



CURRICULUM FRAMEWORK

BACHELOR OF ARTS IN ECONOMICS

PROGRAM CODE: 7310101

Applicable for Cohort 2025-2029 from Academic Year 2025-2026

*(Released along with Decision No. 459/2025/ QĐ-VUNI dated August 11th, 2025
by Provost of VinUniversity)*

***This curriculum framework has been reviewed and developed in
collaboration by Cornell University***



Records of changes

Version	Published date	Effective Date	Approved by	Description of changes
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1. PROGRAM OVERVIEW

1.1 Program Profile

Name of the degree	Bachelor of Arts in Economics
Name of the program	Bachelor of Arts in Economics
Program Code	7310101
Vietnam Qualifications Framework Level	6
Length of Program	4 years
Mode of Delivery	Full-time
Language of Delivery	English
Total credits	120 credits (without Minor) 135 credits (with Minor)
Home College	College of Arts and Sciences

1.2 Program Purpose

The overall objective of the Bachelor of Arts in Economics program is to train experts for businesses and organizations by equipping students with critical thinking, creativity, and analytical skills with the foundation of economic theory and tools. After completing the program, students are expected to gain comprehensive knowledge and thinking capacity, decision-making skills, grasp of market rules, and policy analysis to be able to work flexibly in suitable positions in economic, business, research, educational, governmental, and non-governmental organizations. In addition to the above, students are also expected to be able to pursue professional development in Master's and Doctoral programs in the same or other related fields at domestic and foreign universities.

2. PROGRAM EDUCATIONAL OBJECTIVES AND PROGRAM LEARNING OUTCOMES

2.1 Program Educational Objectives

PEO 1: Professional Competence and Adaptability

Graduates will apply comprehensive knowledge of economics, critical thinking, and analytical decision-making skills to perform effectively in diverse roles across economic, business, research, educational, governmental, and non-governmental organizations.

PEO 2: Policy and Market Insight

Graduates will demonstrate a sound understanding of market mechanisms and public policy frameworks, enabling them to contribute to evidence-based solutions in complex economic and societal contexts.

PEO 3: Lifelong Learning and Academic Advancement

Graduates will be prepared to pursue advanced studies and continuous professional development through Master's and Doctoral programs in economics and related disciplines, both in Vietnam and internationally.

2.2 Program Learning Outcomes

After successful completion of the program, students are able to:

PROGRAM LEARNING OUTCOMES (PLOs)	PERFORMANCE INDICATORS (PIs)
I. KNOWLEDGE	
I.1. General Knowledge	
PLO 1: Apply knowledge of politics, law, sustainability, cross-cultures, globalization, and arts and humanities to the field of Economics.	PI 1.1: Provide personal criticism on topics related to politics.
	PI 1.2: Apply knowledge of law and regulations to the field of Economics.
	PI 1.3: Apply knowledge of sustainability, cross-cultures, and globalization to the field of Economics.
	PI 1.4: Apply knowledge of arts and humanities to the field of Economics.
I.2. Foundational Knowledge	
PLO 2: Apply fundamental economic principles, and quantitative and analytical methods to analyze, model, and forecast economic phenomena.	PI 2.1: Apply fundamental economic concepts to analyze individual, market, and macroeconomic behavior.
	PI 2.2: Apply statistical and quantitative methods to analyze social and economic data.
	PI 2.3: Apply microeconomic models to analyze individual and market behavior and assess the impact of economic policies.
	PI 2.4: Apply econometric knowledge to model and forecast economic relationships and trends.
	PI 2.5: Apply knowledge about machine learning, big data, and artificial intelligence to analyze and interpret economic data for informed decision-making.
I.3. Professional Knowledge	
Enterprise, Market and Institutional Economics Focus	
PLO 3a: Solve complex challenges in enterprises, markets, technological changes, and policy environments by applying economic theories, institutional frameworks, and strategic decision-making methodology.	PI 3a.1: Apply game theory, behavioral insights, and strategic analysis to make appropriate economic and business decisions.
	PI 3a.2: Analyze the role of institutions, policies, and regulations in shaping economic behavior and market outcomes.

	PI 3a.3: Propose strategies for enterprises and policymakers to foster economic growth, stability, and equity. (E.X.C.E.L.)
	PI 3a.4: Solve complex challenges in enterprises.
Innovation Economics Focus	
PLO 3b: Forecast changes in technological innovations to address their challenges and how they affect organizations, society, and the economy.	PI 3b.1: Evaluate the impact of technological innovation on economic development, industrial transformation, and global competitiveness.
	PI 3b.2: Analyze the role of innovative systems in advancing science, technology, and economic growth.
	PI 3b.3: Solve complex challenges in technological changes in sustainable development.
Non-focus	
PLO 3c: Solve complex economic and economics-related challenges and problems by applying economic theories, institutional frameworks, and strategic decision-making methodology.	PI 3c.1: Apply economic theories and frameworks to make appropriate economic and business decisions.
	PI 3c.2: Solve economic and economics-related complex problems and challenges.
II. SKILLS	
II. 1. Professional Skills	
PLO 4: Apply quantitative methods and analytical tools to make informed decisions, solve complex problems, and contribute to sustainable economic development.	PI 4.1: Apply statistical techniques, quantitative methods and econometric tools to model, interpret, and forecast economic trends and behaviors.
	PI 4.2: Apply strategic decision-making, behavioral insights, and advanced tools to solve complex economic and business problems.
II.2. General Skills	
PLO 5: Conduct research to solve problems and discover knowledge in the field of Economics.	PI 5.1: Determine survey, experiment, or research objectives that meet societal needs or contribute to the development of the field.
	PI 5.2: Design surveys, experiments, or research using methods appropriate to the survey, experiment or research objectives.
	PI 5.3: Properly implement survey, experiment, or research methods.
	PI 5.4: Collect data and information that meet the requirements of the survey, experiment, or research.

	PI 5.5: Scientifically validate survey, experiment, or research results.
	PI 5.6: Draw appropriate conclusions and propose innovative solutions for applying survey, experiment, or research results in practice.
PLO 6 (Critical and Creative Thinking Skills): Demonstrate critical and creative thinking skills, and problem-solving skills.	PI 6.1: Generate arguments to formulate and test evidence-based solutions for addressing complex problems in the field of Economics.
	PI 6.2: Propose innovative solutions to address real-world problems. (E.X.C.E.L.)
	PI 6.3: Systematically solve practical issues in the field of Economics at local, regional, and global scales.
PLO 7 (Teamwork and Leadership Skills): Coordinate and lead diverse teams across disciplines and cultures.	PI 7.1: Demonstrate one's sense of autonomy, judgment, and adaptability when working in diverse teams across disciplines and cultures. (E.X.C.E.L.)
	PI 7.2: Lead and innovate within the corporate and organizational environment. (E.X.C.E.L.)
PLO 8 (Communication and Globalization Skills): Communicate effectively with a range of audiences across cultures.	PI 8.1: Communicate through multimedia formats using written and spoken language.
	PI 8.2: Navigate multicultural and globalized environments with adaptability and respect for both common standards and diverse perspectives. (E.X.C.E.L.)
III. ATTITUDE	
PLO 9 (Ethics, Responsibility): Demonstrate professional ethics and social responsibility as both a professional and a citizen.	PI 9.1: Approach local and global challenges in research, professional practice, and civic life with personal integrity and intellectual rigor.
	PI 9.2. Adhere to ethical standards in professional practice, research, and community engagement, demonstrating respect for diversity and a commitment to social responsibility.
PLO 10 (Lifelong Learning): Demonstrate entrepreneurial mindset and a lifelong learning attitude to adapt to an evolving professional landscape.	PI 10.1: Continuously engage in reflection-in-action to identify strengths and areas for improvement, goals and career development paths.
	PI 10.2: Identify opportunities to innovate within professional practices by applying entrepreneurial principles. (E.X.C.E.L.)

