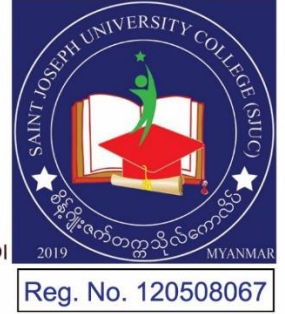


Saint Joseph University College (SJUC)

ခိန့်ဂျိုးဇက်တက္ကသိုလ်ကောလိပ်



Campus (1) Address

No. (739-741), Block No. (123),
Bagan Road, East Dagon 11451,
Yangon, Myanmar.

Tel: 09426988746, 09777760001, 095040477

ကျောင်းဝင်း (၁) လိပ်စာ။

အိမ်အမှတ် (၇၃၉-၇၄၁)၊ ရပ်ကွက်အမှတ်
(၁၂၃)၊ ပုဂံလမ်း၊ အရှေ့ဒဂုံမြို့သစ် ၁၁၄၅၁။

ရန်ကုန်၊ ရန်ကုန်တိုင်းဒေသကြီး

Reg. No. 120508067

Email: infosjuc@gmail.com, contactus@sjuc.edu.mm

Website: www.sjuc.edu.mm

Curriculum Outline on Bachelor of Environmental Science

1. DEGREE CONFERRED

- Bachelor of Environmental Science (B.Sc.)

2. School Fees

- Enrolment Fees is US\$ 100 (non-refundable)
- School fees is US\$ 15,000 for (4) years.

Payment Plan	US Dollar Currency
First Year	6000
Second Year	4000
Third Year	3000
Final Year	2000

3. GRADUATION REQUIREMENTS

Saint Joseph University College confers the degree of Bachelor of Architecture in Architecture upon students who meet all of the following requirements:

- Have completed of the total number of credits of the curriculum
- Have obtained a cumulative grade point average of at least 2.00
- Have participated in 16 sessions of the Professional Ethics Seminar
- Have obtained library and financial clearance from the University
- Have demonstrated good behavior and discipline
- Have to meet the minimum English Proficiency requirement specified in one of the following criteria

Test Instruments	Required Passing Scores
SJUC English Proficiency Assessment or	70%*
TOEFL (iBT) or	90
TOEFL (P) or	575
IELTS	6.5

*70% = Level B2 in Common European Framework of Reference for Language (CEFR)

4. OBJECTIVES

To produce graduates who have the characteristics, knowledge and skills as follows:

- (i) Conservation and management of natural resources like forest, water, air, mineral, etc.
- (ii) Conservation of biodiversities like genetic diversity, species diversity, ecosystem diversity, landscape diversity, etc.
- (iii) Control of environmental pollutions like air pollution, water pollution, soil pollution, solid waste pollution, noise pollution, electronic waste pollution, e-pollution, etc.
- (iv) Replacement of development (like green revolution, urbanization,) economic growth, industrialization, etc.) With sustainable development
- (v) Control of human population.
- (vi) Ecology

I. CURRICULUM OUTLINE

YEAR ONE	
Semester One	Semester Two
Professional English 101: Macro Skills	Professional English 102: Macro Skills
Professional Writing 103	Professional Writing 104
Natural Sciences, Global Environmental Problems: EN 111	Computer Skills: CS 110 Introduction to Computers
College Math 103: Algebra and Geometry	College Math: 104 Calculus
YEAR TWO	
Semester One	Semester Two
General Biology: BIO 114	General Biology: BIO 115
History of Southeast Asia, Myanmar and ASEAN 201	Philosophy of the Human Person 201
Weather and Climate: ER 203	Professional Writing: 203
College Physics: PHY 211	College Physics: PHY 212
THIRD YEAR	
Semester One	Semester Two
General Chemistry: CHM 361	General Chemistry: CHM 362
Principles of Biological Diversity: BIO 370	Human Geography: LS 321
Insects and Human Society: BIO 362	General Botany: BIO 320
Surface Water Resources: ER 332	Professional Writing: 303
Fourth YEAR	
Semester One	Semester Two
Energy and Sustainability: EN 405	Integrative Seminar: LS 401
Land Resources and Environmental Sciences: LM 410	Evolution for Environmental Scientists: EN 460
Supervised Internship 1	Supervised Internship 2

