DEPARTMENT OF INDUSTRIAL AND SYSTEMS ENGINEERING

STUDENT HANDBOOK

INTERNATIONAL UNIVERSITY – VIETNAM NATIONAL UNIVERSITY HCMC
BLOCK 6, WARD LINH TRUNG, THU DUC DISTRICT

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1. INTRODUCTION

The International University (IU) is the first public International University of Vietnam and a member of Vietnam National University – Ho Chi Minh City (VNU). The IU is currently striving to become a prestigious research institution and training high quality human resources for the country. It is fully empowered to award all degrees from undergraduate to post graduate levels. Its internationality is reflected in international academic environment of IU as a whole, including all degree programs, teaching staff, languages of instruction, academic and research infrastructure. Its publicity is reflected in the long-term support from the government and other funding agencies and organizations at all levels – from local national to regional and international.

Schools and Departments

- School of Biotechnology
- School of Business
- School of Computer Science and Engineering
- School of Electrical Engineering
- Department of Biomedical Engineering
- Department of Industrial and Systems Engineering
- Department of Civil Engineering
- Department of English
- Department of Mathematics
- Department of Physics

2. DEPARTMENT OF ISE

2.1 Mission

The Department of Industrial and Systems Engineering in International University – Vietnam National University, Ho Chi Minh city (IU – VNUHCM) aims to attract, educate students and prepare them to be leaders in the Industrial and Systems Engineering (ISE) in Vietnam and Asia. The department offers programs to satisfy the needs of Vietnam in industry development, research, education and entrepreneurship in the field.

2.2 Objectives

The undergraduate program of Industrial & Systems Engineering (ISE) will provide students with knowledge and skills in theory as well as practice on designing, operating, improving and optimizing the production and service systems.

2.3 Career Opportunities

ISE engineers can take on and perform excellently tasks in various fields, namely Logistics & Supply Chain Management, Project Management, Inventory Management, Quality Management, Optimization in Production and Service, developing an integrated solution to reduce the operation cost, etc. Qualified graduated engineers can achieve the top-level positions in organizations such as Production Director and Chief Executive Officer.

2.4 Specific Aim

ISE graduates should be capable of:

1. Operating effectively within the ISE domain.
2. Solving (complex) engineering design problems in industrial system of production and services.
3. Collecting, analyzing and evaluating data relevant to problems arising in the ISE domain with special emphasis on using statistics, quantitative methods, design of experiments, quality management and simulation, and then modeling and making decision to improve system.
4. Applying current technology to solve industrial problems. Moreover, ISE graduates are excel at:

    - ***System Designing***: designing industrial system of production and services from small to medium scales.
    - ***System Operating***: Operating effectively industrial system of production and services by reasonable use of resources.
    - ***System Improving***: Analyzing, modeling and determining optimal variables and problems thus suggesting necessary changes.
    - ***System Restructuring***: Analyzing, evaluating the current industrial system of production and services and suggesting a restructure for a productivity and efficiency improvement.
    - ***Decision Making Supporting***: supporting the managers by making from simple to multi-criteria optimization under conditions of certainty and uncertainty.

2.5 Expected Learning Outcome

1. Apply mathematics science and engineering principles [ABET 3A].
2. Ability to design and conduct experiments and interpret data [ABET 3B].
3. Ability to design a system, component, or process to meet desired needs [ABET 3C].
4. Ability function on multidisciplinary teams [ABET 3D].
5. Ability to identify, formulate, and solve engineering problems [ABET 3E].
6. Ability to understand professional and ethical responsibility [ABET 3F].
7. Ability to communicate effectively [ABET 3G].
8. Ability to understand the impact of engineering solutions in a global context [ABET 3H].
9. Ability to recognize the need for and to engage in life-long learning [ABET 3I].
10. Ability to Know of contemporary issues [ABET 3J].
11. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice [ABET 3K].
12. Ability to exert the effort necessary for job success [ABET 3L].
13. Ability to consider the entire system in project solutions [ABET 3M].

2.6 Course Design

The course of the B.S Degree in Industrial & System Engineering in the IU – VNUHCM provides the students the flexibility to join either the IU program (4 years at IU) or the twining program (2 years at IU and 2 years at Rutgers University, the State University of New Jersey, or at University at Binghamton, the State University of New York). Students will receive bachelor degree awarded by the IU if taking the IU program and bachelor degree awarded by the overseas partner universities if taking the twining program.

The ISE program is designed with consideration of students' English level which is estimated on TOEFL or TOEFL IBT scores. First year students are classified into three levels:

- English level 1: TOEFL ≥ 500 (TOEFL IBT ≥ 60 or IELTS > 6.5): Students are admitted to take full program.
- English level 2: 430 ≤ TOEFL < 500 (40 ≤ TOEFL IBT < 60): Students are admitted to take partial program together with English preparation classes (IE2).
- English level 3: TOEFL < 430 (TOEFL IBT < 40): Students are required to take only intensive English course (IE1) for the first semester of the first year at school.
- *(See more on the curricula of different ISE programs)*

2.7 Scholarship

Students with entrance examination scores equal or above 24.5 are eligible to receive full scholarship which is worth 126.200.000 VND (~ $6,000 USD) for the whole course (4 years for domestic programs and 2 years for twinning programs). Partial scholarship, which is worth 63.100.000 VND (~ $ 3,000 USD for the whole course), is offered to students with entrance examination scores from 23.5 to 24.5. To maintain the scholarship throughout the whole course, students need to keep their GPA equal or above 70 and scores of all subjects equal or above 50.

To encourage students with good merits, each semester the International University spends around 24,000 USD awarding those who achieve excellent merits in the second semester of the first year. Every semester, 40 scholarships, each worth 12.620.000 VND (~ 600 USD), are granted to the best students who receive neither full nor partial scholarships.

2.8 Course Assessment

- Mid-term exam: 20% - 40%
- Final exam: 40% - 60%
- Others (e.g. In-class quizzes, group presentation, etc): 20% - 40%

2.9 Classification According to GPA

Classification	**100-Point Grading**
Passing	
Excellent	90 <= GPA <= 100
Very Good	80 <= GPA < 90
Good	70 <= GPA < 80
Fair	60 <= GPA < 70
Average	50 <= GPA < 60
No Passing	
Weak	40 <= GPA <= 50
Very weak	GPA < 40

IU ISE PROGRAM

3. IU ISE PROGRAM (for batch 2011, 2012, 2013)

3.1 English Level 1: TOEFL ≥ 500

TOTAL CREDITS: 143

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
MA001IU	Calculus 1	4	MA003IU	Calculus 2	4
PH013IU	Physics 1	2	PH014IU	Physics 2	2
CH011IU	Chemistry for Engineers	3	IS002IU	Introduction to Computing	3
CH012IU	Chemistry Laboratory	1	EN011IU	Writing AE2	2
PE008IU	Critical Thinking	3	EN012IU	Speaking AE2	2
EN007IU	Writing AE1	2	IS005IU	Engineering Mechanics – Statics	3
EN008IU	Listening AE1	2	PT002IU	Physical Training 2	0
PT001IU	Physical Training 1	0			
	Total Credits	**17**		**Total Credits**	**16**
Summer Semester		Crds			
PE011IU	Principles of Marxism	5			
PE012IU	HCM' s Thoughts	2			
PE013IU	Revolutionary Lines of Vietnamese Communist Party	3			
	Total Credits	**10**			
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
MA023IU	Calculus 3	4	MA024IU	Differential Equations	4
PH015IU	Physics 3	3	IS014IU	Analytical Physics 2B	3
PH016IU	Physics 3 Lab	1	IS015IU	Analytical Physics 2B Lab	1
IS001IU	Introduction to Industrial Engineering	1	IS020IU	Engineering Economy	3

IS006IU	IE lab	2	IS017IU	Work design & Ergonomics + Lab	4
IS004IU	Engineering Probability & Statistics	4	IS034IU	Product Design & Development	3
IS016IU	Engineering Mechanics – Dynamics	3			
	Total Credits	**18**		**Total Credits**	**18**
Summer Semester		Crds			
IS052IU	Internship 1	2			
	Military Training	0			
	Total Credits	**2**			
Junior Year (Year 3)					
Semester 5		Crds	**Semester 6**		Crds
IS019IU	Production Management	3	IS024IU	Probabilistic Models in OR	3
IS021IU	Deterministic models in OR	3	IS026IU	Project Management	3
IS022IU	Database Systems	3	IS028IU	Simulation Models in IE	4
IS025IU	Quality Management	3	**IS___IU**	**ISE Elective Course (choose 2 courses below)**	**6**
IS051IU	Communication skills	3	IS032IU	Facility Layout	
IS___IU	**ISE Elective Course (choose 1 course below)**	**3**	IS040IU	Management Information System	
IS031IU	Experimental Design		IS023IU	Inventory Management	
IS018IU	CAD/CAM		IS044IU	Computer Control Manufacturing Systems	
	Total Credits	**18**		**Total Credits**	**16**
Summer Semester		Crds			
IS053IU	Internship 2	3			
	Total Credits	**3**			

Senior Year (Year 4)					
Semester 7		Crds	**Semester 8**		Crds
IS027IU	Scheduling & Sequencing	3	IS048IU	Thesis research	10
IS029IU	Supply chain & Logistics Management	3			
IS___IU	**ISE Elective Course (choose 2 courses below)**	**6**			
IS033IU	Multi-Criteria Decision Making				
IS045IU	Leadership				
IS041IU	Lean Production				
IS043IU	Flexible Manufacturing Systems				
IS035IU	Systems Engineering				
	Free Elective Course	**3**			
Total Credits		**15**	**Total Credits**		**10**

