

AOL Report Master of Financial Engineering (MFE) Program Assessment

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: 28 (1.5-unit courses in 2014)
- Number of Graduate: 0
- Total Enrollment: 27
- Samples: 7~27 (15% of total enrollment = 4)
- Assessment Course:

Learning Goal 1	L11	FE512 Econometric Analysis for Finance
	L12	FE542 Advanced Financial Time Series Analysis
Learning Goal 2	L21	FE534 Credit Risk Modeling and Credit Derivatives
	L22	FE531 Numerical Methods in Finance
Learning Goal 3	L31	FE537 Statistical Arbitrage
	L32	FE535 Derivatives Trading Strategies
	L33	FE535 Derivatives Trading Strategies
Learning Goal 4	L41	FE525 Management of Derivative Positions
	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 2.20, 2.23, 2.35, and 2.43 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 'Generation of alternatives' (L12-T5), 'Recommendations' (L12-T6), 'Solutions' (L12-T7), and 'Incubation: idea finding' (L21-T3) are below the criterion that means students fail to meet the expectations for those traits. However, they mark 1.83, 1.83, 1.83, and 1.90, respectively, which are close to the criterion value. It means students achieved learning goals for even unsatisfactory traits.

Students of MFE program achieve high levels in basic theory, analytical research tools, and background about their research areas. However, they get poor results in the process of research: 'Incubation: idea finding', 'Illumination: solution finding', and 'Verification: acceptance finding'. Compared to L21 result in last year, each score of trait L21 falls except for Trait 2, meaning that there has recently been a decline in the research ability. This result implies that they have difficulties in how to find their research theses and how to shape their researches. Therefore, it seems that lectures about method in writing a research paper should be provided to the students.

Students of MFE program have the strengths in making documents rather than delivering presentations. However, they have some troubles in making presentation and demonstrating effective interpersonal communication in a team setting. Therefore, courses related to effective presentation and communication skills should be provided to the students.

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.	FE512 (N=32), FE542 (N=18),	- (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 2.20 and 2.23 * 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceed Expectations) - L11 and L12 meet expectations successfully. - The achievement in application and finding a solution (L12) is higher than that in basic skills (L11). - In evaluation of L11, the average score of ‘Consistent conclusions’ (Trait 5) is higher than others. - In evaluation of L12, the average scores of ‘Quantitative knowledge’ (Trait 1), ‘Application of quantitative analytical tools’ (Trait 2), ‘Application of financial analysis’ (Trait 3), and ‘Identification of case problems/issues’ (Trait 4) mark the highest points. - 21.875% (7/32) of students have difficulty in constructing logic and organization (Trait 1 for L11). - 9.375% (3/32) of students could not meet expectations for L12. (get points lower than 2 at least in one trait for L22.) 		

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=20)	- (L21) Test evaluation by faculty
(L22) Graduate will have basic theory, analytical research tools, and background about their research area.	FE531 (N=14)	- (L22) Test evaluation by faculty
<p>Findings</p> <ul style="list-style-type: none"> - The average score for L21 and L22 are 2.12 and 2.34. * 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceed Expectations) - L21 and L22 meet expectations successfully. - Several students (3~4 from 20) cannot prepare a research (Trait 1 and 2 for L21). It means that those students have difficulty in finding research sources and identifying objectives. - Compared to L21 result in last year, each score of trait for L21 falls except for Trait 2. It implies that there has recently been a decline in the research ability. - Students fail to meet expectations in 'Incubation: idea finding' for L21. Therefore, they need to try to generate many ideas with novelty or diversity. - 'Proper use of effective research tools' (Trait 3 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.	FE537 (N=17)	- (L31) Term paper evaluation by faculty
(L32) Graduate will deliver effective presentation accompanied with proper media technology.	FE535 (N=8)	- (L32) Presentation evaluation by faculty
(L33) Graduate will demonstrate effective interpersonal communication in a team setting.	FE535 (N=8)	- (L33) Presentation evaluation by faculty
<p>Finding</p> <ul style="list-style-type: none"> - The average scores for L31, L32 and L33 are 2.56, 2.13, and 2.13, respectively * 1 (Fails to Meet Expectations) 2 (Meets Expectations) 3 (Exceed Expectations) - L31, L32 and L33 meet expectations successfully. - The result shows that students achieve successfully in producing professional business documents. <p>(L31)</p>		

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>FE525 (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 2.13 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) received low mark relatively.
- 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(FE512)					L12(FE542)						
	T1	T2	T3	T4	T5	T1	T2	T3	T4	T5	T6	T7
1	7	3	3	2	2	1	1	1	1	3	3	3
2	16	21	21	23	21	6	6	6	6	15	15	15
3	9	8	8	7	9	11	11	11	11	0	0	0
N	32	32	32	32	32	18	18	18	18	18	18	18
Avg	2.06	2.16	2.16	2.16	2.22	2.56	2.56	2.56	2.56	1.83	1.83	1.83
Avg_t	2.15					2.25						

* 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	4	3	7	5	5	0	1	1	0
2	6	9	8	8	9	8	7	9	9
3	10	8	5	7	6	6	6	4	5
N	20	20	20	20	20	14	14	14	14
Avg	2.30	2.25	1.90	2.10	2.05	2.43	2.36	2.21	2.36
Avg_t	2.12					2.34			

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

* Unit: person (point)

Assessment Learning Goal L3																		
	L31(FE537)								L32(FE535)						L33(FE535)			
	T1	T2	T3	T4	T5	T6	T7	T8	T1	T2	T3	T4	T5	T6	T1	T2	T3	T4
1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	6	8	6	6	1	8	10	11	8	5	8	8	5	8	8	8	8	4

3	11	9	10	10	16	9	7	6	0	3	0	0	3	0	0	0	0	4
N	17	17	17	17	17	17	17	17	8	8	8	8	8	8	8	8	8	8
Avg	2.65	2.53	2.53	2.53	2.94	2.53	2.41	2.35	2.00	2.38	2.00	2.00	2.38	2.00	2.00	2.00	2.00	2.50
Avg_t	2.56								2.13						2.13			

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

* Unit: person (point)

Assessment Learning Goal L4							
	L41(FE525)				L42(FMB902)		
	T1	T2	T3	T4	T1	T2	T3
1	0	0	1	0	0	0	0
2	7	6	6	7	6	4	7
3	1	2	1	1	15	17	14
N	8	8	8	8	21	21	21
Avg	2.13	2.25	2.00	2.13	2.71	2.81	2.67
Avg_t	2.13				2.73		

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

* Unit: person (point)