3. CURRICULUM STRUCTURE

3.1 Curriculum Composition

No.	Curriculum Components	Number of Credits	Credit Distribution (%/Total Credits)
I	VINCORE	35	29.2%
I.1	Enterprise and Innovation	4	3.3%
I.2	Leadership Mindset	2	1.7%
I.3	Civic Responsibility	2	1.7%
I.4	Ethics	2	1.7%
I.5	Community Service Learning	45 hours	
I.6	Working with the Brain	2	1.7%
I.7	Working with Technology	4	3.3%
I.8	Working with Others	4	3.3%
I.9	Working with the Self	90 hours	
I.10	Integrated Vietnam Studies	11	9.2%
I.11	Sustainability and Global Citizenship	2	1.7%
I.12	Creative Arts	2	1.7%
I.13	Global Experience	N/A	0.0%
II	PROFESSIONAL EDUCATION	73	60.8%
II.1	College Core Requirement	13	10.8%
II.2	Major Core Requirement	27	25.0%
II.3	Area of Focus	16	13.3%
II.4	Electives	17	11.7%
II.5	Minor	15	
III	PRACTICE / INTERNSHIP	6	5.0%
IV	GRADUATION CAPSTONE	6	5.0%
	TOTAL (WITHOUT MINOR)	120	100%
	TOTAL (WITH MINOR)	135	

Important Note:

- The Vincore Program has been issued along with the Decision No. 342a/2025/QĐ-VUNI dated June 20, 2025.
- Students have the option to obtain a minor in a different area of study offered by CAS or other colleges. **A minor needs to have at least 15 credits that are not already**

counted towards the major program. Information about the available minors is provided here: [LINK](#)

- International students are exempted from National Defense Education. However, they are still required to take ideology courses, including: History of the Communist Party, Ho Chi Minh Ideology, Scientific Socialism, Marxism-Leninism Political Economy, Marxism-Leninism Philosophy (In line with Decision No. 494/QĐ-TTg, issued on June 24, 2002, by the Prime Minister).

3.2 Courses and Credit Distribution by Courses

No.	Course code	Name of Courses	Total credits	Credit Hour Allocation		Pre-requisite (s)	Grading system (Letter Grade or Pass/Fail)
				Theory	Practice		
I	VINCORE		35	525	300		
I.1	Enterprise and Innovation		4	60			
	ENTR1022	Agile Innovation and Entrepreneurship	2	30		NA	P/F
	CAS1010/ IDEA1010/11/12/X	Big Ideas: X (The IDEA1010/11/12 series, titled 'Big Ideas (X)' will have its course code and title defined each semester, allowing the course content to align with the key themes and innovative design concepts)	2	30		NA	L
I.2	Leadership Mindset		2	30			
	LEAD1031	Leadership and Teambuilding Boot Camp	2	30		NA	P/F
I.3	Civic Responsibility		2	30	165		
	VCOR1030	National Defense Education	0		165	NA	P/F
	LAW1010	Introduction to Law	2	30		NA	L
I.4	Ethics		2	30			
	<i>Choose one out of the following courses</i>						
	CAS2010	Applied Ethics	2	30		NA	L
	MANA3021	Business Ethics	2	30		NA	L
	NURS3240	Healthcare Ethics	2	30		NA	L
	TECH1010	Technology Ethics	2	30		NA	L
I.5	Community Service Learning		0		45		
	COSL1010	Community Service Learning	0		45	NA	P/F
I.6	Working with the Brain		2	30			
	THINK1010	Critical and Creative Thinking	2	30		NA	L
I.7	Working with Technology		4	60			
1	CECS1040	Introduction to AI Literacy	2	30		NA	L

2	Choose one out of the following courses						
2.1	CECS1031	Computational Thinking	2	30		NA	L
2.2	CECS1050	Introduction to Data Literacy	2	30		NA	L
2.3	CHS1000	Introduction to Healthcare Informatics	2	30		NA	L
I.8	Working with Others		4	60			
1	ENGL1030	Academic and Professional Writing	2	30		NA	L
2	Choose one out of the following courses						
2.1	ENGL1040	Interpersonal and Multimedia Communication	2	30		NA	L
2.2	MANA1011	Introduction to Managing Skills	2	30		NA	L
2.3	CHS1020	Introduction to Healthcare Communication	2	30		NA	L
I.9	Working with the Self		0		90		
	VCOR1012A/B	OASIS (Orientation, Advising, Skills, Identity & Diversity and Spirit of Pay-it-Forward)	0		45	NA	P/F
	VCOR1021	Healthy Lifestyle 1	0		45	NA	P/F
	VCOR1022	Healthy Lifestyle 2					
I.10	Internship						
		Internship Refer to section III.2 for more details					
I.11	Integrated Vietnam Studies		11	165			
	HASS1010	Marxism-Leninism Philosophy (Philosophy, Science and Society)	3	45		NA	L
	HASS1020	Marxism-Leninism Political Economy (Global Political Economy)	2	30		NA	L
	HASS1030	Scientific Socialism (Politics and Social Change)	2	30		NA	L
	HASS1041/42	Ho Chi Minh Ideology (Vietnam: History and Cultures II)	2	30		NA	L
	HASS1050	History of the Communist Party (Vietnam: History and Cultures I)	2	30		NA	L
I.12	Sustainability and Global Citizenship		2	30			
	Choose one out of the following courses						
	HASS1070	Cross-Cultural Navigation	2	30		NA	L
	HASS1100	Introduction to International Relations	2	30		NA	L
I.13	Creative Arts		2	30			

	<i>Choose one out of the following courses</i>						
	ARTS1030	Arts Appreciation and Application	2	30		NA	L
	PERF1010	Artistic Performance and Application	2	30		NA	L
I.14	Global Experience						
		Students are encouraged to explore short-term study abroad exchange opportunities, facilitated by the Global Exchange Office, to broaden their global understanding and academic experience through partnerships with international institutions	Optional & Non-credit			NA	
II	PROFESSIONAL EDUCATION		73	1095			
II.1	College Core Requirement		13	195			
	CAS1030	First Year Seminar	2	30		NA	L
	STAT1011	Statistics for Social Sciences	3	45		NA	L
	CAS1020	Global Perspectives	2	30		NA	L
	CAS2020	Logic and Scientific Method	2	30		NA	L
	CAS3010	Global Development and Sustainability	2	30		NA	L
	CAS3020	Digital Arts and Sciences	2	30		NA	L
II.2	Major Core Requirement		27	405			
	INTR1010	Introduction to Economics	3	45		NA	L
	ECON1010	Introduction to Microeconomics	3	45		NA	L
	ECON2010	Basic Econometrics	3	45		NA	L
	ECON2020	Introduction to Macroeconomics	3	45		NA	L
	ECON2030	Quantitative Analysis and Forecasting	3	45		ECON2010,	L
	ECON3010	Intermediate Microeconomics	3	45		INTR1010, STAT1011 or ECON1010, STAT1011	L
	ECON3020	Machine Learning	3	45		INTR1010, STAT1011 or ECON1010, STAT1011	L
	ECON3040	Big Data in Economics	3	45		INTR1010, STAT1011 or	L