3.2 English Level 2: 430 ≤ TOEFL < 500

TOTAL CREDITS: 154

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN070IU	Reading & Writing IE4	5.6	EN007IU	Writing AE1	2
EN071IU	Listening & Speaking IE4	5.4	EN008IU	Listening AE1	2
MA001IU	Calculus 1	4	IS005IU	Engineering Mechanics – Statics	3
PH013IU	Physics 1	2	CH012IU	Chemistry Laboratory	1
CH011IU	Chemistry for Engineers	3	PE008IU	Critical Thinking	3
PT001IU	Physical Training 1	0	MA003IU	Calculus 2	4
			PH014IU	Physics 2	2
			PT002IU	Physical Training 2	0
	Total Credits	**20**		**Total Credits**	**17**
Summer Semester		Crds			
PE011IU	Principles of Marxism	5			
PE012IU	HCM' s Thoughts	2			
PE013IU	Revolutionary Lines of Vietnamese Communist Party	3			
	Total Credits	**10**			
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
MA023IU	Calculus 3	4	MA024IU	Differential Equations	4
PH015IU	Physics 3	3	IS014IU	Analytical Physics 2B	3
PH016IU	Physics 3 Lab	1	IS015IU	Analytical Physics 2B Lab	1
IS001IU	Introduction to Industrial Engineering	1	IS002IU	Introduction to Computing	3
IS006IU	IE lab	2	IS020IU	Engineering Economy	3

IS004IU	Engineering Probability & Statistics	4	IS017IU	Work design & Ergonomics	4
EN011IU	Writing AE2	2	IS034IU	Product Design & Development	3
EN012IU	Speaking AE2	2			
	Total Credits	**19**		**Total Credits**	**21**
Summer Semester		**Crds**			
IS052IU	Internship 1	2			
	Military Training	0			
	Total Credits	**2**			
Junior Year (Year 3)					
Semester 5		Crds	**Semester 6**		Crds
IS016IU	Engineering Mechanics – Dynamics	3	IS024IU	Probabilistic Models in OR	3
IS019IU	Production Management	3	IS026IU	Project Management	3
IS021IU	Deterministic models in OR	3	IS028IU	Simulation Models in IE	4
IS022IU	Database Systems	3	IS051IU	Communication skills	3
IS025IU	Quality Management	3	**IS___IU**	**ISE Elective Course (choose 2 course below)**	**6**
IS___IU	**ISE Elective Course (choose 1 course below)**	**3**	IS032IU	Facility Layout	
IS031IU	Experimental Design		IS040IU	Management Information System	
IS018IU	CAD/CAM		IS023IU	Inventory Management	
			IS044IU	Computer Control Manufacturing Systems	
	Total Credits	**18**		**Total Credits**	**19**
Summer Semester		Crds			
IS053IU	Internship 2	3			
	Total Credits	**3**			

Senior Year (Year 4)					
Semester 7		Crds	**Semester 8**		Crds
IS027IU	Scheduling & Sequencing	3	IS048IU	Thesis research	10
IS029IU	Supply chain & Logistics Management	3			
IS___IU	**ISE Elective Course (choose 2 courses below)**	**6**			
IS033IU	Multi-Criteria Decision Making				
IS045IU	Leadership				
IS041IU	Lean Production				
IS043IU	Flexible Manufacturing Systems				
IS035IU	Systems Engineering				
	Free Elective Course	**3**			
	Total Credits	**15**		**Total Credits**	**10**

3.3 English Level 3: TOEFL < 430

TOTAL CREDITS: 185

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN048IU EN049IU EN050IU EN051IU	IE1	32	EN052IU EN053IU EN054IU EN055IU	IE2	12
PT001IU	Physical Training 1	0	MA001IU	Calculus 1	4
			PH013IU	Physics 1	2
			PH014IU	Physics 2	2
			PT002IU	Physical Training 2	0
	Total Credits	**32**		**Total Credits**	**20**
Summer Semester		Crds			
PE011IU	Principles of Marxism	5			
PE012IU	HCM' s thoughts	2			
PE013IU	Revolutionary Lines of Vietnamese Communist Party	3			
	Total Credits	**10**			
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
CH011IU	Chemistry for Engineers	3	MA023IU	Calculus 3	4
CH012IU	Chemistry Laboratory	1	IS014IU	Analytical Physics 2B	3
MA003IU	Calculus 2	4	IS015IU	Analytical Physics 2B Lab	1
PH015IU	Physics 3	2	IS020IU	Engineering Economy	3
PH016IU	Physics 3 Lab	1	IS002IU	Introduction to Computing	3
IS001IU	Introduction to Industrial Engineering	1	IS005IU	Engineering Mechanics – Statics	3
IS006IU	IE lab	2	EN011IU	Writing AE2	2

EN007IU	Writing AE1	2	EN012IU	Speaking AE2	2
EN008IU	Listening AE1	2			
	Total Credits	**18**		**Total Credits**	**21**
Summer Semester		**Crds**			
IS052IU	Internship 1	2			
	Military Training	0			
	Total Credits	**2**			
Junior Year (Year 3)					
Semester 5		Crds	**Semester 6**		Crds
MA024IU	Differential Equations	4	IS017IU	Work design & Ergonomics	3
IS004IU	Engineering Probability & Statistics	4	IS019IU	Production Management	3
IS016IU	Engineering Mechanics – Dynamics	3	IS024IU	Probabilistic Models in OR	3
IS034IU	Product Design & Development	3	IS028IU	Simulation Models in IE	4
IS021IU	Deterministic models in OR	3	**IS___IU**	**ISE Elective Course (choose 1 course below)**	**3**
IS022IU	Database Systems	3	IS031IU	Experimental Design	
			IS018IU	CAD/CAM	
	Total Credits	**20**		**Total Credits**	**16**
Senior Year (Year 4)					
Semester 7		Crds	**Semester 8**		Crds
IS025IU	Quality Management	3	IS026IU	Project Management	3
IS051IU	Communication skills	3	PE008IU	Critical thinking	3
IS027IU	Scheduling & Sequencing	3	**IS___IU**	**ISE Elective Course (choose 2 course below)**	**6**
IS029IU	Supply chain & Logistics Management	3	IS033IU	Multi-Criteria Decision Making	
IS___IU	**ISE Elective Course (choose 2 course below)**	**6**	IS045IU	Leadership	
IS032IU	Facility Layout		IS041IU	Lean Production	

IS040IU	Management Information System		IS043IU	Flexible Manufacturing Systems	
IS023IU	Inventory Management		IS035IU	Systems Engineering	
IS044IU	Computer Control Manufacturing Systems			**Free Elective Course**	**3**
	Total Credits	**18**		**Total Credits**	**15**
Summer Semester		Crds			
IS053IU	Internship 2	3			
	Total Credits	**3**			
Senior Year (Year 5)					
Semester 9		Crds			
IS048IU	Thesis research	10			
	Total Credits	**10**			

4. IU ISE PROGRAM (for batch 2014 and forwards)

4.1 English Level 1: TOEFL ≥ 500

TOTAL CREDITS: 142

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN007IU	Writing AE1	2	EN011IU	Writing AE2	2
EN008IU	Listening AE1	2	EN012IU	Speaking AE2	2
MA001IU	Calculus 1	4	MA003IU	Calculus 2	4
PH013IU	Physics 1	2	PT002IU	Physical Training 2	0
PH014IU	Physics 2	2	IS001IU	Introduction to Industrial Engineering	1
PT001IU	Physical Training 1	0	IS054IU	Engineering Drawing	3
CH011IU	Chemistry for Engineers	3	PH015IU	Physics 3	3
			PE008IU	Critical Thinking	3
	Total Credits	**15**		**Total Credits**	**18**
Summer Semester		Crds			
PE011IU	Principles of Marxism	5			
PE012IU	HCM' s thoughts	2			
PE013IU	Revolutionary Lines of Vietnamese Communist Party	3			
	Total Credits	**10**			
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
MA027IU	Applied Linear Algebra	2	IS077IU	Introduction to Programming – C^{++}/$C^{\#}$, Python	2
IS019IU	Production Management	3	IS020IU	Engineering Economy	3
IS076IU	Introduction to Computing - Matlab Application	3	IS081IU	Deterministic models in OR	4

IS004IU	Engineering Probability & Statistics	4	IS017IU	Work design & Ergonomics + Lab	4
MA023IU	Calculus 3	4	IS034IU	Product Design & Development	3
IS016IU	Engineering Mechanics – Dynamics	3	MA024IU	Differential Equations	2
	Total Credits	**19**		**Total Credits**	**18**
Summer Semester		Crds			
IS052IU	Internship 1	2			
	Military Training	0			
	Total Credits	**2**			
Junior Year (Year 3)					
Semester 5		Crds	**Semester 6**		Crds
IS040IU	Management Information System	3	IS079IU	Scientific Writing	2
IS025IU	Quality Management	3	IS028IU	Simulation Models in IE	4
IS026IU	Project Management	3	IS027IU	Scheduling & Sequencing	3
IS024IU	Probabilistic Models in OR	3	IS032IU	Facility Layout	3
IS___IU	**ISE Elective Course (choose 1 course below)**	**3**	IS078IU	Logistics engineering & supply chain design	3
IS031IU	Experimental Design		**IS___IU**	**ISE Elective Course (choose 1 course below)**	**3**
IS018IU	CAD/CAM		IS044IU	Computer Control Manufacturing Systems	
IS058IU	Time series & forecasting technique		IS068IU	Procurement Management	
Total Credits		**15**	**Total Credits**		**18**
Summer Semester		Crds			
IS053IU	Internship 2	3			
Total Credits		**3**			
Senior Year (Year 4)					
Semester 7		Crds	**Semester 8**		Crds
IS033IU	Multi-Criteria Decision Making	3	IS048IU	Thesis research	10

IS041IU	Lean Production	3			
IS___IU	**ISE Elective Course (choose 3 courses below)**	**9**			
IS080IU	Creative Thinking				
IS035IU	Systems Engineering				
IS043IU	Flexible Manufacturing Systems				
IS045IU	Leadership				
IS023IU	Inventory Management				
BA146IU	Retail Management				
IS067IU	International Transportation & Logistics				
IS062IU	E-Logistics in Supply Chain Management				
Total Credits		**15**	**Total Credits**		**10**

