



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Mathematics Department

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Undergraduate Program in Statistics

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MODULE HANDBOOK

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| Module name | Analisis Data Kategorik (Categorical Data Analysis) |
| Module level, if applicable | Bachelor |
| Code, if applicable | MMS-2426 |
| Subtitle, if applicable | - |
| Courses, if applicable | Analisis Data Kategorik (Categorical Data Analysis) |
| Semester(s) in which the module is taught | 4 / second year |
| Person responsible for the module | Zulaela, Drs., Dipl.Med.Stats., M.Si. |
| Lecture(s) | Zulaela, Drs., Dipl.Med.Stats., M.Si. |
| Language | Bahasa Indonesia |
| Classification within the Curriculum | Elective course |
| Teaching format /class hours per week during the semester: | 2 hours lecture and 2 hours laboratory session |
| Workload | <ul style="list-style-type: none"> • 2 hours lecture+ 4 hours individual study, 14 weeks lecture per semester, • 2 hours laboratory session + 2 hours individual study, 10 weeks laboratory session per semester, • total 152 hours a semester |
| Credit points | 3 |
| Requirements | MMS-1409 Metode Statistika II (Statistical Methods II) |
| Module objectives/intended learning outcomes | After completing this course, the students should be able to: CO 1. Test hypotheses for categorical data summarised in an $r \times c$ contingency table. CO 2. Explain the basis for developing the best logistic regression model. CO 3. Analyse a real data set and interpret the output of statistical software in a correct way. |
| Content | The teaching materials consist of two-way contingency tables, goodness-of-fit test, types of study design, measures of association, simple and multiple logistic regression, and model-building strategies. |
| Study and examination requirements and forms of examination | The weight of assignments will be as follows: <ol style="list-style-type: none"> 1. Quiz, home work, laboratory work 30% 2. Mid semester exam 35% 3. Final exam 35% Grade scale: <ul style="list-style-type: none"> ➤ A $85 \leq \text{score} \leq 100$ ➤ A/B $75 \leq \text{score} < 85$ ➤ B $60 \leq \text{score} < 75$ ➤ B/C $50 \leq \text{score} < 60$ ➤ C $40 \leq \text{score} < 50$ ➤ D $20 \leq \text{score} < 40$ ➤ E $\text{score} < 20$ |
| Media employed | Computer and LCD projectors, whiteboards |

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| Reading List | <ol style="list-style-type: none"> 1. Agresti, A. 1990. <i>Categorical Data Analysis</i>. John Wiley & Sons. New York. 2. Freeman, D.H.Jr. 1987. <i>Applied Categorical Data Analysis</i>. Marcel Dekker. New York. 3. Hosmer, D.W. & Lemeshow, S. 1989. <i>Applied Logistic Regression</i>. John Wiley & Sons. New York. 4. Zulaela. 2016. <i>Modul Praktikum Analisis Data Kategorik</i>. FMIPA UGM. Yogyakarta. |
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CO and PLO mapping

| | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 |
|------|-------|-------|-------|-------|-------|-------|-------|
| CO 1 | | x | | | | | |
| CO 2 | | x | | | | | |
| CO 3 | | | x | x | | | |