Master of Science in Financial Engineering

FE8813
EQUITY PORTFOLIO MANAGEMENT

Academic Year : 2017/2018
Mini Term : 3
Pre-requisites : FE8811

Course Description
This course is introductory to quantitative equity portfolio management with an emphasis on the mean-variance paradigm. It discusses techniques used in constructing portfolios, enhancing portfolio performance with derivatives, and applying asset pricing models to performance measurement and evaluation. The course provides a quantitative structure for understanding how managers seek to add value and how portfolio management & performance can be understood and analysed in the framework of modern portfolio analysis including the issue of trading costs. Microsoft Excel will be heavily used in the course.

<table>
<thead>
<tr>
<th>Learning Goals</th>
<th>Learning Objectives:</th>
<th>Assessment Methods</th>
<th>Rubric</th>
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</thead>
</table>
| To possess a foundation of equity portfolio management | • To construct and rebalance efficient portfolios  
• To conduct various methods of testing on portfolio performance  
• To deal with financial data, statistical analysis, and computing | • Exercise in class          | • Acquisition of knowledge & Quantitative skills |
| To be self-learning, and communicate effectively   | • To understand new issues and provide critical comments | • Article discussion & presentation | • Motivation & Development of Self & Others |
| To work as a team                                   | • To share insights and reconcile your ideas with other members’                   | • Term project              | • Team & personal skills           |

Course Assessment

<table>
<thead>
<tr>
<th>Components</th>
<th>Marks</th>
<th>Individual/Group</th>
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<tbody>
<tr>
<td>Class Participation &amp; Exercise</td>
<td>15</td>
<td>Individual</td>
</tr>
<tr>
<td>Article Presentation</td>
<td>15</td>
<td>Group</td>
</tr>
<tr>
<td>Projects</td>
<td>20</td>
<td>Group</td>
</tr>
<tr>
<td>Examination (restricted open-book)</td>
<td>50</td>
<td>Individual</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
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Master of Science in Financial Engineering

Academic Integrity Policy

NTU’s Student Academic Integrity Policy requires all members of the NTU community to uphold the values of academic integrity in all academic undertakings. The policy defines the following acts as academic dishonesty:

- plagiarism,
- academic fraud and
- facilitating academic dishonesty.

All students are expected to read and observe the policy guidelines detailed at this website: http://academicintegrity.ntu.edu.sg/for-everyone/policy/. The academic integrity website also highlights the penalties that will be imposed on students who are found to have violated the policy, and the processes that will be followed when we deal with cases of academic dishonesty.

Lecture Schedule

<table>
<thead>
<tr>
<th>Session</th>
<th>Topics</th>
<th>Readings§</th>
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<tbody>
<tr>
<td>08-Nov-2017</td>
<td>Systematic Portfolio Management Return and Risk Indices</td>
<td>JF: Ch1 BKM: Ch5 List: 12, 14</td>
</tr>
<tr>
<td>11-Nov-2017</td>
<td>Portfolio Construction based on Mean and Variance The Capital Asset Pricing Model Covariance Estimation</td>
<td>JF: Ch2, Ch3 GC: Ch2, Ch3 List: 11, 13, 17-18, 26, 28-29</td>
</tr>
<tr>
<td>15-Nov-2017</td>
<td>Incorporating Investor View Derivatives and Portfolio Enhancement</td>
<td>List: 2, 16</td>
</tr>
<tr>
<td>20-Nov-2017</td>
<td>Other Portfolio Selection Models</td>
<td>EGBG: Ch11</td>
</tr>
<tr>
<td>27-Nov-2017</td>
<td>Portfolio Performance Evaluation Performance Attribute Management Style</td>
<td>EGBG: Ch24 BKM: Ch24 List: 1, 6-8, 10, 22-25, 30</td>
</tr>
<tr>
<td>04-Dec-2017</td>
<td>The Structure of Trading and Trading Costs</td>
<td>H: Ch1-Ch8 List: 9, 15</td>
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</tbody>
</table>

11-Dec-2017 Final Examination

§BKM = Bodie, Kane & Marcus, EGBG = Elton, Gruber, Brown & Goetzmann, GC = George Pennacchi, JF = James L. Farrell, RB = Reilly & Brown, and List = List of Articles

Note: (i) Students self-study Chapters 1 to 4 of BKM. If you need consultation, please feel free to see me in my office, (ii) Lecture notes and additional readings will be available on the course website http://NTULearn.ntu.edu.sg. So regularly check the course website for further announcements.

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Office Location</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charlie Charoenwong, PhD</td>
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<td>6790 4799</td>
<td><a href="mailto:charlie@pmail.ntu.edu.sg">charlie@pmail.ntu.edu.sg</a></td>
</tr>
</tbody>
</table>
Reference Textbooks


List of Interesting Articles