4.2 English Level 2: 430 ≤ TOEFL < 500

TOTAL CREDITS: 159

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN074IU	Reading & writing IE2	8	EN007IU	Writing AE1	2
EN075IU	Listening & speaking IE2	8	EN008IU	Listening AE1	2
PT001IU	Physical Training 1	0	CH011IU	Chemistry for Engineers	3
MA001IU	Calculus 1	4	PH013IU	Physics 1	2
			PH014IU	Physics 2	2
			PT002IU	Physical Training 2	0
			MA003IU	Calculus 2	4
			IS001IU	Introduction to Industrial Engineering	1
Total Credits		**20**	**Total Credits**		**16**
Summer Semester		Crds			
PE011IU	Principles of Marxism	5			
PE012IU	HCM' s thoughts	2			
PE013IU	Revolutionary Lines of Vietnamese Communist Party	3			
Total Credits		**10**			
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
MA027IU	Applied Linear Algebra	2	IS020IU	Engineering Economy	3
IS019IU	Production Management	3	IS081IU	Deterministic models in OR	4
MA023IU	Calculus 3	4	MA024IU	Differential Equations	2
IS004IU	Engineering Probability & Statistics	4	PE008IU	Critical Thinking	3
EN011IU	Writing AE2	2	IS054IU	Engineering Drawing	3
EN012IU	Speaking AE2	2	PH015IU	Physics 3	3
Total Credits		**17**	**Total Credits**		**18**
Summer Semester		**Crds**			
	Military Training	0			
Total Credits		**0**			

Junior Year (Year 3)					
Semester 5		Crds	**Semester 6**		Crds
IS016IU	Engineering Mechanics – Dynamics	3	IS077IU	Introduction to Programming – $C^{++}/C^{\#}$, Python	2
IS076IU	Introduction to Computing - Matlab Application	3	IS079IU	Scientific Writing	2
IS025IU	Quality Management	3	IS034IU	Product Design & Development	3
IS026IU	Project Management	3	IS017IU	Work design & Ergonomics + Lab	4
IS040IU	Management Information System	3	**IS___IU**	**ISE Elective Course (choose 1 course below)**	**3**
IS___IU	**ISE Elective Course (choose 1 course below)**	3	IS044IU	Computer Control Manufacturing Systems	
IS031IU	Experimental Design		IS068IU	Procurement Management	
IS018IU	CAD/CAM				
IS058IU	Time series & forecasting technique				
Total Credits		**18**	**Total Credits**		**14**
Summer Semester		**Crds**			
IS052IU	Internship 1	2			
Total Credits		**2**			
Senior Year (Year 4)					
Semester 7		Crds	**Semester 8**		Crds
IS033IU	Multi-Criteria Decision Making	3	IS032IU	Facility Layout	3
IS041IU	Lean Production	3	IS027IU	Scheduling & Sequencing	3
			IS078IU	Logistics engineering & supply chain design	3
IS024IU	Probabilistic Models in OR	3	IS028IU	Simulation Models in IE	4
IS___IU	**ISE Elective Course (choose 3 courses below)**	**9**			
IS080IU	Creative Thinking				
IS035IU	Systems Engineering				
IS043IU	Flexible Manufacturing Systems				
IS045IU	Leadership				

IS023IU	Inventory Management				
BA146IU	Retail Management				
IS067IU	International Transportation & Logistics				
IS062IU	E-Logistics in Supply Chain Management				
Total Credits		**18**	**Total Credits**		**13**

Summer Semester		**Crds**
IS053IU	Internship 2	3
Total Credits		**3**
Senior Year (Year 5)		
Semester 9		Crds
IS048IU	Thesis research	10
Total Credits		**10**

4.3 English Level 3: TOEFL < 430

TOTAL CREDITS: 181

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN072IU	Reading & Writing IE1	11	EN074IU	Reading & writing IE2	8
EN073IU	Listening & Speaking IE1	11	EN075IU	Listening & speaking IE2	8
PT001IU	Physical Training 1	0	PT002IU	Physical Training 2	0
			IS001IU	Introduction to Industrial Engineering	1
			MA001IU	Calculus 1	4
Total Credits		**22**	**Total Credits**		**21**
Summer Semester		Crds			
PE011IU	Principles of Marxism	5			
PE012IU	HCM' s thoughts	2			

PE013IU	Revolutionary Lines of Vietnamese Communist Party	3			
Total Credits		**10**			
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
MA027IU	Applied Linear Algebra	2	EN011IU	Writing AE2	2
EN007IU	Writing AE1	2	EN012IU	Speaking AE2	2
EN008IU	Listening AE1	2	PE008IU	Critical Thinking	3
CH011IU	Chemistry for Engineers	3	IS054IU	Engineering Drawing	3
PH013IU	Physics 1	2	MA023IU	Calculus 3	4
PH014IU	Physics 2	2	PH015IU	Physics 3	3
MA003IU	Calculus 2	4			
Total Credits		**17**	**Total Credits**		**17**
Summer Semester		**Crds**			
	Military Training	0			
Total Credits		**0**			
Junior Year (Year 3)					
Semester 5		Crds	**Semester 6**		Crds
IS004IU	Engineering Probability & Statistics	4	IS077IU	Introduction to Programming – C^{++}/$C^{\#}$, Python	2
IS019IU	Production Management	3	IS020IU	Engineering Economy	3
IS076IU	Introduction to Computing - Matlab Application	3	IS017IU	Work design & Ergonomics + Lab	4
IS016IU	Engineering Mechanics – Dynamics	3	IS034IU	Product Design & Development	3
MA024IU	Differential Equations	2	IS021IU	Deterministic models in OR	4
Total Credits		**15**	**Total Credits**		**16**
Summer Semester		Crds			
IS052IU	Internship 1	2			
Total Credits		**2**			
Senior Year (Year 4)					
Semester 7		Crds	**Semester 8**		Crds
IS040IU	Management Information System	3	IS028IU	Simulation Models in IE	4

IS026IU	Project Management	3	IS027IU	Scheduling & Sequencing	3
IS024IU	Probabilistic Models in OR	3	IS032IU	Facility Layout	3
IS025IU	Quality Management	3	IS078IU	Logistics engineering & supply chain design	3
IS___IU	**ISE Elective Course (choose 1 course below)**	**3**	IS079IU	Scientific Writing	2
IS031IU	Experimental Design		**IS___IU**	**ISE Elective Course (choose 1 course below)**	**3**
IS018IU	CAD/CAM		IS044IU	Computer Control Manufacturing Systems	
IS058IU	Time series & forecasting technique		IS068IU	Procurement Management	
Total Credits		**15**	**Total Credits**		**18**
Summer Semester		Crds			
IS053IU	Internship 2	3			
Total Credits		**3**			
Senior Year (Year 5)					
Semester 9		Crds	**Semester 10**		Crds
IS033IU	Multi-Criteria Decision Making	3	IS048IU	Thesis research	10
IS041IU	Lean Production	3			
IS___IU	**ISE Elective Course (choose 3 courses below)**	**9**			
IS080IU	Creative Thinking				
IS035IU	Systems Engineering				
IS043IU	Flexible Manufacturing Systems				
IS045IU	Leadership				
IS023IU	Inventory Management				
BA146IU	Retail Management				
IS067IU	International Transportation & Logistics				
IS062IU	E-Logistics in Supply Chain Management				
Total Credits		**15**	**Total Credits**		**10**

TWINNING PROGRAM

(Curricular for the first two years in IU)

5. IU-RG (Rutgers University) PROGRAM

5.1 English Level 1: TOEFL ≥ 500

TOTAL CREDITS: 74

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN007RG	Writing AE1	2	EN011RG	Writing AE2	2
EN008RG	Listening AE1	2	EN012RG	Speaking AE2	2
MA001RG	Calculus 1	4	MA003RG	Calculus 2	4
PH013RG	Physics 1	2	PE008RG	Critical Thinking	3
PH014RG	Physics 2	2	CH008RG	Analytical chemistry	3
CH011RG	Chemistry for Engineers	3	IS001RG	Introduction to Industrial Engineering	1
			IS002RG	Introduction to Computing	3
			IS005RG	Engineering Mechanics - Statics	3
	Total Credits	**16**		**Total Credits**	**21**
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
MA023RG	Calculus 3	4	MA024RG	Differential Equations	4
PH015RG	Physics 3	3	IS014RG	Analytical Physics IIB	3
PH016RG	Physics 3 Lab	1	IS015RG	Analytical Physics IIB Lab	1
IS006RG	IE Lab	2	IS016RG	Engineering Mechanics - Dynamics	3
IS004RG	Engineering Probalility	3	IS017RG	Work design & Ergonomics + Lab	4
IS013RG	Mechanics of Solids	3	IS003RG	Introduction to Microeconomic	3
			IS012RG	Introduction to Macroeconomics	3
	Total Credits	**16**		**Total Credits**	**21**

5.2 English Level 1: 430 ≤ TOEFL < 500

TOTAL CREDITS: 90

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN075RG	Listening & Speaking IE2	8	CH011RG	Chemistry for Engineers	3
EN074RG	Reading & Writing IE2	8	CH012RG	Chemistry Laboratory	1
MA001RG	Calculus 1	4	MA003RG	Calculus 2	4
PH013RG	Physics 1	2	IS005RG	Engineering Mechanics – Statics	3
PH014RG	Physics 2	2	PE008RG	Critical thinking	3
			EN007RG	Writing AE1	2
			EN008RG	Listening AE1	2
			IS001RG	Introduction to Industrial Engineering	1
	Total Credits	**24**		**Total Credits**	**19**
Summer Semester		Crds			
EN011RG	Writing AE2	2			
EN012RG	Listening AE2	2			
	Total Credits	**4**			
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
MA023RG	Calculus 3	4	MA024RG	Differential Equations	4
PH015RG	Physics 3	3	IS014RG	Analytical Physics IIB	3
PH016RG	Physics 3 Lab	1	IS015RG	Analytical Physics IIB Lab	1
IS006RG	IE lab	2	IS016RG	Engineering Mechanics – Dynamics	3
IS004RG	Engineering Probability	3	IS003RG	Introduction to Microeconomic	3
IS013RG	Mechanics of Solids	3	IS012RG	Introduction to Macro economics	3

