SYLLABUS

Date/Revision	21 November2016
Faculty	Business and Social Sciences
Approval	Dr. Samuel Prasetya

SUBJECT: INVESTMENT ANALYSIS & PORTFOLIO

1. Identification of Subject:

Name of Subject	:	Investment Analysis & Portfolio
Code of Subject	:	INAP-3000
SKS/ECTS	:	3/5
Semester	:	4
Study Program	:	MGT/IBA
Lecturer	:	Dr. Satiri, MM, MBA

2. Competency

After having the course, students are expected to:

a) Develop portfolio analysis
b) Understand the models of equilibrium in the capital markets
c) Understand the security and portfolio theory
d) Be able to evaluate the investment process
e) Be able to build work ethic and persistence; empathy for classmates and decision makers; social awareness of the consequences of decisions and the challenging context for decision makers; and accountability for one's work.

3. Description of Subject:

The main topics to be covered are:

* Financial securities
* Financial markets
* The characteristic of opportunity set under risk
* Delineating efficient portfolios
* Techniques for calculating the efficient frontier
* The correlation structure of security returns—the single-index model
* The correlation structure of security returns—multi-index model and grouping techniques
* Simple techniques for determining the efficient frontier
* Estimating expected returns
* How to select among the portfolio in the opportunity set
* International diversification
* Nonstandard forms of capital asset pricing models
* Empirical tests of equilibrium models

- The arbitrage pricing model apt—a multifactor approach to explaining asset prices
- Efficient markets
- The valuation process
- Earnings estimation
- Behavioral finance, investor decision making, and asset prices
- Interest rate theory and the pricing of bonds
- The management of bond portfolios
- Option pricing theory
- The valuation and uses of financial future
- Mutual funds
- Evaluation of portfolio performance
- Evaluation of security analysis
- Portfolio management revisited

4. Learning Approach

Approach	:	Combination of Expository - inquiry and collaborative
Method	:	Discussion, question answer, sample problem
Student Task	:	Problem Solving, Quiz
Media	:	LCD projector, Black/White Board

5. Evaluation

Maximum absences	:	25%
Projects (individual & group)	:	20 points
Presentation	:	10 points
Quizzes	:	10 points
Final Examination	:	60 points
Total	:	100 points

6. Contents/Topics of Lecturing

Week	Topics	Content	Remarks
1	**Financial securities and Financial markets**	- Types of marketable financial securities - The return characteristics of alternative security types - Stock market indexes - Bond market indexes - Trading mechanics - Margin and markets - Trade types and costs	Group formation Group Topic selections for Group writing project
2	**The characteristics of the opportunity set under risk & delineating efficient portfolios**	- Determining the Average Outcome - A Measure of Dispersion - Variance of Combinations of Assets - Characteristics of Portfolios in General	

Week	Topics	Content	Remarks
		• Combinations of Two Risky Assets Revisited: Short Sales Not Allowed • The Shape of the Portfolio Possibilities Curve • The Efficient Frontier with Riskless Lending and Borrowing • Examples and Applications	
3	**Techniques for calculating the efficient frontier & the correlation structure of security returns: the single-index model**	• Short sales allowed with riskless lending and borrowing • Short sales allowed: no riskless lending and borrowing • Riskless lending and borrowing with short sales not allowed • No short selling and no riskless lending and borrowing • The incorporation of additional constraints • The inputs to portfolio analysis • Single-index models: an overview • Characteristics of the single-index model • Estimating beta • The market model	**Quiz 1**
4	**The correlation structure of security returns: multi-index models and grouping techniques & simple techniques for determining the efficient frontier**	• Multi-index models • Average correlation models • Mixed models • Fundamental multi-index models • The single-index model • Security selection with a purchasable index • The constant correlation model • Other return structures	
5	**International diversification & estimating expected returns**	• The world portfolio • Calculating the return on foreign investments • The risk of foreign securities • Returns from international diversification • The effect of exchange risk • Return expectations and portfolio performance • Other evidence on internationally diversified portfolios	**Quiz 2**

Week	Topics	Content	Remarks
		• Models for managing international portfolios • Aggregate asset allocation • Forecasting individual security returns • Portfolio analysis with discrete data	
6	**How to select among the portfolios in the opportunity set & the standard capital asset pricing model**	• Choosing directly • An introduction to preference functions • Risk tolerance functions • Safety first • Maximizing the geometric mean return • Value at risk (VaR) • Utility and the equity risk premium • Optimal investment strategies with investor liabilities • Liabilities and safety-first portfolio selection • Simulations in portfolio choice • The assumptions underlying the standard Capital Asset • Pricing model (CAPM) • The Capital Asset Pricing Model • Prices and the CAPM	
7	**Evaluation from previous discussion and chapters**		
8	**Semester break**		
9	**Nonstandard forms of capital asset pricing models & empirical tests of equilibrium models**	• Short sales disallowed • Modifications of riskless lending and borrowing • Personal taxes • Nonmarketable assets • Heterogeneous expectations • Non-price-taking behavior • Multi-period CAPM • The consumption-oriented CAPM • Inflation risk and equilibrium • The multi-beta CAPM • The models—ex-ante expectations and ex-post tests • Empirical tests of the CAPM • Testing some alternative forms of the	**Draft III**

Week	Topics	Content	Remarks
		CAPM model • Testing the post-tax form of the CAPM model • Some reservations about traditional tests of general equilibrium relationships and some new research	
10	**The arbitrage pricing model APT—A multifactor approach to explaining asset prices & efficient markets**	• APT—what is it? • Estimating and testing APT • APT and CAPM • Recapitulation • Some background • Tests of return predictability • Announcement and price return • Methodology of event studies • Strong-form efficiency • Market rationality	**Quiz 3**
11	**Valuation process & earnings estimation**	• Discounted cash flow models • Cross-sectional regression analysis • An ongoing system • The elusive number called earnings • The importance of earnings • Characteristics of earnings and earnings forecasts	
12	**Behavioral finance, investor decision making, and asset prices & interest rate theory and the pricing of bonds**	• Prospect theory and decision making under uncertainty • Biases from laboratory experiments • Summary of investor behavior • Behavioral finance and asset pricing theory • An introduction to debt securities • The many definitions of rates • Bond prices and spot rates • Determining spot rates • The determinants of bond prices	**Quiz 4**
13	**The management of bond portfolios & option pricing theory**	• Duration • Protecting against term structure shifts • Bond portfolio management of yearly returns • Swaps • Types of options • Some basic characteristics of option	

Week	Topics	Content	Remarks
		values • Valuation models • Artificial or homemade options • Uses of option	
14	**Evaluation of portfolio performance & evaluation of security analysis**	• Evaluation techniques • A manipulation-proof performance measure • Decomposition of overall evaluation • Multi-index, apt, and performance evaluation • Mutual fund performance • Why the emphasis on earnings? • The evaluation of earnings forecasts • Evaluating the valuation process	**Quiz 5**
15	**Review chapters for final exams& group projects**		
16	**Semester break**		
17	**Final Examination**		

7. Book Reference:

a) Main Textbook: J. Elton, Edwin, J. Gruber, Martin, J. Brown, Stephen, and N. Goetzmann, William (2014), *Modern Portfolio Theory and Investment Analysis*, 9th Edition, John Wiley and Sons, Inc. ISBN # 978-1-118-46994-1

b) Additional Reference:
Hand-outs & Journal articles