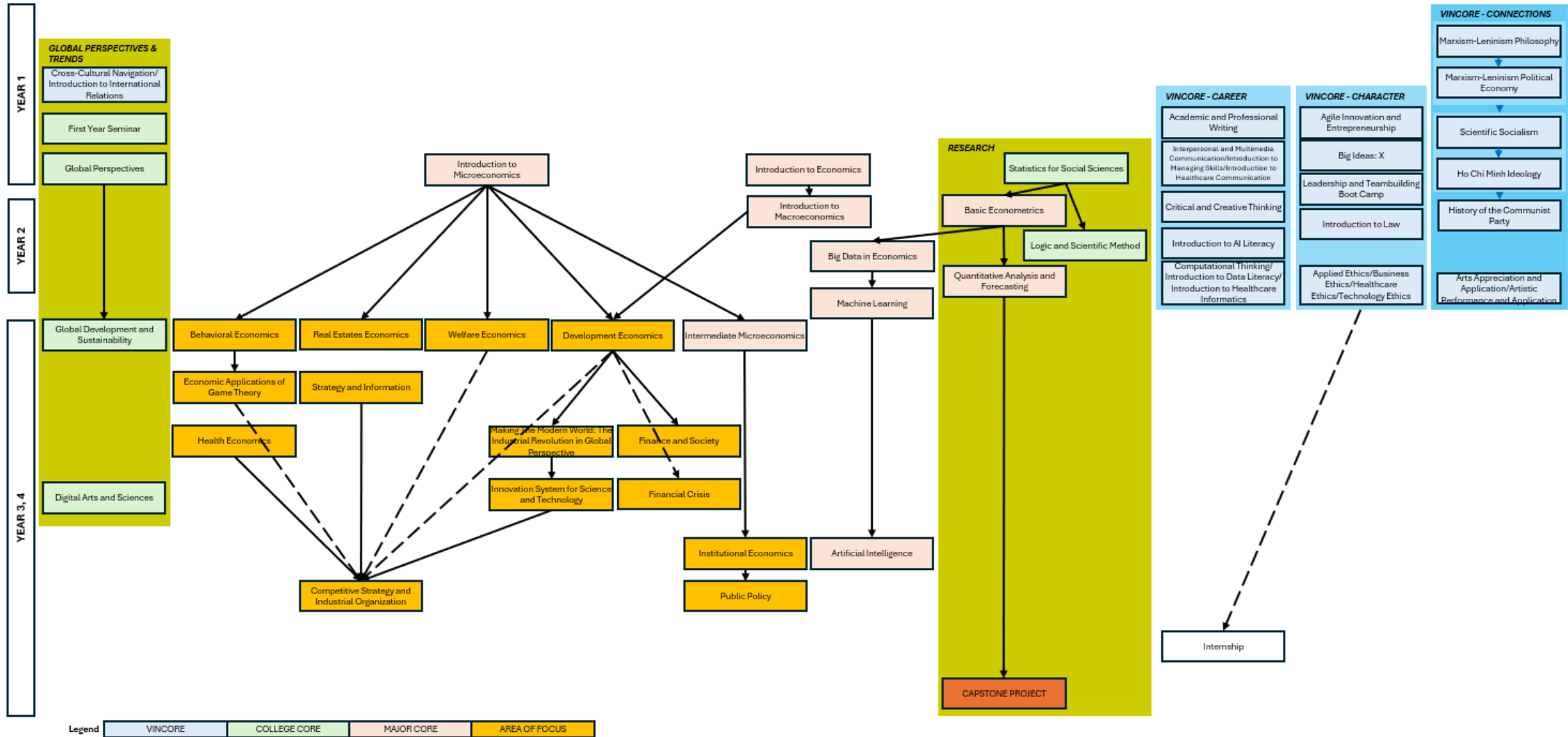
						ECON1010, STAT1011	
	ECON3120	Artificial Intelligence	3	45		INTR1010, STAT1011 or ECON1010, STAT1011	L
II.3	Area of Focus		16	240			
	Students can choose one of the areas of focus or choose a total of 16 credits from both areas of focus for a non-focus pathway. <i>(Courses are subject to availability at the time of registration)</i>						
	A. Innovation Economics Focus						
	ECON3060	Development Economics	3	45		ECON1010, ECON2020	L
	ECON3070	Strategy and Information	3	45		ECON1010, ECON2020	L
	ECON3090	Institutional Economics	3	45		ECON1010, ECON2020	L
	ECON3100	Innovation System for Science and Technology	3	45		ECON1010, ECON2020	L
	ECON3110	Public Policy	2	30		ECON1010, ECON2020	L
	ECON4010	Making The Modern World: The Industrial Revolution in Global Perspective	2	30		ECON1010, ECON2020	L
	ECON4040	Finance and Society	3	45		ECON1010, ECON2020	L
	ECON4050	Competitive Strategy and Industrial Organization	3	45		ECON1010, ECON2020	L
	ECON4060	Financial Crisis	2	30		ECON1010, ECON2020	L
	B. Enterprise, Market and Institutional Economics Focus						
	ECON3060	Development Economics	3	45		ECON1010, ECON2020	L
	ECON3050	Behavioral Economics	3	45		ECON1010	L
	ECON3030	Economic Applications of Game Theory	3	45		ECON1010, ECON2020	L
	ECON3090	Institutional Economics	3	45		ECON1010, ECON2020	L
	ECON3110	Public Policy	2	30		ECON1010, ECON2020	L
	ECON3070	Strategy and Information	3	45		ECON1010, ECON2020	L
	ECON4010	Making The Modern World: The Industrial	2	30		ECON1010, ECON2020	L

		Revolution in Global Perspective					
	ECON4030	Welfare Economics	3	45		ECON1010	L
	ECON4050	Competitive Strategy and Industrial Organization	3	45		ECON1010, ECON2020	L
	ECON4020	Real Estate Economics	3	45		ECON1010	L
	ECON4040	Finance and Society	3	45		ECON1010, ECON2020	L
	ECON4060	Financial Crisis	2	30		ECON1010, ECON2020	L
II.4	Electives		17	255			
		Students take 17 credits of free electives from within the program or from any other program (at VinUniversity or accredited partner institutions), of which at least 14 need to provide a letter grade.	17	255			
II.5	Minor		15				
III	PRACTICE / INTERNSHIP		6				
	Students to choose from the Internship Pool to accumulate 6 credits in total						
	ECON 4870	Internship Orientation			5		P/F
	ECON 4871	Internship 1	3			ECON 4870	
	ECON 4872	Internship 2	3			ECON 4870	
IV	GRADUATION CAPSTONE		6				
	ECON4890	Capstone Project	6				
	TOTAL (WITHOUT MINOR)		120				
	TOTAL (WITH MINOR)		135				