CH008RG	Analytical chemistry	3	IS017RG	Work design & Ergonomics + Lab	4
			IS002RG	Introduction to Computing	3
	Total Credits	**19**		**Total Credits**	**24**

5.3 English Level 1: TOEFL < 430

TOTAL CREDITS: 112

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN072RG	Reading & writing IE1	11	EN075RG	Listening & Speaking IE2	8
EN073RG	Listening & speaking IE1	11	EN074RG	Reading & Writing IE2	8
			PH013RG	Physics 1	2
			PH014RG	Physics 2	2
			MA001RG	Calculus 1	4
			IS001RG	Introduction to IE	1
	Total Credits	**22**		**Total Credits**	**24**
Summer Semester		Crds			
EN007RG	Writing AE1	2			
EN008RG	Listening AE1	2			
MA003RG	Calculus 2	4			
	Total Credits	**8**			
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
CH011RG	Chemistry for Engineers	3	CH008RG	Analytical chemistry	4
CH012RG	Chemistry Laboratory	1	IS005RG	Engineering Mechanics – Statics	3
IS006RG	IE lab	2	IS002RG	Introduction to Computing	3
IS004RG	Engineering Probability	3	IS017RG	Work design & Ergonomics + Lab	4
MA023RG	Calculus 3 (Multi-variable Calculus)	4	IS013RG	Mechanics of Solids	3
EN011RG	Writing AE2	2	IS003RG	Introduction to Microeconomic	3
EN012RG	Speaking AE2	2	IS012RG	Introduction to Macro economics	3

	Total Credits	**17**	**Total Credits**	**23**
Junior Year (Year 3)				
Semester 5		Crds		
MA024RG	Differential Equations	4		
PH015RG	Physics 3	3		
PH016RG	Physics 3 Lab	1		
IS016RG	Engineering Mechanics – Dynamics	3		
IS014RG	Analytical Physics IIB	3		
IS015RG	Analytical Physics IIB Lab	1		
PE008RG	Critical thinking	3		
	Total Credits	**18**		

6. IU-SB PROGRAM (The State University of New York, University at Binghamton)

6.1 English Level 1: TOEFL ≥ 500

TOTAL CREDITS: 58

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN007SB	Writing AE1	2	EN011SB	Writing AE2	2
EN008SB	Listening AE1	2	EN012SB	Speaking AE2	2
MA001SB	Calculus 1	4	MA003SB	Calculus 2	4
PH013SB	Physics 1	2	PE008SB	Critical Thinking	3
PH014SB	Physics 2	2	IS001SB	Introduction to Industrial Engineering	1
CH011SB	Chemistry for Engineers	3	IS005SB	Engineering Mechanics - Statics	3
CH012SB	Chemistry Laboratory	1	PT002SB	Physical Training 2	0
PT001SB	Physical Training 1	0			
	Total Credits	**16**		**Total Credits**	**15**
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
MA024RG, MA023SB	Differential Equations or Cal 3	4	MA028SB	Applied Linear Algebra	4
PH015SB	Physics 3	3	IS017SB	Human Factors	4
PH016SB	Physics 3 Lab	1	IS002SB	Introduction to Computing	3
IS006SB	IE Lab	2	PH012SB	Physics 4	2
IS004SB	Engineering Probability	4			
	Total Credits	**14**		**Total Credits**	**13**

6.2 English Level 1: 430 ≤ TOEFL < 500

TOTAL CREDITS: 74

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN075SB	Listening & Speaking IE2	8	EN007SB	Writing AE1	2
EN074SB	Reading & Writing IE2	8	EN008SB	Listening AE1	2
MA001SB	Calculus 1	4	MA003SB	Calculus 2	4
CH011SB	Chemistry for Engineers	3	PH013SB	Physics 1	2
CH012SB	Chemistry Laboratory	1	PH014SB	Physics 2	2
PT001SB	Physical Training 1	0	IS005SB	Engineering Mechanics – Statics	3
			PT002SB	Physical Training 2	0
			IS001SB	Introduction to Industrial Engineering	1
	Total Credits	**24**		**Total Credits**	**16**
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
EN011SB	Writing AE2	2	MA028SB	Applied Linear Algebra	4
EN012SB	Listening AE2	2	PE008SB	Critical thinking	3
MA024RG or MA023SB	Differential Equations or Cal 3	4	IS002SB	Introduction to Computing	3
PH015SB	Physics 3	3	IS017SB	Human Factors	4
PH016SB	Physics 3 Lab	1	PH012SB	Physics 4	2
IS006SB	IE lab	2			
IS004SB	Engineering Probability	4			
	Total Credits	**18**		**Total Credits**	**16**

6.3 English Level 1: TOEFL < 430

TOTAL CREDITS: 96

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN073SB	Listening & Speaking IE1	11	EN075SB	Listening & Speaking IE2	8
EN072SB	Reading & Writing IE1	11	EN074SB	Reading & Writing IE2	8
PT001SB	Physical Training 1	0	PH013SB	Physics 1	2
			MA001SB	Calculus 1	4
			IS001SB	Introduction to IE	1
			PT002SB	Physical training 2	0
	Total Credits	**22**		**Total Credits**	**23**
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
CH011SB	Chemistry for Engineers	3	MA024RG, MA023SB	Differential Equations or Cal 3	4
CH012SB	Chemistry Laboratory	1	IS017SB	Human Factors	4
MA003SB	Calculus 2	4	IS005SB	Engineering Mechanics – Statics	3
PH014SB	Physics 2	2	IS002SB	Introduction to Computing	3
IS006SB	IE lab	2	EN011SB	Writing AE2	2
EN007SB	Writing AE1	2	EN012SB	Listening AE2	2
EN008SB	Listening AE1	2			
	Total Credits	**16**		**Total Credits**	**18**

Junior Year (Year 3)		
Semester 5		Crds
PE008SB	Critical thinking	3
PH015SB	Physics 3	3
PH016SB	Physics 3 Lab	1
IS004SB	Engineering Probability	4
MA028SB	Applied Linear Algebra	4
PH012SB	Physics 4	2
	Total Credits	**14**

***Subject to change. The RG ISE and SB ISE curricular for students whose TOEFL scores below 500 provided here are just examples based on their English levels at the year of intake. The subjects to be taken are usually fixed in the freshmen year but might be varied in the years following, depending on their progress in English which is frequently assessed by every semester. The students will be counseled by their appointed advisors on the subjects to be taken in the new semester.*

LOGISTICS & SCM PROGRAM

7. LOGISTICS & SCM PROGRAM (for batch 2014 and forwards)

7.1 English Level 1: TOEFL ≥ 500

TOTAL CREDITS: 143

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN007IU	Writing AE1	2	EN011IU	Writing AE2	2
EN008IU	Listening AE1	2	EN012IU	Speaking AE2	2
MA001IU	Calculus 1	4	MA003IU	Calculus 2	4
PH013IU	Physics 1	2	PE008IU	Critical Thinking	3
PH014IU	Physics 2	2	PT002IU	Physical Training 2	0
PT001IU	Physical Training 1	0	IS056IU	Introduction to Logistics & Supply Chain Management	1
CH011IU	Chemistry for Engineers	3	IS054IU	Engineering Drawing	3
			PH015IU	Physics 3	3
	Total Credits	**15**		**Total Credits**	**18**
Summer Semester		Crds			
PE011IU	Principles of Marxism	5			
PE012IU	HCM' s thoughts	2			
PE013IU	Revolutionary Lines of Vietnamese Communist Party	3			
	Total Credits	**10**			

Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
IS019IU	Production Management	3	IS020IU	Engineering Economy	3
IS076IU	Introduction to Computing – MatLab Application	3	IS021IU	Deterministic models in OR	4
IS004IU	Engineering Probability & Statistics	4	IS057IU	Warehouse Engineering Management	3
IS055IU	Principles of Logistics and Supply Chain Management	3	IS077IU	Introduction to Programming – C++/C# , Python	2
BA081IU	Business Law	3	BA003IU	Principles Of Marketing	3
MA027IU	Applied Linear Algebra	2	BA084IU	Import – Export Management	3
	Total Credits	**18**		**Total Credits**	**18**
Summer Semester		Crds			
IS052IU	Internship 1	2			
	Military Training	0			
	Total Credits	**2**			
Junior Year (Year 3)					
Semester 5		Crds	**Semester 6**		Crds
IS061IU	Information Systems in Supply Chain	3	IS073IU	Scientific Writing	2
IS023IU	Inventory Management	3	IS028IU	Simulation Models in IE	4
IS059IU	Materials Handling Systems	3	IS027IU	Scheduling & Sequencing	3
BA146IU	Retail Management	3	IS078IU	Logistic engineering & supply chain design	3
IS___IU	**ISE Elective Course (choose 1 course below)**	**3**	IS068IU	Procurement Management	3
IS058IU	Time series & forecasting techniques		BA184IU	Financial Accounting	4

