

Rajamangala University of Technology Phra Nakhon (RMUTP): Creating Future Graduates by Integrating Innovation and Sustainability into Every Dimension of Learning

Rajamangala University of Technology Phra Nakhon has established an educational paradigm focused on a holistic integration of knowledge. A key objective is to embed the 17 Sustainable Development Goals (SDGs) into every component of the academic curriculum. The aim is to produce graduates who are equipped with 21st-century skills and a genuine sense of social and environmental responsibility.

The core of this model is the General Education program, which is designed to be the central pillar that connects and integrates with specialized subjects across all fields of study, ensuring a curriculum-wide integration. All students are required to register for and complete the specified credit requirements in General Education courses, which are divided into four main groups that comprehensively address sustainable development.

The Four General Education Groups: A Mechanism for Driving Sustainable Development Goals

RMUTP has structured its General Education program to be a crucial tool for instilling sustainability concepts and skills in every student. It is divided into four main groups that are significantly linked to the SDGs, as follows:

1. Technology, Innovation, and Environment

This group focuses on building an understanding of the dynamics of technology and innovation that promote environmentally friendly development. It directly aligns with SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action). Students will learn to apply technology to solve environmental problems and create innovations for sustainability.

- **Courses in the Technology, Innovation, and Environment Group:**

- GE2101101 Science and Concept of Modernization
- GE2101102 Media, Information, and Digital Literacy
- GE2100103 Research Methodology
- GE2100104 Innovation of Recreation for Fun and Happiness
- GE2100105 Introduction to Statistics
- GE2100106 Content of Statistics
- GE2100107 Statistical Thinking
- GE2100108 Business Mathematics
- GE2100109 Fundamental Mathematics
- GE2100110 Invisible Math
- GE2100111 Mathematics in Daily Life
- GE2100112 Thinking, Decision Making and Problem Solving
- GE2100113 Data Analysis Using Statistical Package Program
- GE2100114 Program You Should Know
- GE2100115 Digital Life
- GE2100116 Health and Anti-Aging Science
- GE2100117 Environment and Resources Management
- GE2100118 Happy Life with Green Technology
- GE2100119 Life and Technology
- GE2100120 Science in Daily Life

2. Language and Communication

Effective communication skills are a fundamental basis for advancing the global sustainable development agenda. This group, therefore, aims to enhance cross-cultural communication abilities and the use of language to foster collaboration, which is essential for achieving SDG 16 (Peace, Justice, and Strong Institutions) and SDG 17 (Partnerships for the Goals).

- **Courses in the Language and Communication Group:**

- GE2201101 English for Communication in Digital Era
- GE2201102 Fundamental Chinese Conversation
- GE2201103 Language Creativity for Life Development
- GE2201104 Languages and Communication in Multicultural Society
- GE2200105 English for Entrepreneur
- GE2200106 English Conversation
- GE2200107 English Reading
- GE2200108 English from Entertainment Media
- GE2200109 Technical English
- GE2200110 English for Online Business
- GE2200111 Chinese for Service Businesses
- GE2200112 Language and Presentation
- GE2200113 Thai for Communication
- GE2200114 Thai for Business Communication

3. Life Skills, Well-being, and Citizenship

This group emphasizes the holistic development of students—physically, mentally, and as socially responsible citizens. It links to SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 5 (Gender Equality), and SDG 10 (Reduced Inequalities). Students will learn life skills, health management, and how to participate as global citizens.

- **Courses in the Life Skills, Well-being, and Citizenship Group:**

- GE2301101 Human Capital and Social Development
- GE2301102 Sports and Recreation for Life Quality Development
- GE2301103 Health for Well-being
- GE2300104 Human Behavior and Self-Development
- GE2300105 Social Dynamics and Modernity
- GE2300106 Contemporary Asian Culture
- GE2300107 Life Skills in 21st Century
- GE2300108 Mental Wisdom and Creative Thinking
- GE2300109 An Honest Country
- GE2300110 Human Relations and Conflict Management
- GE2300111 Recreation for Quality of Life
- GE2300112 Social Dance for Health and Personality Development
- GE2300113 Balance of Life for Health and Beauty
- GE2300114 Science for Living
- GE2300115 Green Living
- GE2300116 Consumer Choose Wisely
- GE2300117 Lifestyle in Modern World
- GE2300118 Law and Professional Ethics
- GE2300119 The King's Philosophy to Sustainable Development

4. Professional and Entrepreneurial Skills

To produce graduates who can drive the economy while concurrently promoting sustainable social development, this group focuses on developing the necessary skills for careers and socially responsible entrepreneurship. It aligns with SDG 1 (No Poverty), SDG 2 (Zero Hunger), and SDG 8 (Decent Work and Economic Growth).

- **Courses in the Professional and Entrepreneurial Skills Group:**

- GE2401101 Development Student Competencies for the Professional World
- GE2400102 Occupation and Entrepreneurial Skills
- GE2400103 History for Career Creation
- GE2400104 Personality Development for Entrepreneur
- GE2400105 Study Science to Get Rich Business
- GE2400106 Development of Community Products
- GE2400107 Engineering Design and Innovation

By integrating a General Education program that covers all dimensions of sustainability into every curriculum, RMUTP is not merely an institution that imparts academic knowledge but also a nurturing ground for "**Global Citizens**" who are ready to be a significant force in creating a sustainable future for all.