3.3 Curriculum Block

<p>I. VINCORE (35 credits)</p> <p>I.1. CHARACTER (10 credits)</p> <p>I.1.1. Enterprise and Innovation (4)</p> <ul style="list-style-type: none"> - Agile Innovation and Entrepreneurship (2) - Big Ideas: X (2) <p>I.1.2. Leadership Mindset (2)</p> <ul style="list-style-type: none"> - Leadership and Teambuilding Boot Camp (2) <p>I.1.3. Civic Responsibility (2)</p> <ul style="list-style-type: none"> - Introduction to Law (2) - National Defense Education (165 hr) <p>I.1.4. Ethics (2)</p> <ul style="list-style-type: none"> - Applied Ethics/Business Ethics/Healthcare Ethics/Technology Ethics (2) <p>I.1.5. Community Service Learning (45 hr)</p> <ul style="list-style-type: none"> - Community Service Learning (45 hr) <p>I.2. CAREER (10 credits)</p> <p>I.2.1. Working with the Brain (2)</p> <ul style="list-style-type: none"> - Critical and Creative Thinking (2) <p>I.2.2. Working with Technology (4)</p> <ul style="list-style-type: none"> - Introduction to AI Literacy (2) - Computational Thinking/Introduction to Data Literacy/Introduction to Healthcare Informatics (2) <p>I.2.3. Working with Others (4)</p> <ul style="list-style-type: none"> - Academic and Professional Writing (2) - Introduction to Healthcare Communication/Interpersonal and Multimedia Communication/Introduction to Managing Skills (2) <p>I.2.4. Working with the Self</p> <ul style="list-style-type: none"> - OASIS (Orientation, Advising, Skills, Identity & Diversity and Spirit of Pay-it-Forward) (45 hr) - Healthy Lifestyle (45 hr) <p>I.2.5. Internship (refer to III)</p> <ul style="list-style-type: none"> - Internship <p>I.3. CONNECTIONS (15 credits)</p> <p>I.3.1. Integrated Vietnam Studies (11)</p> <ul style="list-style-type: none"> - Marxism-Leninism Philosophy (3) - Marxism-Leninism Political Economy (2) - Scientific Socialism (2) - Ho Chi Minh Ideology (2) - History of the Communist Party (2) <p>I.3.2. Sustainability and Global Citizenship (2)</p> <ul style="list-style-type: none"> - Cross-Cultural Navigation/Introduction to International Relations (2) <p>I.3.3. Creative Arts (2)</p> <ul style="list-style-type: none"> - Arts Appreciation and Application/Artistic Performance and Application (2) <p>I.3.4. Global Experience (Optional & non-credit)</p>	<p>II.1. COLLEGE CORE (13 credits)</p> <ul style="list-style-type: none"> - First Year Seminar (2) - Statistics for Social Sciences (3) - Global Perspectives (2) - Logic and Scientific Method (2) - Global Development and Sustainability (2) - Digital Arts and Sciences (2) <p>II.2. MAJOR CORE (27 credits)</p> <ul style="list-style-type: none"> - Introduction to Economics (3) - Introduction to Microeconomics (3) - Basic Econometrics (3) - Introduction to Macroeconomics (3) - Quantitative Analysis and Forecasting (3) - Intermediate Microeconomics (3) - Machine Learning (3) - Big Data in Economics (3) - Artificial Intelligence (3) <p>II.3. AREA OF FOCUS (16 credits)</p> <p>Students can choose one focus (16 credits) or select courses with a total of 16 credits in both focuses:</p> <table border="1"> <tr> <td data-bbox="819 869 1153 1406"> <p>a. Innovation Economics Focus:</p> <ul style="list-style-type: none"> - Making The Modern World: The Industrial Revolution in Global Perspective (2) - Innovation System for Science and Technology (3) - Strategy and Information (3) - Competitive Strategy and Industrial Organization (3) - Development Economics (3) - Finance and Society (3) - Financial Crisis (2) - Institutional Economics (3) - Public Policy (2) </td><td data-bbox="1153 869 1489 1406"> <p>b. Enterprise, Market and Institutional Economics Focus:</p> <ul style="list-style-type: none"> - Development Economics (3) - Behavioral Economics (3) - Economic Applications of Game Theory (3) - Institutional Economics (3) - Public Policy (2) - Strategy and Information (3) - Making The Modern World: The Industrial Revolution in Global Perspective (2) - Welfare Economics (3) - Competitive Strategy and Industrial Organization (3) - Real Estate Economics (3) - Finance and Society (3) - Financial Crisis (2) </td><td data-bbox="1489 869 1671 1406"> <p>c. Non-Focus</p> <ul style="list-style-type: none"> - Any combination, subject to availability </td></tr> </table>	<p>a. Innovation Economics Focus:</p> <ul style="list-style-type: none"> - Making The Modern World: The Industrial Revolution in Global Perspective (2) - Innovation System for Science and Technology (3) - Strategy and Information (3) - Competitive Strategy and Industrial Organization (3) - Development Economics (3) - Finance and Society (3) - Financial Crisis (2) - Institutional Economics (3) - Public Policy (2) 	<p>b. Enterprise, Market and Institutional Economics Focus:</p> <ul style="list-style-type: none"> - Development Economics (3) - Behavioral Economics (3) - Economic Applications of Game Theory (3) - Institutional Economics (3) - Public Policy (2) - Strategy and Information (3) - Making The Modern World: The Industrial Revolution in Global Perspective (2) - Welfare Economics (3) - Competitive Strategy and Industrial Organization (3) - Real Estate Economics (3) - Finance and Society (3) - Financial Crisis (2) 	<p>c. Non-Focus</p> <ul style="list-style-type: none"> - Any combination, subject to availability 	<p>BACHELOR OF ARTS IN ECONOMICS (120 credits)</p> <p>II.4. FREE ELECTIVES/ CONCENTRATION (17 credits)</p> <p>Students take 17 credits of free electives, of which at least 14 need to provide a letter grade.</p> <p>II.5. MINOR (15* credits)</p> <p>Students have the option to obtain a minor in a different area of study offered by CAS or other colleges. A minor needs to have at least 15 credits that are not already counted towards the major program.</p> <p>III. PRACTICE/ INTERNSHIP (6 credits)</p> <p>Students to choose from the Internship Pool to accumulate 6 credits in total</p> <ul style="list-style-type: none"> - Internship (6) <p>IV. GRADUATION CAPSTONE (6 credits)</p> <ul style="list-style-type: none"> - Capstone Project (6)
<p>a. Innovation Economics Focus:</p> <ul style="list-style-type: none"> - Making The Modern World: The Industrial Revolution in Global Perspective (2) - Innovation System for Science and Technology (3) - Strategy and Information (3) - Competitive Strategy and Industrial Organization (3) - Development Economics (3) - Finance and Society (3) - Financial Crisis (2) - Institutional Economics (3) - Public Policy (2) 	<p>b. Enterprise, Market and Institutional Economics Focus:</p> <ul style="list-style-type: none"> - Development Economics (3) - Behavioral Economics (3) - Economic Applications of Game Theory (3) - Institutional Economics (3) - Public Policy (2) - Strategy and Information (3) - Making The Modern World: The Industrial Revolution in Global Perspective (2) - Welfare Economics (3) - Competitive Strategy and Industrial Organization (3) - Real Estate Economics (3) - Finance and Society (3) - Financial Crisis (2) 	<p>c. Non-Focus</p> <ul style="list-style-type: none"> - Any combination, subject to availability 			

3.4 Curriculum Learning Roadmap



3.5 Standard Study Plan

Year 1 – Semester 1:

No	Course Code	Course name (English)	Course name (Vietnamese)	Credits
1	HASS1010	Marxism-Leninism Philosophy (Philosophy, Science and Society)	Triết học Mác-Lênin (Triết học, Khoa học và Xã hội)	3
2	HASS1020	Marxism-Leninism Political Economy (Global Potitical Economy)	Kinh tế Chính trị Mác-Lênin (Kinh tế chính trị toàn cầu)	2
3	ENGL1030	Academic and Professional Writing	Kỹ năng viết học thuật	2
4	VCOR1021	Healthy Lifestyle 1	Lối sống Khoẻ mạnh 1	22.5 hours
5	ENTR1022	Agile Innovation and Entrepreneurship	Khởi nghiệp và Đổi mới sáng tạo	2
6	VCOR1012A/B	OASIS (Orientation, Advising, Skills, Identity & Diversity and Spirit of Pay-it- Forward)	OASIS (Định hướng, Tư vấn, Kỹ năng, Bản sắc & Đa dạng, Tinh thần cho đi)	45 hours
7	COSL1010	Community Service Learning	Học tập qua phục vụ cộng đồng	45 hours
8	IDEA1010/11/12	Big Ideas	Ý tưởng lớn	2
9	CAS1030	First Year Seminar	Chuyên đề năm nhất	2
10		Elective	Môn học tự chọn	3
Total				16

Year 1 – Semester 2:

No	Course Code	Course name (English)	Course name (Vietnamese)	Credits
1	LEAD1031	Leadership and Teambuilding Boot Camp	Trại huấn luyện kỹ năng lãnh đạo và làm việc nhóm	2

2	HASS1070/ HASS1100	Cross Cultural Navigation/Introduction to International Relations	Định hướng liên văn hoá/ Nhập Môn Quan hệ quốc tế	2
3	HASS1030	Scientific Socialism	Chủ Nghĩa Xã hội khoa học (Chính trị và biến đổi xã hội)	2
4	HASS1041/42	Ho Chi Minh Ideology	Tư tưởng Hồ Chí Minh (Lịch sử và Văn hóa Việt Nam II)	2
5	VCOR1022	Healthy Lifestyle 2	Lối sống khỏe mạnh 2	22.5 hours
6	VCOR1012A/B	OASIS (Orientation, Advising, Skills, Identity & Diversity and Spirit of Pay-it- Forward)	OASIS (Định hướng, Tư vấn, Kỹ năng, Bản sắc & Đa dạng, Tinh thần cho đi)	0
7	CAS1020	Global Perspectives	Quan điểm toàn cầu	2
8	INTR1010	Introduction to Economics	Kinh tế học đại cương	3
9	STAT1011	Statistics for Social Sciences	Thống kê trong khoa học xã hội	3
10	VCOR1030	National Defense Education	Giáo dục Quốc phòng và An ninh	165 hours
Total				16

Year 2 – Semester 1:

No	Course Code	Course name (English)	Course name (Vietnamese)	Credits
1	THINK1010	Critical and Creative Thinking	Tư duy sáng tạo và Phân biện	2
2	HASS1050	History of the Communist Party	Lịch sử Đảng Cộng Sản Việt Nam (Lịch sử và Văn hóa Việt Nam I)	2
3	ARTS1030\ PERF1010	Arts Appreciation and Application / Artistic Performance and Application	Thưởng thức và thực hành nghệ thuật/ Biểu diễn và Thực hành Nghệ thuật	2

4	CAS2010/MANA3021/ NURS3240/TECH1010	Applied Ethics/Business Ethics/Healthcare Ethics/Technology Ethics	Đạo Đức trong thực tiễn/ Đạo đức trong kinh doanh/ Đạo đức trong chăm sóc sức khỏe/ Đạo đức trong công nghệ	2
5	CECS1031/CECS1050/ CHS1000	Computational Thinking/Introduction to Data Literacy/Introduction to Healthcare Informatics	Tư duy Máy tính/ Nhập môn Hiểu biết về dữ liệu/ Nhập môn về tin học trong y tế	2
6	ECON1010	Introduction to Microeconomics	Nhập môn Kinh tế vi mô	3
7	ECON2010	Basic Econometrics	Kinh tế lượng cơ bản	3
Total				16