IS024IU	Probabilistic Models in OR				
IS035IU	Systems Engineering				
	Total Credits	**15**		**Total Credits**	**19**
Summer Semester		Crds			
IS053IU	Internship 2	3			
	Total Credits	**3**			
Senior Year (Year 4)					
Semester 7		Crds	**Semester 8**		Crds
IS033IU	Multi-Criteria Decision Making	3	IS048IU	Thesis research	10
IS067IU	International Transportation & Logistics	3			
IS026IU	Project Management	3			
IS___IU	**ISE Elective Course (choose 2 courses below)**	**6**			
IS025IU	Quality Management				
IS062IU	E-Logistics in Supply chain management				
IS063IU	Sustainability in Supply Chain				
IS064IU	Entrepreneurship In Supply Chain				
IS065IU	Supply Security And Risk Management				
IS066IU	Data Mining In Supply Chain				
IS072IU	Port Planning and Operations				
IS074IU	Creative Thinking				
BA028IU	Organizational Behavior				

BA032IU	Sales Management				
IS045IU	Leadership				
BA079IU	Foundations of Human Resource Management				
	Total Credits	**15**		**Total Credits**	**10**

7.2 English Level 1: 430 ≤ TOEFL < 500

TOTAL CREDITS: 159

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN074IU	Reading & writing IE2	8	EN007IU	Writing AE1	2
EN075IU	Listening & speaking IE2	8	EN008IU	Listening AE1	2
PT001IU	Physical Training 1	0	MA003IU	Calculus 2	4
MA001IU	Calculus 1	4	IS056IU	Introduction to Logistics & Supply Chain Management	1
			PT002IU	Physical Training 2	0
			PH013IU	Physics 1	2
			PH014IU	Physics 2	2
			CH011IU	Chemistry for Engineers	3
Total Credits		**20**	**Total Credits**		**16**
Summer Semester		Crds			
PE011IU	Principles of Marxism	5			
PE012IU	HCM' s thoughts	2			
PE013IU	Revolutionary Lines of Vietnamese Communist Party	3			
Total Credits		**10**			
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
EN011IU	Writing AE2	2	IS020IU	Engineering Economy	3
EN012IU	Speaking AE2	2	IS021IU	Deterministic models in OR	4
IS019IU	Production Management	3	PE008IU	Critical Thinking	3
IS004IU	Engineering Probability & Statistics	4	BA003IU	Principles Of Marketing	3
IS055IU	Principles of Logistics and Supply Chain Management	3	IS054IU	Engineering Drawing	3
PH015IU	Physics 3	3			
MA027IU	Applied Linear Algebra	2			
Total Credits		**19**	**Total Credits**		**16**

Summer Semester		Crds
	Military Training	0
Total Credits		**0**

Junior Year (Year 3)					
Semester 5		Crds	**Semester 6**		Crds
IS076IU	Introduction to Computing – MatLab Application	3	IS077IU	Introduction to Programming – C++/C# , Python	2
BA081IU	Business Law	3	BA084IU	Import – Export Management	3
IS061IU	Information systems in Supply chain	3	IS073IU	Scientific Writing	2
IS023IU	Inventory Management	3	BA184IU	Financial Accounting	4
IS059IU	Materials Handling Systems	3	BA146IU	Retail Management	3
IS___IU	**ISE Elective Course (choose 1 course below)**	**3**	IS057IU	Warehouse Engineering Management	3
IS058IU	Time series & forecasting techniques				
IS024IU	Probabilistic Models in OR				
IS035IU	Systems Engineering				
Total Credits		**18**	**Total Credits**		**17**

Summer Semester		Crds
IS052IU	Internship 1	2
Total Credits		**2**

Senior Year (Year 4)					
Semester 7		Crds	**Semester 8**		Crds
IS026IU	Project Management	3	IS028IU	Simulation Models in IE	4
IS067IU	International Transportation & Logistics	3	IS027IU	Scheduling & Sequencing	3
IS032IU	Multi-Criteria Decision Making	3	IS078IU	Logistic engineering & supply chain design	3
IS___IU	**ISE Elective Course (choose 2 course below)**	**6**	IS068IU	Procurement Management	3
IS025IU	Quality Management				
IS062IU	E-Logistics in Supply chain management				
IS063IU	Sustainability in Supply Chain				

IS065IU	Supply Security And Risk Management				
IS066IU	Data Mining In Supply Chain				
IS072IU	Port Planning and Operations				
BA028IU	Organizational Behavior				
BA032IU	Sales Management				
IS045IU	Leadership				
IS074IU	Creative Thinking				
BA079IU	Foundations of Human Resource Management				
IS064IU	Entrepreneurship In Supply Chain				
Total Credits		**15**	**Total Credits**		**13**
Summer Semester		Crds			
IS053IU	Internship 2	3			
Total Credits		**3**			
Senior Year (Year 5)					
Semester 9		Crds			
IS048IU	Thesis research	10			
Total Credits		**10**			

7.3 English Level 3: TOEFL < 430

TOTAL CREDITS: 181

Freshman Year (Year 1)					
Semester 1		Crds	**Semester 2**		Crds
EN072IU	Reading & writing IE1	11	EN074IU	Reading & writing IE2	8
EN073IU	Listening & speaking IE1	11	EN075IU	Listening & speaking IE2	8
PT001IU	Physical Training 1	0	MA001IU	Calculus 1	4
			PT002IU	Physical Training 2	0
			IS056IU	Introduction to Logistics & Supply Chain Management	1
	Total Credits	**22**		**Total Credits**	**21**
Summer Semester		Crds			
PE011IU	Principles of Marxism	5			
PE012IU	HCM' s thoughts	2			
PE013IU	Revolutionary Lines of Vietnamese Communist Party	3			
	Total Credits	**10**			
Sophomore Year (Year 2)					
Semester 3		Crds	**Semester 4**		Crds
MA027IU	Applied Linear Algebra	2	EN011IU	Writing AE2	2
EN007IU	Writing AE1	2	EN012IU	Speaking AE2	2
EN008IU	Listening AE1	2	PE008IU	Critical Thinking	3
CH011IU	Chemistry for Engineers	3	IS054IU	Engineering Drawing	3
PH013IU	Physics 1	2	PH015IU	Physics 3	3
PH014IU	Physics 2	2	IS077IU	Introduction to Programming – $C^{++}/C^{\#}$, Python	2
MA003IU	Calculus 2	4			
	Total Credits	**17**		**Total Credits**	**15**
Summer Semester		Crds			
	Military Training	0			
	Total Credits	**0**			
Junior Year (Year 3)					
Semester 5		Crds	**Semester 6**		Crds
IS019IU	Production Management	3	IS021IU	Deterministic models in OR	4

IS076IU	Introduction to Computing – MatLab Application	3	IS020IU	Engineering Economy	3
IS055IU	Principles Logistics and Supply Chain Management	3	IS057IU	Warehouse Engineering Management	3
BA081IU	Business Law	3	BA184IU	Financial Accounting	4
IS004IU	Engineering Probability & Statistics	4	BA003IU	Principles Of Marketing	3
			BA084IU	Import – Export Management	3
Total Credits		**16**	**Total Credits**		**20**
Summer semester		Crds			
IS052IU	Internship 1	2			
Total Credits		**2**			
Senior Year (Year 4)					
Semester 7		Crds	**Semester 8**		Crds
IS061IU	Information systems in Supply chain	3	IS028IU	Simulation Models in IE	4
IS023IU	Inventory Management	3	IS027IU	Scheduling & Sequencing	3
IS059IU	Materials Handling Systems	3	IS078IU	Logistic engineering & supply chain design	3
BA146IU	Retail Management	3	IS068IU	Procurement Management	3
IS___IU	**ISE Elective Course (choose 1 course below)**	**3**	IS073IU	Scientific Writing	2
IS058IU	Time series & forecasting techniques				
IS024IU	Probabilistic Models in OR				
IS035IU	Systems Engineering				
Total Credits		**15**	**Total Credits**		**15**
Summer Semester		Crds			
IS047IU	Internship 2	3			
Total Credits		**3**			
Senior Year (Year 5)					
Semester 9		Crds	Semester 8		Crds
IS032IU	Multi-Criteria Decision Making	3	IS048IU	**Thesis research**	10
IS067IU	International Transportation & Logistics	3			
IS026IU	Project Management	3			
IS___IU	**ISE Elective Course (choose 2 courses below)**	**6**			
IS025IU	Quality Management				

IS062IU	E-Logistics in Supply chain management			
IS063IU	Sustainability in Supply Chain			
IS064IU	Entrepreneurship In Supply Chain			
IS065IU	Supply Security And Risk Management			
IS066IU	Data Mining In Supply Chain			
IS072IU	Port Planning and Operations			
BA028IU	Organizational Behavior			
BA032IU	Sales Management			
IS045IU	Leadership			
IS074IU	Creative Thinking			
BA079IU	Foundations of Human Resource Management			
Total Credits		**15**	**Total credits**	**10**

8. COURSE DESCRIPTION

EN007IU Writing Academic English 1 2 credits

This course provides students with instruction and practice in essay writing, including transforming ideas into different functions of writing such as definitions, classifications, cause – effects, arguments. Through reading a few representative university-level texts, students will develop the ability to read critically and write accurately, coherently, and in appropriate academic style in response to those texts. They will also practice necessary skills to write a research report.

EN008IU Listening Academic English 1 2 credits

To provide students with the study skills needed to listen to academic lectures, take effective notes and prepare for examinations.

EN011IU Writing Academic English 2 2 credits

This course provides an overview of the organizational format for a research paper and assists students in completing research projects in any content area course by providing assistance in writing effective research papers using a step-by-step process approach. Course content includes the components of a research paper, and techniques of selecting and narrowing topics; writing argumentative thesis statements; outlining; locating and documenting sources; taking notes. Students also have to read extensively about a chosen topic to explore different ideas of multiple authors about that topic. Students work with projects relating to their content area courses.

Prerequisite: *EN007 & EN008 (Academic English 1)*

EN012IU Speaking Academic English 2 2 credits

Students are provided with practical strategies for effective presentations. They also have chance to practice giving presentations in class and receive feedback.