111. CURRICULUM DESCRIPTIONS

YEAR ONE

SEMESTER ONE

***Professional English 101: Macro Skill**

Strengthening of Macro Skills: Listening, Speaking and Reading. Studies the nature and practice of reading and writing as human interaction, with particular attention to elements of writing as students enter the university writing environment.

*** Professional Writing 103**

Systematic build-up of English composition in tandem with Professional English 101.

*** Global Environmental Problems: ES 111**

This course explores the environment through the lens of human influence. We will discuss human behavior as it relates to the treatment and use of the environment, from a geographical perspective. Then we focus on spatial dimensions of global environmental issues, which includes Earth's subsystems, population growth, land-use change, industry and uneven development, specific examples of the human footprint, and climate change.

***College Math 103: Algebra and Geometry**

This course provides the mathematical literacy necessary for success in today's technological and business orientated society with the algebraic and geometric skills required to use probability, design, and logistic growth models.

SEMESTER TWO

*** Professional English 102**

Continuation of Professional English 101

***Professional Writing 104**

Continuation and Advance. Systematic build-up of English composition in tandem with Professional English 102 with emphasis on English Grammar

*** Computer Skills: CS 110**

Students review the computing field and how it impacts the human condition. Introduces exciting ideas and influential people. Provides a gentle introduction to computational thinking using the Python programming language.

***College Math 104: Calculus**

We will look at functions, elementary transcendental functions, limits and continuity, differentiation, applications of the derivative, curve sketching, and integration theory.

YEAR TWO

SEMESTER ONE

*** General Biology: BIO 214**

A two-semester course, this course is an introduction to basic principles of college biology. Topics include cellular biology and genetics. The general course goal is to provide students with a sound foundation in selected biological topics. This foundation will permit students to continue further studies in biology as it impacts environment issues. Lab.

*** History of Southeast Asia, Myanmar and ASEAN: LS 201**

Up to the recent past, Myanmar history was heavily redacted for “national security” purposes by a military government that sought to recast national history to protect its own power. Similarly, access to the history of neighbouring countries was limited and often redacted for the same reasons. This course will rectify these false approaches to history by introduction Myanmar history from the institution of the first Myanmar king, Aniruddha (1044-1077), thru national identity building, the English conquest, and the launch of democracy in 1947 with independence from the UK. It will explore the wider historical development of the other nations in Southeast Asia and trace the development of the ASEAN community as a contemporary development that strengthens all of its 10-member nations.

Weather and Climate: ER 203

This course examines climates of the continents, and their classification, characteristics and interrelationships with other factors of the physical and human environment. Special emphasis on climate change across Southeast Asia.

Physics: PHY 211

A two-semester course, this course covers topics in thermo-dynamics such as temperature, heat, laws of thermodynamics, and the kinetic theory of gases. And modern physics, such as relativity; models of the atom; quantum mechanics; and atomic, molecular, solid state, nuclear; and particle physics.

SEMESTER TWO

*** General Biology: BIO 215**

Continuation of General Biology 214

***Philosophy of the Human Person: LS 201**

Students explore what philosophy is and what philosophers do through a survey of the works of great philosophers such as Socrates, Plato, Aristotle, Confucius and others who have impacted the world of ideas and leadership over the millenniums. Emphasis will be on the development of the nation and state. Students will explore the relationship between mind, body and idealism.

***Professional Writing 203**

Mid-college review of English composition as related to environmental science and essay writing.

