

UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences Mathematics Department

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MODULE HANDBOOK

| Module name | Pengantar Manajemen Investasi (Introduction to Investment Management) | | | | | | |
|------------------------------|--|--|--|--|--|--|--|
| Module level, if applicable | Bachelor | | | | | | |
| Code, if applicable | MMS-3433 | | | | | | |
| Subtitle, if applicable | - | | | | | | |
| Courses, if applicable | - | | | | | | |
| Semester(s) in which the | 6 th Semester | | | | | | |
| module is taught | o Semester | | | | | | |
| Person responsible for the | Dr. Abdurakhman | | | | | | |
| module | | | | | | | |
| Lecture(s) | Dr. Abdurakhman | | | | | | |
| Language | Bahasa Indonesia | | | | | | |
| Classification within the | Compulsory course/ Elective Studies | | | | | | |
| Curriculum | | | | | | | |
| Teaching format /class | 3 hours lecture | | | | | | |
| hours per week during the | | | | | | | |
| semester: | | | | | | | |
| Workload | 3 hours lectures, 6 hours individual study, 14 weeks per semester, | | | | | | |
| | and total 126 hours a semester | | | | | | |
| Credit points | 3 | | | | | | |
| Requirements | MMS-1405 Matematika Finansial I | | | | | | |
| Module objectives/intended | By the end of this course : | | | | | | |
| learning outcomes | CO.1. Students are able to apply portfolio weighting and option pricing formulas | | | | | | |
| | CO.2. Students are able to evaluate the optimal portfolio weights | | | | | | |
| Content | Contents of this lecture consist of: | | | | | | |
| | 1. Introduction to investment and types of return | | | | | | |
| | 2. General random variable for return of portfolio | | | | | | |
| | 3. Simple methods of portfolio: Mean-variance and CAPM | | | | | | |
| | 4. Trading portfolio and analysis of performance5. Option : European and American, Call and Put | | | | | | |
| | | | | | | | |
| | 6. Volatility, Black Scholes (BS) and Binomial model | | | | | | |
| | 7. Performance analysis of BS in Market | | | | | | |
| | Level of this lecture is from knowledge until application however the | | | | | | |
| | weighting of this lecture is more knowledge | | | | | | |
| Study and xamination | The weight of assignments will be as follows: | | | | | | |
| requirements and forms of | i. Quiz, homework 10% | | | | | | |
| examination | ii. Group discussion 15% | | | | | | |
| | iii. Mid semester exam 35% | | | | | | |
| | iv. Final exam 40% | | | | | | |
| Grade scale: | | | | | | | |
| | A $85 \le \text{score}$ | | | | | | |
| | A/B $75 \le \text{score} < 85$ | | | | | | |
| | B $60 \le \text{score} < 75$ | | | | | | |
| | B/C $50 \le \text{score} \le 60$ | | | | | | |
| C $40 \le \text{score} < 50$ | | | | | | | |
| | D $20 \le \text{score} \le 40$ | | | | | | |

| | E score < 20 | | | | |
|----------------|--|--|--|--|--|
| Media employed | Slides and LCD projectors, blackboards | | | | |
| Reading List | 1. An Introduction to Financial option Valuation, Mathematics, Stochastics and | | | | |
| | Computation, Second Edition, Cambridge University Press 2004. | | | | |
| | 2. John C Hull, Options, Futures, and Other Derivatives, Sixth Edition, Prentice | | | | |
| | Hall, 2005. | | | | |

CO and PLO mapping

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