Prerequisite: *EN007 & EN008 (Academic English 1)*

PE011IU Principles of Marxism 2 credits

The first chapter will give a general introduction about the Marxism and the content of the course. The remaining part of the course will be divided into three sections: Section 1 includes the basic concepts of the worldview and methodology of Marxism; Section 2 covers the economic theory of Marxism on the capitalist modes of production; Section 3 includes basic reasoning of Marxism on the socialism and the prospects of real socialism.

PE012IU HCM' s Thoughts 2 credits

The course includes 7 chapters: Chapter 1 presents the basis and the development process of Ho Chi Minh's thoughts; the remaining chapters cover the basic contents of Ho Chi Minh's thoughts according to the course objectives.

PE013IU Revolutionary Lines of Vietnamese Communist Party 3 credits

The course will provide students with the basic knowledge of the revolutionary lines of the Party, especially in the innovative periods.

MA001IU Calculus 1 4 credits

Functions; Limits; Continuity; Derivatives, Differentiation, Derivatives of Basic Elementary Functions, Differentiation Rules; Applications of Differentiation: L'Hôpital's Rule, Optimization, Newton's Method; Anti-derivatives; Indefinite Integrals, Definite Integrals, Fundamental Theorem of Calculus; Techniques of Integration; Improper Integrals; Applications of Integration.

MA003IU Calculus 2 4 credits

Sequence and Series; Convergence Tests; Power Series; Taylor and Maclaurin Series; Cartesian Coordinates; Lines, Planes and Surfaces; Derivatives and Integrals of Vector Functions, Arc Length and Curvature, Parametric Surfaces; Functions of Several Variables; Limits, Continuity, Partial Derivatives, Tangent Planes; Gradient Vectors; Extrema; Lagrange Multipliers; Multiple Integrals: Double Integrals, Triple Integrals, Techniques of Integration; Vector Fields, Line Integrals, Surface Integrals.

Prerequisite: *MA001 (Calculus 1)*

MA023IU Calculus 3 4 credits

Complex numbers, complex series, complex functions, complex derivatives; Laplace transform, z-transform, Fourier series, Fourier transform, the inverse transform, transforms of derivatives and integrals, first-order differential equations, second-order differential equations, difference equations, applications to electrical circuits and signal processing.

Prerequisite: *MA003 (Calculus 2)*

MA024IU Differential Equations 4 credits

First-order differential equations, second-order linear differential equations, undetermined coefficients, variation of parameters, applications, higher-order linear differential equations, systems of first-order linear equations, elementary partial differential equations and the method of separation of variables.

Prerequisite: *MA003 (Calculus 2)*

PH013IU Physic 1 2 credits

An introduction to mechanics including: planar forces, free body diagrams, planar equilibrium of rigid bodies, friction, distributed forces, shear force and bending moment diagrams, simple stress and strain and associated material properties, kinematics and kinetic of particles, work and energy, motion of rigid bodies in a plane.

PH014IU Physic 2 2 credits

This course provides students basic knowledge about fluid mechanics; macroscopic description of gases; heat and the first law of thermodynamics; heat engines and the second law of thermodynamics; microscopic description of gases and the kinetic theory of gases.

PH015IU Physic 3 3 credits

To provide a thorough introduction to the basic principles of physics to physics and engineering students in order to prepare them for further study in physics and to support their understanding and design of practical applications in their fields. Content: Electrostatics, particles in electric and magnetic fields, electromagnetism, circuits, Maxwell's equations, electromagnetic radiation.

Co-requisite*: PH016 (Physic 3 Laboratory)*

PH016IU Physic 3 Lab 1 credits

Physics 3 Lab is an experimental course on electricity and magnetism given to undergraduate students who attended Physics 3 (Electricity and Magnetism). Each student will do eight different experiments in a small group, and then write a lab report based on the experimental results.

PH012IU Physic 4 2 credits

- Know and understand basic physical processes and phenomena.
- Solve basic physics problem by applying both theoretical and experimental techniques.
- Understand and acquire skills needed to use physical laws governing real process and to solve them in the engineering environment.

CH011IU Chemistry for Engineers 3 credits

This course is designed for non-chemistry majors, as it is intended for students pursuing a degree in information technology, electronic and telecommunication. The course is designed to provide a strong background in the fundamentals of chemistry, preparing students for further study in their major field. Topics include important principles, theories, concepts of chemistry, and chemical calculations necessary for a comprehension of the structure of matter, the chemical actions of the common elements and compounds. The impact of chemistry on everyday life and on the environment is also introduced wherever possible.

Prerequisite: *Co-requisite: CH012 (Chemistry for Engineers Laboratory)*

PE008IU Critical Thinking 3 credits

This course aims to introduce to you the fundamentals of critical thinking. Its course integrates basic critical thinking, persuasive communication, and related errors in thinking lessons with examination of arguments from several sources, including literature, politics, commercials, and the media.

The primary focus of this course is the development of critical skills. To this end, you will learn to identify common fallacies, reflect on the use of language for the purpose of presentation, and think critically about ethical judgments, advertisement, TV and film, magazines and newspapers.

IS001IU Introduction to Industrial Engineering 1 credits

Introduction to basic engineering concepts. Opportunities are provided to develop skills in oral and written communication, and department-specific material. Case studies are presented and analyzed.

IS002IU Introduction to Computing – Matlab Application 3 credits

Introduction to MATLAB, a powerful programming package for engineers and scientists. Students will learn the fundamentals of MATLAB, how to write programs in MATLAB, and how to solve engineering problems using MATLAB. Emphasis on problem-solving skills and mathematical tools of importance in engineering.

IS003RG Introduction to Microeconomic 3 credits

This course seeks to provide an in-depth understanding of basic economic concepts and scare resources, market in which supply, demand and prices are examined in connection with consumers as well as producer behavior. The students can also evaluate various types of market structures as well as the Government intervention

into the market. The subject also provides the students with necessary abilities to evaluate economic variables of efficiency. All of the help students plan for a company's short-run and long-run development more effectively with consideration of effects of the government's policies.

IS004IU Engineering Probability & Statistics 4 credits

The aim of this course is to examine various concepts in probability and statistics. This course also discusses various statistical techniques and the use of them in practical situations. Key topics of this course include: descriptive statistics, discrete and continuous random variables, sampling and sampling distributions, confidence intervals, hypothesis testing, analysis of variance, simple linear and multiple regressions.

IS004RG Mechanics of Solids 3 credits

Axial force, shear, moment, and torque in structural members; stress, strain, and stress-strain relations; principal stresses and strains; torsion of circular shafts; bending of singly symmetric beams; compound loading; buckling of columns; statically indeterminate systems.

IS005IU Engineering Mechanics – Statics 3 credits

The classification of systems of forces and their resultants; geometrical and analytical conditions for the equilibrium of force systems, frames and trusses, friction, parabolic and catenary cables, centers of gravity.

IS006IU Introduction to Programming – C++/C# , Python 2 credits

Introduction to programming in C++. Operators and the C++ system; fundamental data types; flow of control; functions; arrays, pointers, and strings; application of C++ for solving engineering problems and numerical analyses.

IS012RG Introduction to Macro economics 3 credits

Knowledge in the subject would enable the students not only to understand various broad economic issues of a country or a region but also to evaluate macroeconomic policies as well as economic fluctuations both in a country and in the world. The subject also provides the students with necessary abilities to evaluate economic variables as a whole. All of this helps the students plan for a company's short- run and long-run development more effectively with consideration of effects of the government's macroeconomic policies.

IS014IU Analytical Physics 2B 3 credits

IS015IU Analytical Physics 2B Lab 1 credit

The course covers the fundamental ideas of geometrical and wave optics and of modern physics (relativity, quantum, atomic, nuclear and particle physics). It thus gives an understanding of the nature and behaviors of light, electrons, atoms and nuclei, which are fundamental to a wide range of modern technologies. Tracing the historical development these subjects, it explains why relativity and quantum mechanics are needed, the key equations and concepts, and their applications in diverse fields from telecommunications to nuclear power.

IS016IU Engineering Mechanics – Dynamics 3 credits

Kinematics of particles to rigid bodies, rotation of a rigid body, plane motion of a rigid body, relative motion, the principles of work and energy, impulse and momentum, impact.

IS017IU Work Design & Ergonomics 4 credits

Problem solving tools (recording and analysis tools, activity charts, line balancing). Operation analysis, manual work design (principles of motion economy, motion study). Time study (performance rating and allowances). Work sampling, predetermined time systems. Work environment design.

IS017SB Human Factors 3 credits

Introduction: Historical background, definition, importance. Human Machine Systems/ interfaces, Ergonomics at Work Place. Anthropometric Principles, Anthropometric Data – Sample, equipment, analysis. Applied Anthropometry and Work Space Design & Seating, Product design. Work related musculoskeletal disorders, visual environment, thermal environment, auditory environment, vibrations. Legal and Safety Aspects

***Prerequisite**: Engineering Probability & Statistics*

***Laboratory**: This lab gives students opportunities to perform hands-on experimentation in human factors*

IS018IU CAD/CAM 3 credits

This course introduces you to modern manufacturing with three areas of emphasis: computer aided design, computer aided manufacturing, and computer aided process planning.

This course provides the important theory, concepts, technology, and the state-of-the-art development in CAD/CAM. It is very important to understand how the CAD/CAM systems work and know the current industry status. The subjects covered in this class include part design specification, NC programming, process planning, and Computer aided process planning (CAPP), CAD and CAM systems, and CAD/CAM data exchange.

IS019IU Production Management 3 credits

Introduction to production systems. Production planning and control in decision making. Forecasting. Aggregate production planning. Capacity planning. Materials requirement planning. Scheduling. Advanced techniques and approaches in modern production planning and control for designing manufacturing and service systems.

IS020IU Engineering Economy 3 credits

Economic decisions involving engineering alternatives; annual cost, present worth, rate of return, and benefit-to-cost; before and after tax replacement economy; organizational financing; break-even charts; unit and minimum-cost public sector studies.