*** Physics: PHY 212**

Continuation of PHY 211

YEAR THREE

SEMESTER ONE

***General Chemistry: CHM 361**

The first of a two-semester course sequence about the general principles of modern chemistry with emphasis on atomic structure, chemical bonding, the periodic table, equilibria, chemical reactivity, and kinetics. It is recommended that students registering for this course have taken high school chemistry.

*** Principles of Biological Diversity: BIO 170**

This course examines the biology, ecology, and evolutionary relationships among living organisms. All forms of life will be considered, from single celled prokaryotes to multicellular eukaryotic plants and animals.

*** Insects and Human Society: BIO 162**

Ways in which research and advances in technology in the areas of insect biology and management have influenced people's lives throughout the world. Focus will be on insects as major factors affecting the areas of the world where humans live, crops and animals congregate, and the general quality of life on the planet. Special emphasis on Southeast Asian variants. Interactions of insects and human cultures, technologically oriented and indigenous, non-technology-based cultures, and concepts of pest management will also be explored. Field work.

***Surface Water Resources: ER 432**

Physical analysis of the surface portion of the hydrologic cycle: climate, evapotranspiration, precipitation, runoff, flooding, sediment production, sediment transport and drainage basins. The surface-water resource in terms of regional supply and human use and intervention. Lab.

SEMESTER TWO

***General Chemistry: CHM 362**

Continuation of General Chemistry 361

*** Human Geography: LS 121**

Global geographies of population and economic development; patterns of language and religion; global distributions of agriculture, industry, and urban landscapes; use of human geography to analyze selected world problems

*** General Botany BIO 320**

This course focuses on organisms that possess plastid organelles in all their cells, and investigates their function (physiology, biochemistry), diversity, life cycles, and environmental adaptations. Particular emphasis is place on Myanmar. Lab.

***Professional Writing 303**

Later-college review of English composition as related to environmental science and essay writing.

YEAR FOUR

SEMESTER ONE

*** Energy and Sustainability: EN 205**

Students explore an array of renewable and non-renewable energy sources and energy conversion systems. Contemporary and contentious energy related issues are presented, and course participants will formulate strategies to address them. Field work required.

***Land Resources and Environmental Sciences: LM 410**

Introduction to environmental science associated with managed and natural ecosystems in Myanmar. Students will learn how to identify scientific questions from issues, and how to develop scientifically-based objective information for answering environmental and land management questions. The class is a survey of the department’s majors in agroecology, environmental biology, geospatial sciences, land rehabilitation, and soil and water science. Students must be proficient in basic algebra and have an understanding of biological principles.

*** Supervised Internship**

This supervised experience is the focal point of a student’s study and personal environmental interest withing Myanmar and ASEAN. Local private organizations and NGOs will have been cultivated by SJUC leadership so they will invite students to intern in their organizations. A small stipend will be offered in agreement with SJUC leadership. It is hoped that at the end of senior year the organization may offer the students a full-time position after graduation. (10 hours.)

SEMESTER TWO

*** Integrative Seminar LS 401**

Students are invited to an integrated knowledge of the theories, concepts and field activates experienced across different disciplines during the four years of environmental science study. Group sharing and a personal presentation in class are required.

***Evolution of Environmental Scientists: EN 460**

Overview of the mechanisms and patterns of evolution, focusing on the role of evolutionary biology in contemporary issues in environmental science in Myanmar.

*** Supervised Internship**

This supervised experience is the focal point of a student’s study and personal environmental interest withing Myanmar and ASEAN. Local private and public organizations, and NGOs will have been cultivated by SJUC leadership so they will invite students to intern in their organizations. A small stipend will be offered in agreement with SJUC leadership. It is hoped that at the end of senior year the organization may offer the students a full-time position after graduation. (10 hours.)

Course notations:

BIO: Biology

CS: Computer Science

CHM: Chemistry

ER: Earth Science

ES: Environmental Science

LM: Land Management

LS: Liberal Studies

PHY: College Physics