly assessment scheme below (CLO/PLO addressed and weight of each assessment):
<table>
<tr><th>Week</th><th>CLO</th><th>PLO</th><th>Weight (%)</th></tr>
<tr><td>1</td><td>CLO-1</td><td>PLO-6</td><td>5</td></tr>
<tr><td>2</td><td>CLO-1</td><td>PLO-6</td><td>5</td></tr>
<tr><td>3</td><td>CLO-5</td><td>PLO-6</td><td>10</td></tr>
<tr><td>4</td><td>CLO-2</td><td>PLO-5</td><td>10</td></tr>
<tr><td>5</td><td>CLO-2</td><td>PLO-5</td><td>10</td></tr>
<tr><td>6</td><td>CLO-3</td><td>PLO-6</td><td>5</td></tr>
<tr><td>7</td><td>CLO-3</td><td>PLO-6</td><td>5</td></tr>
<tr><td>8</td><td>CLO-3</td><td>PLO-6</td><td>5</td></tr>
<tr><td>9</td><td>CLO-4</td><td>PLO-5</td><td>10</td></tr>
</table></td></tr>
</table>

10	CLO-4	PLO-5	5
11	CLO-4	PLO-5	5
12	CLO-4	PLO-5	5
13	CLO-4	PLO-5	5
14	CLO-4	PLO-5	5
15	CLO-4	PLO-5	5
16	CLO-4	PLO-5	5

Study and examination requirements

Students are considered competent and pass if the final score is at least 55 or C.

Final index (grade conversion):

Index	Converted score	Score range (A = final score)
A	4.00	85 ≤ A ≤ 100
A-	3.75	80 ≤ A < 85
B+	3.50	75 ≤ A < 80
B	3.00	70 ≤ A < 75
B-	2.75	65 ≤ A < 70
C+	2.50	60 ≤ A < 65
C	2.00	55 ≤ A < 60
D	1.00	40 ≤ A < 55
E	0.00	0 ≤ A < 40

Reading list

1. Walpole, R. E. dan Myers, R. H. 2012. Ilmu Peluang dan Statistika untuk Insinyur dan IlmuwanTerjemahan. Bandung: ITB.
2. Hogg, R. V. & Craig, A. T. 2012. Introduction to Mathematical Statistics 7th Edition. New York: MacMilan Publishing Co. Inc.