IS021IU Deterministic Models in Operations Research 4 credits

Elements of problem solving and algorithmic design. Use of numerical analysis and linear algebra to solve industrial engineering problems. Topics to be covered include: problem formulations, simplex method in tableau form, duality theory, an introduction to the geometry of the simplex method, sensitivity analysis, transportation and network flow problems, optimality conditions and basic numerical methods for nonlinear programs.

IS022IU Database Systems 3 credits

Introduce the fundamental concepts necessary for the design and use of modern database systems. Examine the concepts in the order that encountering them in the actual database design process. Discuss various forms for relations that possess good properties. Discuss how to use the relational database language SQL to define the relations and to write SQL statements to insert, delete, retrieve and update the data. Examine some of the fundamental storage structures that are used in relational database systems. Discuss some advanced topics in the database management area.

IS023IU Inventory Management 3 credits

Every organization holds stocks of materials to allow for variations and uncertainty in supply and demand. Stocks are replenished by deliveries from suppliers and reduced to meet demands from customers. Inventory management is responsible for all aspects of stock control. High stock buffer comes at a high price and organizations are continually looking for ways of reducing their inventory costs without affecting service.

This course provides students with an understanding of the principles, processes and methods for the effective management of inventory in relation to other activities in the supply chain. The course examines both the independent demand and dependent demand methods. Attention is given to the information needed to support these methods, including information from the inventory management information system, forecasts of demand and planned operations.

IS024IU Probability Models in Operations Research 3 credits

To introduce the student into basic topics of mathematical modeling process of decision problems in complex stochastic industrial environments. This course covers stochastic operations research models, algorithms, and applications. Markov chains and queuing models are discussed. Renewal theory, reliability theory, and stochastic models for manufacturing systems are also taken into consideration. Students will acquire in this course the basis for the study of other probabilistic topics in their curriculum.

IS025IU Quality Management 3 credits

This course introduces to the principles of quality management, with an emphasis on cross-functional problem solving. It provides methods for quality planning, improvement and control with applications in manufacturing and service. The students also gain a basic understanding of the philosophy, conceptual frameworks and the tools of the Total Quality Management.

IS026IU Project Management 3 credits

Project management" course is developed to provide the principal concept on project management which was characterized by the project management body of knowledge guide (PMBOK Guide). The course emphasizes the five project process groups of initiating, planning, executing, controlling and closing, and the nine knowledge areas of project integration, scope, time, cost, quality, human resources, communication, risk, and procurement management.

In addition, this course also provides a computer aid for project management by introducing the application of Microsoft Project and project scheduling.

IS027IU Scheduling and Sequencing 3 credits

This course gives an introduction to scheduling problems: techniques, principles, algorithms and computerized scheduling systems. Topics include scheduling algorithms for single machine, parallel machine, flow shop, job shop and also solution methodologies such as heuristic procedures, constructive algorithms, branch and bound approaches, and genetic algorithms.

IS028IU Simulation Models In IE 4 credits

Systems modeling and simulation techniques find applications in fields as diverse as physics, chemistry, biology, economics, medicine, computer science, and engineering. The purpose of this course is to introduce fundamental principles and concepts in the general area of systems modeling and simulation. Topics to be covered in this course include basics of discrete-event system simulation, mathematical and statistical models.

IS029IU Logistics Engineering and Supply Chain Design 3 credits

Logistics and Supply chain management involves a number of decisions that benefit by quantitative techniques of analysis and design. The course will explore modeling, computation implementation of solutions in some areas of Logistics and Supply Chain Management. The content also include material flow management across the supply chain, value management and analysis of total supply chain costs, robust design of supply chains, co-ordination of supply chain decisions and handling of uncertainties in supply chain management.

IS031IU Design of Experiments 3 credits

An applied statistics course on planning, statistical analysis, and interpretation of experiments of various types. Coverage includes factorial designs, randomized blocks, Latin squares, incomplete block designs, nested, crossover designs, and optimal design.

IS032IU Facility Layout 3 credits

This course focuses on the fundamentals of the design, layout, and location of industrial and nonmanufacturing facilities. Selection of machines and material handling equipment and their efficient arrangement. Emphasis on quantitative methods. Warehouse layout. Facility location theory.

IS033IU Multi- Criteria Decision Making 3 credits

Decision making is one of the important parts in operation research or management science. Decision making techniques help management to choose the best alternative based on quantitative criteria. This course provides students with basic knowledge about decision model formulation, so that they can make decisions based on the results of the models. This course also provides students with specific techniques for practical applications in production and services.

IS034IU Product Design and Development 3 credits

Product Design and Development course introduces to the students the role of multiple functions in creating a new product (*e.g.* marketing, finance, industrial design, engineering, production) as well as tools and methods for product design and development. Highlight of the course is the project in which the students will design a new product and produce a prototype version of it. Throughout the project, the students will apply their learned principles and methods of product development in a realistic context. The course also enables the students to coordinate interdisciplinary tasks in order to achieve a common objective.

IS040IU Management Information Systems 3 credits

Integrates topics of management and organization theory, information and communication theory, and systems theory relevant to managing an organization's information resources. Includes computer hardware and software, telecommunications, and database concepts and emphasizes the e-commerce and Internet based business models to get a competitiveness of global based business environments. This course meets the requirements for a Technology Intensive course.

IS043IU Flexible Manufacturing Systems 3 credits

This course studies the concept and method of flexible manufacturing system planning and control. The study covers flexible manufacturing system technology, flexible manufacturing system component, flexible manufacturing system performance evaluation: analytical model, simulation model, flexible manufacturing system configuration planning: routing optimization, capacity optimization, tools optimization, flexible manufacturing system production planning and control: batching, set-up planning. The course provides ability to plan and control flexible manufacturing system.

IS044IU Computer Controls of Manufacturing Systems 3 credits

Programmable automation applied to manufacturing. Controller architecture, sensors and automatic data acquisition, computer control of actuators, continuous and discrete control of processes, computer integration and local area networks.

IS045IU Leadership 3 credits

Organizational development and learning; leading learning organizations; leadership theories and perspectives, followership, leadership development; coaching and mentoring; leading groups and teams, leadership and diversity.

IS079IU Scientific Writing 2 credits

This course is offered for undergraduate students at ISE Department, IU. It aims to improve students' academic and scientific writing in English, and helps them successfully complete course reports, thesis, dissertations, and articles for publication as well as doing a proper presentation, etc. Upon completion of the course, we hope our students become more effective, more efficient, and more confident writers.

IS052IU Internship 1 2 credits

This course is an internship and is designed to supplement traditional classroom-based learning with experiential learning. The internship provides students with the opportunity to practically apply knowledge gained in their courses of Industrial & Systems Engineering.

Internships can be with a variety of host organizations, including foreign companies, government agencies and private industries. A minimum of 15 working days is required (5 days visit factory, 5 days write report, 5 days to get approval from supervisor). Whether the students have arranged their internship themselves or have been assisted in arranging one by the program assistant or other lecturers, they should let the program assistant know once there is a problem with the internship. The program coordinator can either intervene appropriately or see if the students can be transferred to a different company.

Students should be both supported and challenged and encouraged to take initiative and develop life-long learning skills. Each intern works under a site supervisor at the host organization and an advisor from IU (ISE's lecturer). The role of the site supervisor (or advisor) is to oversee the students and provide mentorship throughout the internship. The site supervisor and advisor will complete a performance evaluation form at the conclusion of the internship. Students will discuss their experiences through weekly reports and online discussions.

IS053IU Internship 2 3 credits

This course is an internship and is designed to supplement traditional classroom-based learning with experiential learning. The internship provides students with the opportunity to practically apply knowledge gained in their courses of Industrial & Systems Engineering.

Internships can be with a variety of host organizations, including foreign companies, government agencies and private industries. A minimum of 320 working hours or 40 working days is required. Whether the students have arranged their internship themselves or have been assisted in arranging one by the program assistant or other lecturers, they should let the program assistant know once there is a problem with the internship. The program coordinator can either intervene appropriately or see if the students can be transferred to a different company.

Students should be both supported and challenged and encouraged to take initiative and develop life-long learning skills. Each intern works under a site supervisor at the host organization and an advisor from IU (ISE's lecturer). The role of the site supervisor (or advisor) is to oversee the students and provide mentorship throughout the internship. The site supervisor and advisor will complete a performance evaluation form at the conclusion of the internship. Students will discuss their experiences through weekly reports and online discussions.

IS054IU Engineering Drawing 3 credits

This course provides students skills to present and interpret spatial models on planar models, present engineering drawings according to international standards (ISO). Methods of presenting models: orthogonal projection, isometric projection, oblique projection… Apply the projections to present objects in the drawings.

IS055IU Principles of Logistics and Supply Chain Management **3 credits**

This is an introductory course to Logistics and supply chain management (SCM). It provides an overview of fundamental concepts, business processes and models/tools. The objective of this course is to identify problems, issues and strategies in today's supply chain operations via real-world cases. Analytical models and technical tools are introduced as needed. This course combines SCM business knowledge with analytical thinking and pinpoints the role of SCM relative to other business disciplines. It serves as a roadmap to more in-depth courses on related topics.

IS056IU Introduction to Logistics and Supply Chain Management **3 credits**

This course focuses on familiarizing new Logistics & Supply Chain Management students to Logistics & Supply Chain Management in general and Logistics & Supply Chain Management at IU. The intention is to prepare students to become successful at IU and successful Logistics & Supply Chain Management Engineers.

IS057IU Warehouse Engineering Management **3 credits**

This course provides the students with an understanding of the principles, processes and techniques for the effective planning, management and operation of warehouses. Through this exposure, students will gain insights into how warehousing adds value to the organization's supply chain and how warehousing decisions impact the performance of the organization.

IS058IU Forecasting techniques 3 credits

The simplest definition of economic forecasting is that it is a process that has as its objective the prediction of future events or conditions to reduce that uncertainty so that our decisions will be better ones.