Year 2 – Semester 2:

No	Course Code	Course name (English)	Course name (Vietnamese)	Credits
1	CECS1040	Introduction to AI Literacy	Nhập Môn hiểu biết về AI	2
2	COSL1010	Community Service Learning	Học tập qua phục vụ cộng đồng	45 hours
3	LAW1010	Introduction to Law	Pháp luật đại cương	2
4	CAS2020	Logic and Scientific Method	Tư duy logic và Phương pháp luận khoa học	2
5	ECON2020	Introduction to Macroeconomics	Nhập môn Kinh tế vĩ mô	3
6	ECON2030	Quantitative Analysis and Forecasting	Phân tích Định lượng và Dự báo	3
7	ECON3010	Intermediate Microeconomics	Kinh tế Vi mô trung cấp	3
Total				15

Year 3 – Semester 1:

No	Course Code	Course name (English)	Course name (Vietnamese)	Credits
1	CAS3010	Global Development and Sustainability	Phát triển toàn cầu và Sự bền vững	2

2	CHS1020/ENGL1040/ MANA1011	Introduction to Healthcare Communication/Interpersonal and Multimedia Communication/Introduction to Managing Skills	Nhập môn Giao tiếp trong chăm sóc sức khỏe /Giao tiếp Cá nhân và Đa phương tiện truyền thông/ Nhập môn kỹ năng quản lý	2
3	ECON3020	Machine Learning	Học máy	3
4	ECON3040	Big Data in Economics	Dữ liệu lớn trong kinh tế học	3
5	ECON3120	Artificial Intelligence	Trí tuệ nhân tạo	3
6		Elective	Môn học tự chọn	3
Total				16

Year 3 – Semester 2:

No	Course Code	Course name (English)	Course name (Vietnamese)	Credits
1	CAS3020	Digital Arts and Sciences	Nghệ thuật và khoa học số	2
2		Major elective	Môn chuyên ngành tự chọn	2
3		Major elective	Môn chuyên ngành tự chọn	2
4		Major elective	Môn chuyên ngành tự chọn	3
5		Elective	Môn học tự chọn	2
6		Elective	Môn học tự chọn	3
Total				14

Year 4 – Semester 1:

No	Course Code	Course name (English)	Course name (Vietnamese)	Credits
1		Major elective	Môn chuyên ngành tự chọn	3
2		Major elective	Môn chuyên ngành tự chọn	3

3		Major elective	Môn chuyên ngành tự chọn	3
4		Elective	Môn học tự chọn	3
5		Elective	Môn học tự chọn	3
Total				15

Year 4 – Semester 2:

No	Course Code	Course name (English)	Course name (Vietnamese)	Credits
1	ECON 4870/ ECON 4871/ ECON 4872	Internship	Thực tập	6
2	ECON 4890	Graduation Capstone	Đồ án tốt nghiệp	6
Total				12

3.6 Course Descriptions

3.6.1 VINCORE Courses

ENTR1022 Agile Innovation and Entrepreneurship

Credit: 2

On successful completion of this course, students will be able to:

Explain how an entrepreneurial mindset supports and accelerates innovation and growth in the contexts of businesses, industries, and countries.

Evaluate the multifaceted nature of entrepreneurship in Vietnam and internationally, and how it impacts the economy, society, and environment. Have access to insights on VinGroup's governance principles (the 6 Hóá).

Recommend strategies to evaluate the entrepreneurial mindset, values, and behaviors, and to further develop the entrepreneurial mindset, both individually and organizationally.

Grow your own entrepreneurial mindset and innovation-related skills, including identifying and evaluating opportunities, taking calculated risks, solving problems creatively, communicating effectively, and influencing stakeholder groups.

Demonstrate the ability to work productively in teams to collaboratively explore opportunities, generate ideas, and find and communicate solutions to a predefined challenge during the course hackathon.

IDEA1010/11/12 Series: Big Ideas (X)

Credit: 2

On successful completion of this course, students will be able to:

Describe and explain a “big idea”, which may be a new solution to a problem, a disrupting technology, or an innovative method or way of doing things

Identify the implications of a big idea for everyday life or a professional setting

Develop a strategy for using a big idea to improve an existing approach or create a new application

Evaluate the application of a big idea, including an assessment of its positive impacts, negative impacts, and mitigating strategies for the theme of the year

LEAD1031 Leadership and Teambuilding Bootcamp

Credit: 2

On successful completion of this course, students will be able to:

Define foundational concepts of leadership traits, leadership styles, values, and trends, and their applications to real-life situations, especially in a turbulent world.

Describe and evaluate the differences and similarities between management and leadership, and their application in an organizational setting.

Evaluate the multifaceted nature of leadership in Vietnam and internationally, and their impact on work environments, particularly in a VUCA context. Have access to insights on Vingroup's mission, vision, and core values.

Develop your own leadership mindset by setting a vision, developing self-awareness, understanding others' perspectives, understanding situational contexts, communicating effectively, and making informed decisions. setting a vision, accepting accountability, understanding self and others' limits, inspiring and motivating others, and creating the collaborative conditions for success

Apply basic leadership values and skills through action-based learning, building self, interpersonal, and team leadership during the leadership bootcamp.

VCOR1030 National Defense Education

Credit: 165 Hours

On successful completion of this course, students will be able to:

Understand and articulate knowledge of the National Defense and Security policies of the Communist Party of Vietnam.

Understand basic concepts of national defense and security work.

Understand and practice the fundamental rules and disciplinary regulations in military organization.

Practice the fundamental techniques and tactics of infantry combat

LAW1010 Introduction to Law

Credit: 2

On successful completion of this course, students will be able to:

Explain the history, contemporary nature, and purpose of the Vietnamese legal system, including its key institutions, doctrines, and principles.

Describe and evaluate key differences and similarities between legal system management in Vietnam and internationally.

Understand the mechanisms of legal duty, justification of punishment, and the roles of courts and juries.

Apply fundamental legal rules and principles in a wide range of selected areas of the law, demonstrating critical thinking and ethical considerations.

Develop a mindset of compliance and appreciate the importance of adhering to legal standards in professional and personal context

CAS2010 Applied Ethics

Credit: 2

On successful completion of this course, students will be able to:

Identify and explain a range of ethical concerns across different professional and real-world domains of human interaction.

Apply ethical theories and offer rational justification to moral dilemmas.

Understand the moral stakeholders involved and the ethical obligations required for certain professional standards/codes, as well as the rationale behind them.

Apply ethical theories and offer rational justification to moral dilemmas where no professional standards/codes are established

MANA3021 Business Ethics

Credit: 2

On successful completion of this course, students will be able to:

Understand and explain the relevance of values applied to business, such as integrity, accountability, transparency, respect for stakeholders, corporate social responsibility (CSR), fairness, and compliance)

Identify business practices that produce unethical behavior or harm to the individual, society, or environment

Apply relevant ethical theories to moral dilemmas in the context of business

Evaluate different responses to ethical practice in business and justify an opinion based on ethical theory

NURS3240 Healthcare Ethics

Credit: 2

On successful completion of this course, students will be able to:

Understand and explain the relevance of principles and values applied to healthcare, medical research, and health policy, covering topics such as respect for patients, beneficence and non-maleficence, justice, and honesty and transparency)

Identify medical practices that produce unethical behavior or harm to patients, the profession, society, or the environment

Apply relevant ethical theories to moral dilemmas in the context of medical treatment

Evaluate different responses to ethical practice in medicine and justify an opinion based on ethical theory

Understand the influence of religious ethics in patient treatment and decision-making

TECH1010 Technology Ethics

Credit: 2

On successful completion of this course, students will be able to:

Understand and explain the principles and values applied to technology, including privacy and data protection, algorithmic fairness and bias, digital inclusion, accountability and transparency, sustainability, and ethical AI and machine learning)

Identify uses of technology that produce unethical behavior or harm to users, society, or the environment

Apply relevant ethical theories to moral dilemmas involving technology

Evaluate different responses to ethical practice in technologies and justify an opinion based on ethical theory

COSL1010 Community Service Learning

Credit: 45 Hours

On successful completion of this course, students will be able to:

Define and understand the essential components of service learning, including benefits, impact, and key attributes.

