

IU MAFE CURRICULUM K2023

ACADEMIC ENGLISH (TOEFL iBT ≥ 61 ; IELTS ≥ 5.5)

Freshman Year					
Semester 1			Semester 2		
EN007IU	Writing AE1	2	EN011IU	Writing AE2	2
EN008IU	Listening AE1	2	EN012IU	Speaking AE2	2
MAFE101IU	Analysis 1	4	MAFE103IU	Analysis 2	4
PE021IU	General Law	3	MAFE104IU	Linear Algebra	4
BA117IU	Micro Economics	3	MAFE105IU	Financial Economics	3
MAFE109IU	Introduction to Python	4	BA119IU	Macro Economics	3
PT001IU	Physical Training 1	3	PT002IU	Physical Training 2	3
Total Credits		21	Total Credits		21

Sophomore Year					
Semester 3			Semester 4		
MAFE201IU	Real Analysis	4	MAFE206IU	Probability	3
MAFE203IU	Analysis 3	3	MAFE202IU	Differential Equations	4
MAFE212IU	Financial Accounting	4	MAFE315IU	Introduction to Corporate Finance	3
MAFE204IU	Database Management system	3	MAFE208IU	Numerical Analysis	4
	FERM Elective #1	3	MAFE215IU	Financial Management	3
PE015IU	Philosophy of Marxism and Leninism	3	PE016IU	Political economics of Marxism and Leninism	2
Total Credits		20	Total Credits		19

Summer Semester 2: Military Education

Junior Year					
Semester 5			Semester 6		
MAFE316IU	Statistics	4	MAFE306IU	Financial Mathematics 1	3
MAFE302IU	Random Processes	3	MAFE307IU	Optimization 2	3
MAFE303IU	Optimization 1	4	MAFE308IU	Financial Risk Management 1	3
MAFE309IU	Software Engineering	3	MAFE207IU	Decision Making	3
	FERM Elective #2	3	MAFE314IU	Financial econometrics	3
PE017IU	Scientific socialism	2	PE018IU	History of Vietnamese Communist Party	2
			PE019IU	Ho Chi Minh's Thoughts	2
Total Credits		19	Total Credits		19

Summer Semester 3

MAFE313IU-Summer Internship	3				
Total Credits		3			

Senior Year					
Semester 7			Semester 8		
MAFE401IU	Financial Mathematics 2	3	MAFE409IU	GRADUATION THESIS	12
MAFE402IU	Portfolio Management	3			
MAFE403IU	Research Methods in Finance	3			
	FERM Elective #3	3			
	FERM Elective #4	3			
Total credit		15	Total Credits		12

Total credits: 143 (not included Physical Training 1, 2 which are not accumulated in GPA)

INTENSIVE ENGLISH 2 (TOEFL iBT 46-60, IELTS <=5.0)

Freshman Year					
Semester 1			Semester 2		
ENTP02	IE2	13	EN007IU EN008IU	Writing AE1 Listening AE1	2 2
PT001IU	Physical Training 1	3	MAFE101IU	Analysis 1	4
PE015IU	Philosophy of Marxism and Leninism	3	MAFE104IU	Linear Algebra	4
PE016IU	Political economics of Marxism and Leninism	2	MAFE105IU	Financial Economics	3
			BA117IU	Micro Economics	3
			PE021IU	General Law	3
			PT002IU	Physical Training 2	3
Total Credits		21	Total Credits		24

Sophomore Year					
Semester 3			Semester 4		
EN011IU EN012IU	Writing AE2 Speaking AE2	2 2	MAFE201IU	Real Analysis	4
MAFE103IU	Analysis 2	4	MAFE203IU	Analysis 3	3
BA119IU	Macro Economics	3	MAFE202IU	Differential Equations	4
MAFE109IU	Introduction to Python	4	MAFE315IU	Introduction to Corporate Finance	3
MAFE212IU	Financial Accounting	4	MAFE208IU	Numerical Analysis	4
PE017IU	Scientific socialism	2	MAFE215IU	Financial Management	3
				FERM Elective #1	3
Total Credits		21	Total Credits		24

Summer Semester 2: Military Education

Junior Year					
Semester 5			Semester 6		
MAFE206IU	Probability	3	MAFE307IU	Optimization 2	3
MAFE303IU	Optimization 1	4	MAFE308IU	Financial Risk Management 1	3
MAFE204IU	Database Management system	3	MAFE207IU	Decision Making	3
MAFE309IU	Software Engineering	3	MAFE314IU	Financial econometrics	3
PE018IU	History of Vietnamese Communist Party	2	MAFE316IU	Statistics	4
PE019IU	Ho Chi Minh's Thoughts	2	MAFE302IU	Random Processes	3
	FERM Elective #2	3			
Total Credits		20	Total Credits		19

