## Module Handbook

**Module name**: Pengantar Statistika Matematika I (Introduction to Math Statistics)  
**Module level**, if applicable: Bachelor  
**Code**, if applicable: MMS-2420  
**Subtitle**, if applicable: -  
**Courses**, if applicable: -  
**Semester(s) in which the module is taught**: 3rd Semester  
**Person responsible for the module**: Dr. Abdurakhman  
**Lecture(s)**: Dr. Abdurakhman  
**Language**: Bahasa Indonesia  
**Classification within the Curriculum**: Compulsory course/ Elective Studies  
**Teaching format/class hours per week during the semester**: 3 hours lecture  
**Workload**: 3 hours lectures, 6 hours individual study, 14 weeks per semester, and total 126 hours a semester  
**Credit points**: 3  
**Requirements**: MMS-1102 Kalkulus 2

### Module objectives/intended learning outcomes

By the end of this course:

- CO 1. Students are able to understand and explain mathematically the probability distribution and characteristic properties  
- CO 2. Students are able to explain the mathematical formulas that find the value of the moment of a random variable distribution  
- CO 3. Students are able to apply theory mathematics statistics to estimate the data

### Content

- Probability space; Probability and Conditional Probability, Random Variables, Independence; Distributions: Binomial, Poisson, Hypergeometric, Normal, Log Normal, Dist-t, Exponential, Cauchy, Weibull, Distribusi-F, Khi-Kuadrat, dll;  
- Moment Generating Function, Likelihood function: Level of this lecture is from knowledge until application however the weighting of this lecture is more knowledge

### Study and examination requirements and forms of examination

The weight of assignments will be as follows:

- i. Quiz, homework, group discussion: 25%
- ii. Mid semester exam: 35%
- iii. Final exam: 40%

Grade scale:

- A: 85<score≤100
- A-: 80<score≤85
A/B: 75<score≤80
B+: 70<score≤75
B: 65<score≤70
B-/C: 60<score≤65
B/C: 55<score≤60
C+: 50<score≤55
C: 45<score≤50
C-/D: 40<score≤45
C/D: 35<score≤40
D+: 30<score≤35
D: 20<score≤30
E: 0≤score≤20

Media employed: Slides and LCD projectors, Blackboards

Reading List:
- Abdurakhman, 2015, Handout Mata kuliah

CO and PLO mapping

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