Critically reflect on social issues and UNESCO's sustainable development goals (SDGs) with

reference to a planned service project

Plan and implement a service project in accordance with local laws and regulations

Reflect on the outcomes of that service project and how it could have been improved

Develop sensitivity and empathy to local community members

THINK1010 Critical and Creative Thinking

Credit: 2

On successful completion of this course, students will be able to:
Appreciate the purpose and importance of creative and critical thinking.
Identify, develop, and criticize claims and arguments in accordance with principles of logical reasoning and scientific evidence
Apply creative and critical thinking with supporting tools and techniques for problem-solving.
Embed creative and critical thinking in workplace idea generation.
Build foundations for enhancing individual and team effectiveness.

CECS1040 Introduction to AI Literacy

Credit: 2

On successful completion of this course, students will be able to:
Understand basic AI principles, including machine learning and neural networks.
Use AI tools like ChatGPT for work and study tasks.
Recognize ethical implications, such as data privacy and algorithmic bias.
Apply AI to improve efficiency and innovation in academic and professional settings.
Design and evaluate user interfaces for better human-AI interaction

CECS1031 Computational Thinking

Credit: 2

On successful completion of this course, students will be able to:
Identify and analyze problems from life and business in order to determine computational solutions.
Break down problems into logical steps and data requirements.
Use basic data structures and algorithms for problem-solving.
Design simple algorithms and computational models.
Implement solutions using basic programming skills.
Evaluate and optimize computational solutions.

CECS1050 Introduction to Data Literacy

Credit: 2

On successful completion of this course, students will be able to:
Read, understand, create, and communicate data as information.
Analyze and visualize data using tools like Excel and Python.
Understand the importance of data in business strategy and apply data-driven insights for decision-making.
Develop skills to improve data collection designs and ensure data quality.
Utilize statistical methods and probability to interpret, present and effectively tell stories about data.

CHS1000 Introduction to Health Informatics

Credit: 2

Describe the principles and challenges associated with combining information sciences, data, and the healthcare domain

Effectively utilize Zotero as the software for publishing and managing bibliographies, citations and references for scientific research and writing

Describe the importance of data standards and interoperability in the context of healthcare and health-related fields

Describe the components of an electronic health/medical record system, including interoperability and health information exchanges

Describe the importance of data security and privacy in the context of healthcare and health-related fields

ENGL1030 Academic and Professional Writing

Credit: 2

On successful completion of this unit, students will be able to:

Identify and explain core attitudes, values, and practices of academic culture and how academic writing reflects these.

Reflect critically on the differences between academic and opinion writing and apply this understanding in the composition of academic essays, including referencing, quoting, and paraphrasing.

Evaluate the differences between academic and professional writing in terms of style, purpose, target audience, and techniques.

Develop your clear, concise, and well-structured writing skills, focusing on the most critical documents and situations in academic and professional work such as academic essays, newspaper articles, business reports, proposals, speeches...

Use AI to develop, enhance, and revise writing in both academic and professional contexts.

ENGL1040 Interpersonal and Multimedia Communication

Credit: 2

On successful completion of this course, students will be able to:

Identify and explain the fundamental concepts, scope, and diversity of oral and visual communication.

Identify communication expectations based on an understanding of different professional audiences and contexts and apply this knowledge in delivering communication.

Demonstrate responsible, ethical, and respectful attitudes as the field undergoes disruptive changes fueled by rapid technological advancements.

Develop your own oral communication skills in key situations, from speeches to conversation, discussion, giving feedback.

Grow your skills in developing digital content for multimedia, including presentations, pitches, blog posts, viral videos, podcasts, and basic media management.

MANA1011 Introduction to Managing Skills

Credit: 2

On successful completion of the course, students will be able to:

Apply the SMART technique to define specific, measurable, achievable, relevant, and time-bound goals, ensuring clarity and focus on their objectives.

Develop skills to effectively organize tasks and prioritize them based on importance and urgency, facilitating efficient and systematic progress towards achieving objectives.

Understand how to assign tasks based on team members' individual strengths, skills, and expertise, ensuring optimal use of resources, and enhancing team performance. Learn to create and manage project schedules, monitor progress, and employ motivational techniques to keep team members engaged and productive, overcoming challenges and maintaining momentum.

Acquire the ability to give professional, accurate, and timely feedback, fostering a positive energy and environment within the team.

CHS1020 Introduction to Healthcare Communication

Credit: 2

Demonstrate active listening and verbal and non-verbal communication techniques to enhance professional interactions

Establish trust and rapport demonstrating empathy, respect and professionalism

Identify potential communication challenges such as cultural differences, language and physical barriers and emotional distress

Communicate effectively and be able to receive and give feedback to team members

Reflect on the importance of confidentiality, sensitivity, and respect in all forms of healthcare communication

VCOR1012A/B - OASIS

Credit: 45 Hours

On successful completion of this course, students will be able to:

Cultivate self-leadership, enhancing self-confidence, self-esteem, self determination, and self- control.

Self- acquire and apply college readiness skills, life-long learning, effectively adapting to academic, social, and personal challenges of university life

Self- develop essential career skills, preparing for personal and professional success.

Embrace community involvement by actively participating in community service, demonstrating a commitment to positive societal impact and a pay-it-forward spirit.

Regularly reflect on personal growth and practice self-leadership throughout your university life, from the initial enrollment CV to the Individual Development Plan (IDP) and the pre- graduation CV, ensuring ongoing development and readiness for life after graduation.

VCOR1021/22 Healthy Lifestyle 1,2

Credit: 45 Hours

On successful completion of this course, students will be able to:

Understand the important principles of a healthy lifestyle, including balanced nutrition, regular physical activity, and mental well-being.

Understand your own health, develop your own personal health strategies, including techniques for managing stress effectively and maintaining a balanced life.

Engage in self-discipline for nutrition, exercise, and rest, and actively participate in various physical and mental well-being clubs at the university.
Recognize the impact of lifestyle choices on long-term health and well-being, and make informed decisions to enhance your quality of life.
Be motivated to promote well-being within communities through various means such as research, awareness campaigns, and participation in health clubs.

HASS1010 Marxism Leninism Philosophy (Philosophy, Science and Society)

Credit: 3

On successful completion of this course, students will be able to:

Understand the basic philosophical foundations of Marxism-Leninism, including dialectical materialism and historical materialism

Explain its significance in the development of Vietnam's state ideology and relevance to other

areas of society including history, politics and economics

Know that Vietnamese philosophy features elements of syncretism and be able to describe those elements (e.g., Marxism-Leninism, Confucianism, Buddhism, Daoism, etc.)

Describe, evaluate and compare different answers to foundational philosophical questions such

as "what exists?", "what is knowledge?", and "what is right and wrong?"

Understand and assess different approaches to the nature of science and scientific progress

HASS1020 Marxism-Leninism Political Economy (Global Political Economy)

Credit: 2

On successful completion of this course, students will be able to:

Demonstrate an understanding of the complexity of how the world is interconnected through the political economy.

Develop an informed understanding of conceptual terms and theoretical approaches used in understanding the global economy.

Understand the transformation of Vietnam in the context of the global political economy.

Cultivate a critical-minded awareness of major trends in the global political economy.

Acquire an informed understanding of the rise of China and India and the resulting impacts on Vietnam, ASEAN, and the world.

HASS1030 Scientific Socialism (Politics and Social Change)

Credit: 2

On successful completion of this course, students will be able to:

Describe and explain the concepts of politics and social change of Vietnam and around the region, and acquire some lexicon of the subject;

Understand how politics and political systems are key to socio-economic developments, including but not limited to the Marxist-Leninist views;
Understand the ways politics affects economic management, and help determine national success
Compare Vietnam's national development with national efforts elsewhere in Asia;

HASS1041/42 Ho Chi Minh Ideology (Vietnam History and Culture II)

Credit: 2

On successful completion of this course, students will be able to:

Know the major events, persons, and historical conditions the led to the creation and development of Ho Chi Minh Ideology and engage Ho Chi Minh Ideology as both a historical and living body of thought.

Consider the ongoing transformation of Ho Chi Minh thought and its significance in history and for Vietnam's future.

Critically review historical artifacts, including textual documents, art, literature, archeology, and accounts of informants and grasp the historical factors and precedents that relate to contemporary issues

Gain ability to apply historical and cultural knowledge to understanding and analyzing contemporary problems

Present historical evidence-based arguments and conduct probing discussions about challenging historical subjects

Explore multiple perspectives about the past, especially the past as understood from the vantage of former historical actors.