Summer Semester 3

MAFE313IU-Summer Internship	3				
Total Credits		3			

Senior Year					
Semester 7			Semester 8		
MAFE306IU	Financial Mathematics 1	3	MAFE409IU	GRADUATION THESIS	12
MAFE402IU	Portfolio Management	3	MAFE401IU	Financial Mathematics 2	3
MAFE403IU	Research Methods in Finance	3			
	FERM Elective #3	3			
	FERM Elective #4	3			
Total credit		15	Total Credits		15

Total credits: 156 (not included Physical Training 1, 2 which are not accumulated in GPA)

Remark: If a student does not pass IE2 multiple times, he/she has to take the single course IE2 in next semesters until pass the level IE2. Trong trường hợp SV rớt IE2 nhiều lần, sinh viên phải học riêng môn IE2 ở các học kì tiếp theo cho đến khi đạt trình độ IE2.

INTENSIVE ENGLISH 1 (TOEFL iBT 35-45, IELTS <=4.5)

Freshman Year					
<i>Semester 1</i>			<i>Semester 2</i>		
ENTP01	IE1 (week: 1-7)	17	EN007IU	Writing AE1	2
			EN008IU	Listening AE1	2
ENTP02	IE2 (week: 8-14)	13	MAFE101IU	Analysis 1	4
			MAFE104IU	Linear Algebra	4
			MAFE105IU	Financial Economics	3
			BA117IU	Micro Economics	3
			PE021IU	General Law	3
			PT001IU	Physical Training 1	3
<i>Total Credits</i>		30	<i>Total Credits</i>		24
<i>Summer Semester 1</i>					
PE015IU	Philosophy of Marxism and Leninism	3			
PE016IU	Political economics of Marxism and Leninism	2			
<i>Total Credits</i>		5			

Sophomore Year					
<i>Semester 3</i>			<i>Semester 4</i>		
EN011IU	Writing AE2	2			
EN012IU	Speaking AE2	2	MAFE201IU	Real Analysis	4
MAFE103IU	Analysis 2	4	MAFE203IU	Analysis 3	3
BA119IU	Macro Economics	3	MAFE202IU	Differential Equations	4
MAFE109IU	Introduction to Python	4	MAFE315IU	Introduction to Corporate Finance	3
MAFE212IU	Financial Accounting	4	MAFE208IU	Numerical Analysis	4
PT002IU	Physical Training 2	3	MAFE215IU	Financial Management	3
PE017IU	Scientific socialism	2		FERM Elective #1	3
<i>Total Credits</i>		24	<i>Total Credits</i>		24
<i>Summer Semester 2: Military Education</i>					

Junior Year					
<i>Semester 5</i>			<i>Semester 6</i>		
MAFE204IU	Database Management system	3	MAFE307IU	Optimization 2	3
MAFE206IU	Probability	3	MAFE308IU	Financial Risk Management 1	3
MAFE303IU	Optimization 1	4	MAFE207IU	Decision Making	3
MAFE309IU	Software Engineering	3	MAFE314IU	Financial econometrics	3
PE018IU	History of Vietnamese Communist Party	2	MAFE316IU	Statistics	4
PE019IU	Ho Chi Minh's Thoughts	2	MAFE302IU	Random Processes	3
	FERM Elective #2	3			
<i>Total Credits</i>		20	<i>Total Credits</i>		19
<i>Summer Semester 3</i>					
	MAFE313IU- Summer Internship	3			
<i>Total Credits</i>		3			

Senior Year					
<i>Semester 7</i>			<i>Semester 8</i>		
MAFE306IU	Financial Mathematics 1	3	MAFE409IU	GRADUATION THESIS	12
MAFE402IU	Portfolio Management	3	MAFE401IU	Financial Mathematics 2	3
MAFE403IU	Research Methods in Finance	3			
	FERM Elective #3	3			
	FERM Elective #4	3			
<i>Total credit</i>		15	<i>Total Credits</i>		15

Total credits: 173 (not included Physical Training 1, 2 which are not accumulated in GPA)

Remark: If a student does not pass IE2 multiple times, he/she has to take the single course IE2 in next semesters until pass the level IE2. Trong trường hợp SV rớt IE2 nhiều lần, sinh viên phải học riêng môn IE2 ở các học kì tiếp theo cho đến khi đạt trình độ IE2.

