

AOL Report Master of Financial Engineering (MFE) Program Assessment (2013)

The role of the Master of Financial Engineering (MFE) program is specialization in finance engineering and quant. The MFE program provides human resource training focused on quantitative asset management, derivatives, risk management, on-site problem solving skills as well as understanding of global practice. The students in the MFE program are required to have analytical and research skill that can be applied in actual practices via thesis writing.

- Total Course: 26 (1.5-unit courses in 2013)
- Number of Graduate: 0
- Total Enrollment: 1st 33 / 2nd 0
- Samples: 7~30 (15% of total enrollment = 5)
- Assessment Course:

| | | |
|-----------------|-----|---|
| Learning Goal 1 | L11 | FE527 Security Analysis and Trading Strategies |
| | L12 | FE542 Advanced Financial Time Series Analysis |
| Learning Goal 2 | L21 | FE534 Credit Risk Modeling and Credit |
| | L22 | Derivatives FE531 Numerical Methods in Finance |
| Learning Goal 3 | L31 | FE628 Cases Studies on Risk Management |
| | L32 | FE535 Derivatives Trading Strategies |
| | L33 | FE535 Derivatives Trading Strategies |
| Learning Goal 4 | L41 | FE528 Financial Market Risk Management |
| | L42 | OPI Test and FMB902 Business English Writing |

Outline of assessment

Overall, the students of the Master of Financial Engineering (MFE) program meet expectations successfully. L1, L2, L3, and L4 have the average scores of 2.18, 2.47, 2.44, and 2.45 which are higher than the criterion value 2 which means students meet the expectations. Most of the scores of traits exceed the criterion, but the scores of 'Mannerisms' (L32-T4), 'Use of media/rapport with audience' (L32-T6), and 'Application of analysis to global business situation' (L41-T3) are below the criterion that means students fail to meet the expectations for those traits. However, they mark 1.90, 1.71, and 1.50 that are close to the criterion value. It means students achieved learning goals for even unsatisfactory traits.

Students of MFE program achieve high levels in researching skills and analytical thinking generally. However, the relatively low scores in the traits related to application shows that they have difficulty in application of theory or analytical tools. Moreover, some students have difficulty in finding research sources and identifying objectives. This tendency is confirmed by the low score of traits related to make clear introduction and background.

Student of MFE program have the strengths in making documents rather than delivering presentations. Conversely, they have some troubles to make presentation. Therefore, a course related to effective presentation should be provided to student.

Overview of assessment

| MFE Program Assessment: Learning Goal 1 | | |
|--|-------------------------------|---|
| Our graduates will command analytical thinking in solving complex financial decision problems. | | |
| Learning Objective | Sample | Methods |
| (L11) Graduate will have basic quantitative skills for research (L12) Graduate will use appropriate quantitative analytical techniques to identify problems in finance and develop a solution. | FE527 (N=7), FE542 (N=30), | - (L11) Test evaluation by faculty - (L12) Test and assignment evaluation by faculty |
| <p>Finding</p> <ul style="list-style-type: none"> - The average scores for L11 and L12 are 2.29 and 2.07 * 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceed Expectations) - L11 and L12 meet expectations successfully. - The achievement in basic skills (L11) is higher than that in application and finding a solution (L12). - The average score of 'Effective literature search skills' (Trait 3 for L11) is higher than others. - 14.3% (1/7) of students have difficulty in constructing logic and organization (Trait 1 for L11). - 13.3% (4/30) of students could not meet expectations for L12. | | |

MFE Program Assessment: Learning Goal 2

Our graduates will have skills (or ability) to conduct quality research.

| Learning Objective | Sample | Methods |
|--|--------------|------------------------------------|
| (L21) Graduate will engage in management research and present the findings of such research effectively. | FE534 (N=21) | - (L21) Test evaluation by faculty |
| (L22) Graduate will have basic theory, analytical research tools, and background about their research area. | FE531 (N=8) | - (L22) Test evaluation by faculty |
| <p>Findings</p> <ul style="list-style-type: none"> - The average score for L21 and L22 are 2.24 and 2.71. * 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceed Expectations) - L21 and L22 meet expectations successfully. - There are 23.8% (5/21) of students who cannot prepare a research (Traits 1 and 2 for L21). It means that students have difficulty in finding research sources and identifying objectives. - Achievement in solution finding is the highest among traits for L21. - 'Application of Theory' (Trait 2 for L22) received low mark relatively. | | |

MFE Program Assessment: Learning Goal 3

Our graduates will be effective communicators.

| Learning Objective | Sample | Methods |
|---|--------------|--|
| (L31) Graduate will produce professional business or academic documents. | FE628 (N=12) | - (L31) Term paper evaluation by faculty |
| (L32) Graduate will deliver effective presentation accompanied with proper media technology. | FE535 (N=21) | - (L32) Presentation evaluation by faculty |
| (L33) Graduate will demonstrate effective interpersonal communication in a team setting. | FE535 (N=21) | - (L33) Presentation evaluation by faculty |
| <p>Finding</p> <ul style="list-style-type: none"> - The average scores for L31, L32 and L33 are 2.83, 2.17, and 2.32, respectively <li style="padding-left: 20px;">* 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceed Expectations) - L31, L32 and L33 meet expectations successfully. - ‘Clear introduction and background’ (Trait 1 for L31) received low mark relatively. - ‘Mannerisms’ (Trait 4 for L32) and ‘Use of media/rapport with audience’ (Trait 6 for L32) fail to meet expectations. | | |