HASS1050 History of the Communist Party (Vietnam History and Culture I)

Credit: 2

On successful completion of this course, students will be able to:

Know the major events, persons, and historical conditions the led to the creation and development of the Vietnamese Communist Party

Critically review historical artifacts, including textual documents, art, literature, archeology, and accounts of informants.

Grasp the historical factors and precedents that relate to contemporary issues and gain the ability to apply historical and cultural knowledge to understanding and analyzing contemporary problems

Present historical evidence-based arguments

Explore multiple perspectives about the past, especially the past as understood from the vantage of former historical actors.

HASS1070 Cross-Cultural Navigation

Credit: 2

On successful completion of this course, students will be able to:

Understand the ways in which individual identities, values, and perceptions and biases are shaped by cultures and different forms of life

Know the theories and practice related to the impact of culture in our daily ecologies in local and global contexts
Identify and understand the intersection of one's own and others' cultural identities
Apply knowledge of practice, theory, and personal reflection of different cultures to a particular issue that requires collaboration or cooperation between individuals or groups from different cultural backgrounds

HASS1100 Introduction to International Relations

Credit: 2

On successful completion of this course, students will be able to:
Know the main actors, structures, and processes of international relations
Understand the basic theoretical principles of international relations and compare the competing underlying frameworks on human and social nature
Identify the respective objectives of international organizations in international politics, collaboration, and cooperation
Explore a case study, problem-solving scenario or dilemma involving international relations and devise a strategy/solution supported by theory and solid argumentation
Critically assess alternative strategies and points of view on complex scenarios requiring international relations

ARTS1030 Art Appreciation and Application

Credit: 2

On successful completion of this course, students will be able to:
Demonstrate an understanding and appreciation of arts and visual arts in general, including their function, and historical, religious, cultural, social, and environmental contexts and relevance;
Understand and define the basic principles of arts, visual arts, and design; explain and analyze a work of art from an informed and objective viewpoint, its physical attributes and formal construction;
Identify how art works are created and processed;
Make a reference to the significance and application of the arts in students' own field of studies and interests;
Analyze Vietnam arts and situate Vietnam arts in the global context.

PERF1010 Artistic Performance and Application

Credits: 2

On successful completion of this course, students will be able to:
Show improved skill in their chosen artistic field (e.g., music, dance, theatre, visual arts) and express their creativity and individuality through performance(s).
Evaluate and discuss different forms of artistic performance, identifying key elements and techniques, and write reflective assessments on their personal artistic development.

Work well with peers to create and perform artistic pieces, and effectively give and receive constructive feedback.

Clearly communicate the artistic vision and choices behind their performances both verbally and in writing (if required) and develop their skills in presenting artistic work to an audience, including stage presence and audience engagement. Explore and appreciate a variety of artistic traditions from around the world, with a special focus on Vietnamese culture, and place their own artistic work in a wider cultural and historical context.

Plan, organize, and complete an artistic performance project from start to finish, demonstrating good time management and organizational skills.

Understand and apply ethical considerations in artistic performance, including respecting intellectual property and cultural sensitivities, and behave professionally during rehearsals, performances, and collaborative projects.

3.6.2 BAE Core Courses

CAS1030: First Year Seminar

Credit: 2

Communicate effectively in both written and oral forms, using the conventions and rhetorical strategies commonly employed in the humanities and social sciences.

Collaborate productively in group settings, demonstrating the interpersonal and analytical skills essential for academic inquiry

Apply foundational research methods, including locating, evaluating, and integrating scholarly sources relevant to topics in the humanities and social sciences.

Construct well-reasoned arguments, drawing on evidence and theoretical perspectives

Analyze and interpret texts, data, and cultural artifacts, demonstrating critical thinking skills and an understanding of diverse approaches used in the humanities and social sciences.

Reflect on their own academic development, identifying strengths and areas for improvement in relation to the skills and habits of mind valued in higher education

STAT1011 – Statistics for Social Sciences

Credit: 3

This course introduces the fundamental concepts and techniques of statistical analysis. The focus is on developing skills in descriptive and inferential statistics, including data collection and analysis, probability theory, hypothesis testing, and regression analysis. Students will also learn how to use statistical software to perform data analysis.

CAS1020 – Global Perspectives

Credit: 2

This course exposes and engages students with a variety of different global perspectives on important issues of the day. Each week the seminar will be led by a

different faculty member or guest speaker who will choose a topic, assign pre-class reading, and organize the class activities. Potential contemporary issues include Chat GPT and AI, the aging crisis, immigration, globalization, the new space race, Industry 4.0, etc.

CAS2020 – Logic and Scientific Method

Credit: 2

This course introduces students to more advanced topics in reasoning, logic, and the topics of evidence and testing in science. In deductive reasoning students advance in topics in critical thinking to include first-order predicate calculus and modal logic. In statistical reasoning students learn the axioms of probability theory, Bayesian confirmation theory and issues in the confirmation of scientific theories including advanced topics from the Hypothetical-Deductive Method and Falsificationism.

CAS3010 – Global Development and Sustainability

Credit: 2

This course introduces and elaborates on the concept of development and the role of sustainability. The course would engage the ideas of development from an interdisciplinary and multi-dimensional perspective. The course content aims to answer questions such as: what is development? How does development happen? What contributes to development? Why do the development stories differ at the country, regional, and global levels? Besides the theoretical explanation of development, practical insights would be provided via real-world exposure, case studies, contemporary reading material, and capstone projects. The course would focus on the interaction and interrelationship between environment and development by exploring the role of sustainability.

CAS3020 – Digital Arts and Sciences

Credit: 2

As more information becomes digitized, researchers can use powerful AI tools to better analyze that data and visualize it for communication. This course introduces students to the main advances in digital humanities, how to code for basic research and scholarship with an eye to potential application in the areas: communications, psychology and economics.

INTR1010 – Introduction to Economics

Credits: 3

The Introduction to Economics course provides an overview of economic science, including microeconomics and macroeconomics. The Microeconomics part examines the following issues: the fundamental principles of economics; supply and demand analysis; production, cost and industry structure. The Macroeconomics part examines the Macroeconomic perspective as well as basic concepts such as Economic growth, Unemployment, and Inflation. Moreover, the role of the government in the economy is also discussed. The duration of the course is 15 weeks, students will have 3-hour weekly class during the course.

ECON1010 – Introduction to Microeconomics

Credits: 3

This course explores the fundamentals of microeconomics. It analyzes individual economic agents, firms, and markets, focusing on supply and demand, consumer behavior, production, costs, market structures, and government intervention. Through theoretical concepts and real-world examples, it develops critical thinking skills applicable to economic decision-making. Ideal for business majors and those seeking a foundational understanding of microeconomic principles.

ECON2010 – Basic Econometrics

Credits: 3

The Basic Econometrics course provides students with an essential introduction to the application of statistical methods in economics. This undergraduate-level offering focuses on equipping students with the fundamental tools necessary for empirical analysis and hypothesis testing. Through theoretical concepts and hands-on applications, participants will learn to model and analyze economic relationships using real-world data.

Topics covered include regression analysis, hypothesis testing, and the interpretation of results, enabling students to draw meaningful conclusions from empirical studies. The course emphasizes practical skills in using statistical software for econometric analysis.

Ideal for students pursuing economics, finance, or related fields, Basic Econometrics serves as a foundational step towards understanding how statistical techniques can be applied to analyze economic phenomena. The course aims to empower students with the skills needed to critically evaluate and contribute to empirical research in economics.

ECON2020 – Introduction to Macroeconomics

Credits: 3

This course embarks on an exploration of macroeconomics. It focuses on the study of aggregate economic phenomena, including national income, unemployment, inflation, and economic growth. It analyzes the role of government policy, monetary systems, and international trade in shaping the overall economic landscape. Through a mix of theory and real-world applications, it develops a solid understanding of the macroeconomic forces that influence societies and impact decision-making at a national level. Ideal for students interested in economics, business, or anyone seeking a foundational grasp of macroeconomic principles.

ECON2030 – Quantitative Analysis and Forecasting

Credits: 3

The Quantitative Analysis and Forecasting course offers students a comprehensive exploration of statistical methods tailored for time series analysis. In this undergraduate-level offering, participants will learn about modeling and forecasting economic trends, financial data, and various time-dependent phenomena.

The curriculum covers essential topics such as time series decomposition, autoregressive integrated moving average (ARIMA) models, and advanced forecasting techniques. Through a combination of theoretical concepts and practical applications using statistical software, students will develop proficiency in analyzing time series data and making informed predictions.