INTENSIVE ENGLISH 0 (TOEFL iBT <=34, IELTS <=4.0)

Freshman Year					
<i>Semester 1</i>			<i>Semester 2</i>		
ENTP00	IE0 (week 1-7)	17	ENTP02	IE2	13
ENTP01	IE1 (week 8-14)	17	PT001IU	Physical Training 1	3
<i>Total Credits</i>		34	<i>Total Credits</i>		16
<i>Summer Semester 1</i>					
PE015IU	Philosophy of Marxism and Leninism	3			
EN007IU	Writing AE1	2			
EN008IU	Listening AE1	2			
MAFE101IU	Analysis 1	4			
<i>Total Credits</i>		11			

Sophomore Year					
<i>Semester 3</i>			<i>Semester 4</i>		
EN011IU	Writing AE2	2	MAFE201IU	Real Analysis	4
EN012IU	Speaking AE2	2			
MAFE103IU	Analysis 2	4	MAFE203IU	Analysis 3	3
MAFE104IU	Linear Algebra	4	BA119IU	Macro Economics	3
BA117IU	Micro Economics	3	MAFE105IU	Financial Economics	3
MAFE212IU	Financial Accounting	4	MAFE202IU	Differential Equations	4
PE016IU	Political economics of Marxism and Leninism	2	MAFE215IU	Financial Management	3
	FERM Elective #1	3	PE017IU	Scientific socialism	2
<i>Total Credits</i>		24	<i>Total Credits</i>		22
<i>Summer Semester 2: Military Education</i>					

Junior Year					
<i>Semester 5</i>			<i>Semester 6</i>		
MAFE204IU	Database Management system	3	MAFE208IU	Numerical Analysis	4
MAFE109IU	Introduction to Python	4	MAFE308IU	Financial Risk Management 1	3
MAFE206IU	Probability	3	MAFE316IU	Statistics	4
PE018IU	History of Vietnamese Communist Party	2	MAFE302IU	Random Processes	3
PE019IU	Ho Chi Minh's Thoughts	2	PE021IU	General Law	3
PT002IU	Physical Training 2	3			
	FERM Elective #2	3			
<i>Total Credits</i>		20	<i>Total Credits</i>		17
<i>Summer Semester 3</i>					
	MAFE313IU- Summer Internship	3			
<i>Total Credits</i>		3			

Senior Year					
<i>Semester 7</i>			<i>Semester 8</i>		
MAFE306IU	Financial Mathematics 1	3	MAFE207IU	Decision Making	3
MAFE314IU	Financial econometrics	3	MAFE401IU	Financial Mathematics 2	3
MAFE303IU	Optimization 1	4	MAFE402IU	Portfolio Management	3
MAFE309IU	Software Engineering	3	MAFE307IU	Optimization 2	3
	FERM Elective #3	3	MAFE315IU	Introduction to Corporate Finance	3
				FERM Elective #4	3
<i>Total credit</i>		16	<i>Total Credits</i>		18

Semester 9 (5th-year)

MAFE403IU	Research Methods in Finance	3
MAFE409IU	GRADUATION THESIS	12
<i>Total Credits</i>		15

Total credits: 190 (not included Physical Training 1, 2 which are not accumulated in GPA)

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Department Elective courses

	Codes	Subjects	Credits			
			Total	Theory	Practice	% practice/total
FERM Elective #1						
1	MAFE209IU	Financial markets	3	3		
2	MAFE210IU	Functional analysis	4	4		
3	MAFE211IU	Web application programming	4	3	1	1/4
FERM Elective #2						
4	MAFE310IU	Modeling and simulation	4	3	1	1/4
5	MAFE311IU	Asset pricing	3	3		
6	MAFE312IU	Data mining	4	3	1	1/4
FERM Elective #3						
7	MAFE404IU	Financial Risk Management 2	3	3		
8	MAFE411IU	Introduction to Operations research	3	4		
9	MAFE406IU	Parallel computing	4	3	1	1/4
FERM Elective #4						
10	MAFE407IU	Mathematical economics	4	4		
11	MAFE410IU	Exchange rates and International finance	3	3		
12	MAFE412IU ¹	Financial statement analysis and business evaluation	3	3		

Approved by Chair of Mathematics Department

Date: September 05, 2023

Prof. Dr. Pham Huu Anh Ngoc

¹ Previous code is BA190IU (Mã môn cũ là **BA190IU**)