MFE Program Assessment: Learning Goal 4

Our graduates will have a global perspective.

| Learning Objective | Sample | Methods |
|--|---|--|
| <p>(L41) Graduate will understand global business issues and relate current issues to emerging business opportunities.</p> <p>(L42) Graduate will take command of global financial markets in business English or other languages.</p> | <p>FE528 (N=8)</p> <p>FMB902 (N=21)</p> <p>(MFE program shares the English courses with FMBA program)</p> | <ul style="list-style-type: none"> - (L41) Test evaluation by faculty - (L42) Class participation evaluation by faculty and OPI evaluation |

Finding

- The average scores for L41 and L42 are 2.17 and 2.73.
- * 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceed Expectations)
- L41 and L42 meet expectations successfully.
- ‘Application of analysis to global business situation’ (Trait 3 for L41) fails to meet expectations.
- All MFE students should pass OPI level test (Official business English speaking capability test). They can get 1~6, AS, and S level according to their English skills. If any student fails to get AS or higher OPI level, he/she need take English proficiency courses. 32.1% of MFE students have got OPI level AS or higher OPI level. Only 3.6% of MFE student have got OPI level below 3.

Data Analysis and Results

| Assessment Learning Goal L1 | | | | | | | | | | | | |
|-----------------------------|------------|------|------|------|------|------------|------|------|------|------|------|------|
| | L11(FE527) | | | | | L12(FE542) | | | | | | |
| | T1 | T2 | T3 | T4 | T5 | T1 | T2 | T3 | T4 | T5 | T6 | T7 |
| 1 | 1 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 2 | 4 | 6 | 3 | 5 | 5 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 3 | 2 | 1 | 4 | 2 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| N | 7 | 7 | 7 | 7 | 7 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Avg | 2.14 | 2.14 | 2.57 | 2.29 | 2.29 | 2.07 | 2.07 | 2.07 | 2.07 | 2.07 | 2.07 | 2.07 |
| Avg_t | 2.29 | | | | | 2.07 | | | | | | |

* Criteria: 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceeds Expectations)

* Unit: person (point)

| Assessment Learning Goal L2 | | | | | | | | | |
|-----------------------------|------------|------|------|------|------|------------|------|------|------|
| | L21(FE534) | | | | | L22(FE531) | | | |
| | T1 | T2 | T3 | T4 | T5 | T1 | T2 | T3 | T4 |
| 1 | 5 | 5 | 2 | 2 | 1 | 0 | 0 | 0 | 0 |
| 2 | 8 | 5 | 12 | 11 | 14 | 3 | 5 | 2 | 4 |
| 3 | 8 | 11 | 7 | 8 | 6 | 9 | 7 | 10 | 8 |
| N | 21 | 21 | 21 | 21 | 21 | 12 | 12 | 12 | 12 |
| Avg | 2.14 | 2.29 | 2.24 | 2.29 | 2.24 | 2.75 | 2.58 | 2.83 | 2.67 |
| Avg_t | 2.24 | | | | | 2.71 | | | |

* Criteria: 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceeds Expectations)

* Unit: person (point)

| Assessment Learning Goal L3 | | | | | | | | | | | | | | | | | | |
|-----------------------------|------------|----|----|----|----|----|----|----|------------|----|----|----|----|----|-------------|----|----|----|
| | L31(FE628) | | | | | | | | L32(FE535) | | | | | | L33(FIN535) | | | |
| | T1 | T2 | T3 | T4 | T5 | T6 | T7 | T8 | T1 | T2 | T3 | T4 | T5 | T6 | T1 | T2 | T3 | T4 |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 8 | 1 | 2 | 2 | 0 |
| 2 | 4 | 2 | 0 | 1 | 2 | 3 | 0 | 2 | 4 | 15 | 11 | 17 | 20 | 11 | 11 | 10 | 10 | 16 |
| 3 | 7 | 10 | 12 | 11 | 10 | 9 | 12 | 10 | 16 | 5 | 10 | 1 | 1 | 2 | 9 | 9 | 9 | 5 |

| | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| N | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| Avg | 2.50 | 2.83 | 3.00 | 2.92 | 2.83 | 2.75 | 3.00 | 2.83 | 2.71 | 2.19 | 2.48 | 1.90 | 2.05 | 1.71 | 2.38 | 2.33 | 2.33 | 2.24 |
| Avg_t | 2.83 | | | | | | | | 2.17 | | | | | | 2.32 | | | |

* Criteria: 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceeds Expectations)

* Unit: person (point)

| Assessment Learning Goal L4 | | | | | | |
|-----------------------------|------------|------|------|-------------|------|------|
| | L41(FE528) | | | L42(FMB902) | | |
| | T1 | T2 | T3 | T1 | T2 | T3 |
| 1 | 0 | 0 | 4 | 0 | 0 | 0 |
| 2 | 4 | 4 | 4 | 6 | 4 | 7 |
| 3 | 4 | 4 | 0 | 15 | 17 | 14 |
| N | 8 | 8 | 8 | 21 | 21 | 21 |
| Avg | 2.50 | 2.50 | 1.50 | 2.71 | 2.81 | 2.67 |
| Avg_t | 2.17 | | | 2.73 | | |

* Criteria: 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceeds Expectations)

* Unit: person (point)