Ideal for students with an interest in economics, finance, or data science, this course equips participants with the skills necessary to interpret and forecast trends, enhancing their ability to contribute valuable insights in various professional domains.

ECON3010 – Intermediate Microeconomics

Credits: 3

The Intermediate Microeconomics course is designed for students who have a foundational understanding of microeconomic principles and are ready to explore more advanced concepts. Building upon the basics, this undergraduate-level course delves deeper into the analysis of individual economic agents, firms, and markets. The course emphasizes the application of theoretical frameworks to real-world scenarios, honing analytical skills crucial for assessing market dynamics and policy implications. Course content includes core topics of consumption, production, and decision-making by firms, both with and without market power, under perfect and imperfect information, as well as the analysis of market failure due to externalities and public goods.

Through a combination of lectures, case studies, and interactive discussions, students will develop a more sophisticated understanding of microeconomic concepts and their implications. This course is ideal for economics majors or those pursuing fields that require a deep understanding of microeconomic theory and its applications in diverse settings.

ECON3020 – Machine Learning

Credits: 3

In this course, students will learn popular machine learning algorithms, principal component analysis, and regularization by building a movie recommendation system. The student will learn about training data, and how to use a set of data to discover potentially predictive relationships. In building the movie recommendation system, the student will learn how to train algorithms using training data so you can predict the outcome for future datasets. The student will also learn about overtraining and techniques to avoid it such as cross-validation. All of these skills are fundamental to machine learning.

ECON3040 – Big Data in Economics

Credits: 3

This course illustrates the transformative power of "big data" in comprehending and tackling critical societal and economic challenges. It serves as an accessible introduction to cutting-edge research and practical applications in economics and social science, tailored for students without prior experience in Economics or Statistics. Whether you're new to Economics or have a more advanced background, this course covers diverse topics such as equality of opportunity, education, innovation, entrepreneurship, healthcare, climate change, and crime. In addition to exploring these themes, the course provides a foundational understanding of fundamental data science methods, including regression, causal inference, and machine learning.

ECON3120 – Artificial Intelligence

Credits: 3

The Artificial Intelligence course introduces students to the basic knowledge representation, problem solving, and learning methods of artificial intelligence. Upon completion of the course, students should be able to develop intelligent systems by assembling solutions to concrete computational problems; understand the role of knowledge representation, problem solving, and learning in intelligent-system engineering; and appreciate the role of problem solving, vision, and language in understanding human intelligence from a computational perspective.

3.6.3 BAE Major Electives

ECON3060 – Development Economics

Credits: 3

The Development Economics course explores the foundations of policy making in developing countries. The goal is to spell out various policy options and to quantify the trade-offs between them. We will study the different facets of human development: education, health, gender, the family, land relations, risk, informal and formal norms and institutions. This is an empirical class. For each topic, we will study several concrete examples chosen from around the world. While studying each of these topics, we will ask: What determines the decisions of poor households in developing countries? What constraints are they subject to? Is there a scope for policy (by government, international organizations, or non-governmental organizations (NGOs))? What policies have been tried out? Have they been successful?

ECON3100 – Innovation System for Science and Technology

Credits: 3

This course focuses on science and technology policy—it will examine the science and technology innovation system, including case studies on energy, computing, advanced manufacturing, and health sectors, with an emphasis on public policy and

the federal government's role in that system. It will review the foundations of economic growth theory, innovation systems theory and innovation organization, and the basic approaches to science and technology policy, building toward a sophisticated understanding of these areas. The class will review a theory of direct and indirect economic factors in the innovation system, study the varied models for how federal science and technology mission agencies are organized, and examine the growth of public-private partnership models as a way for science mission agencies to pursue mission agendas.

ECON4010 – Making the Modern World: The Industrial Revolution in Global Perspective

Credits: 2

This course is a global survey of the great transformation in history known as the "Industrial Revolution." Topics include origins of mechanized production, the factory system, steam propulsion, electrification, mass communications, mass production and automation. Emphasis on the transfer of technology and its many adaptations around the world. Countries treated include Great Britain, France, Germany, United States, Sweden, Russia, Japan, China, and India.

ECON4030 – Welfare Economics

Credits: 3

The purpose of this course is to discuss how an economic outcome can be evaluated from society's point of view. Society, in the context, consists of individuals with different tastes, endowments and expectations. It will be assumed that the society in question takes into account the choices of all its members in making decisions. This problem is particularly important for evaluating economic policies.

ECON4050 – Competitive Strategy and Industrial Organization

Credits: 3

The Competitive Strategy and Industrial Organization covers the foundations of the field of industrial organization, including the theory of the firm, models of competition, market structure, pricing, and dynamic models. The course emphasizes theory with support from specific industries, including telecommunications, retail, and airlines.

ECON3030 – Economic Applications of Game Theory

Credits: 3

Game Theory, also known as Multi-person Decision Theory, is the analysis of situations in which the payoff of a decision maker depends not only on his own

actions but also on those of others. Game Theory has applications in several fields, such as economics, politics, law, biology, and computer science. This course introduces the basic tools of game theoretic analysis, with some of the many applications of Game Theory, primarily in economics.

ECON3050 – Behavioral Economics

Credits: 3

The course covers recent topics in behavioral economics, with an emphasis on applications to other fields of economics. Topics include deviations from the standard neoclassical model in terms of (i) preferences (time and risk preferences, reference dependence, and social preferences), (ii) beliefs and learning (overconfidence, projection bias, and attribution bias), and (iii) decision-making (cognition, attention, framing, and persuasion), as well as (iv) market reactions to such deviations. Applications will cover a wide range of fields, including labor and public economics, industrial organization, health economics, household finance, political economy, and development economics.

ECON3070 – Strategy and Information

Credits: 3

The Strategy and Information course is an advanced course in game theory. We begin with a rigorous overview of the main equilibrium concepts for non-cooperative games in both static and dynamic settings with either complete or incomplete information. We define and explore properties of iterated strict dominance, rationalizability, Nash equilibrium, subgame perfection, sequential, perfect, and proper equilibria, the intuitive criterion, and iterated weak dominance. We discuss applications to auctions, bargaining, and repeated games. Then we introduce solution concepts for cooperative games and study non-cooperative implementations. Other topics include matching theory and networks.

ECON3090 – Institutional Economics

Credits: 3

The course analyzes the framework of rules and institutions for economic activities and transactions, including emergence and working properties of different institutions and classical and contemporary approaches to economic theory of institutions.

ECON3110 – Public Policy

Credits: 2

The course explores the role of government in the economy applying tools of basic microeconomics to answer important policy questions such as government response to global warming, school choice by students, social security versus

private retirement savings accounts, government versus private health insurance, setting income tax rates for individuals and corporations.

ECON4020 – Real Estates Economics

Credits: 3

The Real Estates Economics explores key policy issues, their economic impact on real-estate decision-making, and identifies indicators used to track economic and real estate performance. The course also examines the economic structure of major metropolitan areas, the impact of local governments on urban economic growth, the impact of urban economic growth on supply and demand identification for specific property types, and conditions under which certain regions thrive while others decline. Building upon the concepts and tools of economic analysis, this course introduces appropriate data sources and techniques useful in analyzing and forecasting real estate demand and supply in different markets for specific property types at specific locations.

ECON4040 – Finance and Society

Credits: 3

The Finance and Society course provides students with a broad historical and social-scientific introduction to a central aspect of modern economic life: Finance. By drawing upon a variety of disciplinary perspectives from the humanities and social sciences, the course offers a multi-dimensional picture of finance, not only as an economic phenomenon, but as a political, cultural, intellectual, material, and technological one. The course offers an introduction to foundational financial concepts and technologies and will help students understand finance as a complex and multifaceted phenomenon. This course also provides students with the opportunity to improve skills in written communication, and to learn tools for historical analysis and textual interpretation.

ECON4060 – Financial Crisis

Credits: 2

The Financial Crisis course is an introduction to the economic theories of financial crises. It focuses on amplification mechanisms that exacerbate crises, such as leverage, fire sales, bank runs, interconnections, and complexity. It also analyzes the different perspectives on the origins of crises, such as mistaken beliefs and moral hazard, and discusses the optimal regulation of the financial system. The course draws upon examples from financial crises around the world, especially the recent subprime financial crisis.