Specific objectives are to instruct you in:

1. the formulation and specification of forecasting models;
2. data collection, interpretation, organization, and analysis for building forecasting models;
3. fundamental statistical and probability concepts used in forecasting;
4. the existence of a hierarchy of forecasting models;
5. the use of econometric software in a lab setting.

IS059IU Materials Handling Systems 3 credits

Proper methods for material handling and storage including safety practices, proper equipment usage, engineering controls, and personal protective equipment. Included are procedures for storage of non-hazardous and hazardous materials, material handling equipment preventative maintenance, and motor fleet safety.

IS060IU Distribution Management 3 credits

Management of the firm's value-creation process from product development through order receipt and delivery to consumer. Alternative approaches to developing customer value and the role of the demand and supply chain in providing it.

IS061IU Information Systems in Supply Chain 3 credits

Internal and inter-organizational information systems necessary for a supply chain to achieve competitive advantage. Topics include: design, development, implementation, and maintenance of supply chain information systems; enterprise

resource planning; advanced planning and scheduling, manufacturing execution systems; and the interface between manufacturing planning and control processes, logistics processes, and the information system.

IS062IU E-Logistics in Supply Chain Management 3 credits

Comprehensive inquiry into the role of e-commerce in collaborative distribution and logistics relationships. Special attention is afforded to resource and technology interdependencies, exchange governance mechanisms and relationship management bench-marking. Emphasis is given to the tools for creating value in the supply chain.

IS063IU Sustainability in Supply Chain 3 credits

There is global experience and examples that show how comprehensive organizational environmental sustainability and archaeological criteria integrated into the supply chain management/procurement process and decision-making of public and private agencies, organizations and corporate entities can improve financial and environmental performance, while addressing ethics, social regeneration, resource/waste impacts and economic development concerns. This course will allow students to participate in applied research projects that include designing supply chain management and procurement systems and products, which address environmental, social and ethical considerations in organizational and corporate policy, program and reporting.

IS064IU Entrepreneurship in Supply Chain 3 credits

The nature and importance of entrepreneurship; forms of entrepreneurship; the entrepreneurial process; the entrepreneurial mind; creativity, ideas and innovation; screening entrepreneurial opportunities; identifying resources to support entrepreneurial activities; intellectual property issues; accessing finance and other resources; the entrepreneurial team; assessing risk; business structure and ethics; entrepreneurial strategy; finding and reaching customers and marketing innovation; feasibility planning.

IS065IU Supply Security and Risk Management 3 credits

Supply security and risk management have become major business concerns in view of the need to protect the supply chain and maintain business continuity in the wake of high-consequence disruptive events. This course is provides a broad overview of key supply chain security areas and issues in the context of homeland security.

IS066IU Data Mining in Supply Chain 3 credits

Data mining refers to a family of techniques used to detect interesting nuggets of relationships/knowledge in data. With the availability of large databases to store, manage and assimilate data, the new thrust of data mining lies at the intersection of database systems, artificial intelligence and algorithms that efficiently analyze data. The distributed nature of several databases, their size and the high complexity of many techniques present interesting computational challenges.

An overview of business intelligence in the field of supply chain management and marketing. Addresses how to leverage business intelligence systems to define KPIs, sharpen the accuracy of forecasting and planning, track business activities, and deliver dashboards, scorecards, strategic reporting, and operational/real-time reporting to enhance decision making for supply chain and marketing. SAP business intelligence solution is introduced to illustrate the concepts.

IS067IU International Transportation & Logistics 3 credits

Students learn the significance of international traffic and transport logistics. Student will learn basic methods and applications of operations research to implement, operate and optimize overall company material flow technical networks. This applies in particular to the subject of the optimal arrangement of sources and outflows and their dimension as well as their optimal interconnection from a transport technology point of view.

Topics include: requirements for logistics companies; active in road freight, rail, air and sea transport; competition in international transport; competition in international transport; cost accounting for freight forwarding; price setting in road freight, rail, air and sea transport; information management in freight forwarding.

IS068IU Procurement Management 3 credits

This unit covers the following: the role of Purchasing and Procurement in Supply Chain Management, purchasing procedures, supplier sourcing and management, negotiations, supplier relationships, specifying product quality, matching supply with demand and support tools for purchasing and procurement. Comprehensive theories and models developed by practitioners are examined.

IS072IU Port Planning and Operations 3 credits

This course provides the students with an understanding of port system, geographical location of ports, related planning and operational issues. Methods and processes for port planning and design. Besides that, the students are provided the knowledge about Inland connectivity, port's linkage to transport infrastructure, intermodal connections, and marine operations in ports. Traffic management, cargo handling, terminal operations, facilities and equipment, port security.

BA003IU Principles of Marketing 3 credits

The course of Principles of Marketing provides the students with necessary information on the basic concepts of Marketing. It focuses on the understanding of Market Demand and Customers Behaviors as well as Marketing strategies developed by firms in terms of Pricing, Product, Place, Promotion, etc. The course also mentions various methods to market research and environmental factors that affects the marketing activities.

BA028IU Organizational Behavior 3 credits

The nature of organizational behavior, individual behavior in organizations; personality; perception; motivation concepts; decision-making; cultural differences; leadership; managing and understanding groups and teams; influence and power; managing organizations through change; stress management and organizational culture.

BA032IU Sales Management 3 credits

Problems, policies, and functions of sales management as the vital link between selling and marketing. Role of the sales manager in the development of a successful salesforce. Topics include territory and market analyses, compensation, sales planning, and control.

BA079IU Foundations of Human Resource Management 3 credits

The effects of sociological, legal, economic, ethical, political, strategic and environmental changes, issues and developments on human resource management processes, practices, programs and policies.

BA081AU Business Law 3 credits

The aim of this course is to:

- Familiarize the student with legal language; basic concepts, principles and genral knowledge of business Law.
- Introduce to students about main business forms in Vietnam and regulations for each. Also, possibility of reorganization and Insolvency for enterprises, as main subject matter of this course.
- Increase the student's understanding of the Vietnamese regulations over business dispute resolution.
- Expose the student to legal reasoning and develop his/her ability to apply legal concepts.
- Introduce students to main trade international organizations and main international trade rules.
- Develop problem solving and legal analyzing skills and apply it to day-to-day practical situations.

BA084AU Import & Export Management 3 credits

The basic objective of this course is to provide to students with the necessary knowledge, skills and foundations for acquiring a wide range of rewarding careers into the rapidly expanding world of Import & Export Management. In addition, this course aims at imparting knowledge of trade procedures and documentation formalities with a view to enable the participants to develop a systematic approach in handling trade transaction and incidental paper work.

BA146IU Retail Management 3 credits

This course provides the student with a comprehensive view of retailing and an application of marketing concepts in a practical retail managerial environment. As a potential marketing manager, this course will give students insight into the retailing environment of which students will be a part and allow students to make informed decisions in your interaction with retailers. The course also provides a good foundation for those interested in owning or running a small retail business or those interested in pursuing a retail career as a merchandise buyer or store manager.

BA184IU Financial Accounting 4 credits

This course develops a basic understanding on the theories, principles, and applications of accounting and financial reporting, essentials in the US standard, including topics such as the theory of debit and credit, accounts, special journals, the accounting cycle, notes and interest, accruals and deferrals, cash, receivables, inventory, fixed assets, and the preparation of financial statements. In general, its primary aim is to provide the basic knowledge in preparing and processing accounting transactions in order to present financial details in a relevant and effective manner, as well as interpreting these accounting information for different types of external and internal investors, management and other accounting information users.

DISCIPLINARY PROCEDURES & RIGHTS

For more detail please take a look at the above announcement:

https://edusoftweb.hcmiu.edu.vn/Upload/Quy_che_hoc_che_tin_chi_VN.pdf

(Issued according to the decision No. 276/ QĐ-ĐHQT/ĐT date 10/9/2008 by The Principal of the International University HCM city)

STUDENT REGULATION

A1. PROGRAM TRANSFER REGULATION

1. **Changing majors with the degree awarded by the school:**
2. **Change the major from the sandwich program with degree awarded by a foreign school to a program awarded by The International University:**

A2. REGULATIONS FOR TEACHING CREDIT – BACHELOR LEVEL

1. **Academic program**
2. **Credits**
3. **Coureses, acdemic year and semesters**

3.1 Courses

3.2 Acdemic year and semester

4. **Classes**
5. **Subjects- Equivalent subjects - Subject's grade**

5.1 Subjects

5.2 Subject's grade

6. Semester GPA, cumulative GPA

6.1 Semester GPA,

6.2 Cumulative GPA

7. Cumulative credits

A3. STUDENT TYPES

1. Regular students

2. Stopped students

3. Students

A4. SUBJECT REGISTRATION

1. Registration process:

2. Subject registration:

2.1 Calendar adjustment:

2.2 Additional registration or subject cancellation process:

2.2.1 Regulations regarding adding or cancelling subjects:

2.2.2 Parallel studying for 2 programs:

2.2.3 Changing majors and programs conditions:

2.2.4 Changing school conditions:

A5. EVALUATE AND HANDLE ACADEMIC RESULT

Taking test regularly and take the final exam at the end of the course

1. Conditions to take the regular and final exam.

2. Methods of grade calculation, GPA and academic ranking result

3 Result announcement

4 Remark the exam

5 Disciplinary action against students

Handle the academic result:

1. Retake the course/subject

2. Improving grades

3. Academic warnings

4. Suspension of study and removal of name from the student list

5. Conditions to continue to study

6. Priority consideration for continue studying, dropping out

Conditions to receive thesis, graduation project, take the final exam:

Condition to consider and certified the graduation status:

Graduation rankings:

Withdrawal of diplomas or certificates:

A6. NECESSARY SAMPLE FORMS

The below link provides necessary sample forms during the time you study at IU:

http://ise.hcmiu.edu.vn/category/forms/ .