SUSTAINABLE ENERGY AND ENVIRONMENT

Our Partner:

Fachhochschule Südwestfalen University of Applied Sciences
Hochschule Albstadt-Sigmaringen Albstadt-Sigmaringen University
IMI UNIVERSITY CENTRE
Ernst-Abbe-Hochschule Jena University of Applied Sciences
OAC WOOSONG UNIVERSITY
HOKKAIDO UNIVERSITY
UMKC

sgu.ac.id

About Sustainable Energy and Environment

Our current world concern is how life can continue a sustainable basis. This mainly refers to the fact that fossil fuels are predicted to run out in 2060 and the world temperatures continue to rise. Sustainable Energy & Environment, under the SGU Chemical Engineering Study Program, focuses on renewable energy, energy conservation, the environment, water resources and prepares the human resources needed for these developments, for Indonesia and for the world. In short, when you learn this, you will actively contribute to saving the future.

Career Prospect

Graduates of this program can be employed in new and renewable energy sectors, and other sectors, such as chemical, petrochemical, palm oil, gas, and oil companies, as well as in various companies that place a priority on energy conservation and the environment. They also can work as consultants, engineers, specialists, researchers, and entrepreneurs.

Alumni of the Pharmaceutical Engineering Study Program have been accepted into top-tier firms, and the study program has established industry partnership, such as:

International Academic Experience:

- Joint Degree Program with Ernst-**Abbe-Hochschule Jena** (approx. 1 year), get Sarjana Teknik (S.T.) and Bachelor of Science (B.Sc.) degrees.
- Internship program to ensure students receive global professional experience.
- Experience student exchange in several **European** and **Asian** countries.
- Accelerate Success with the **SGU-University of Missouri - Kansas City** Fast Track Program

CURRICULUM

DOUBLE DEGREE
Academic Year 2024/2025

SEMESTER 1

English 1
Calculus and Linear Algebra 1
Physics 1
Physics 1 Laboratory
Chemistry 1
Chemistry 1 Laboratory
Introduction to Information Technology
Introduction to Electrical Engineering
Energy Policy and Conventional Energy
Indonesian Language

Extracurricular Courses
German Language and Culture 1

SEMESTER 2

English 2
Calculus and Linear Algebra 2
Physics 2
Physics 2 Laboratory
Chemistry 2
Chemistry 2 Laboratory
Engineering Statistics
Introduction to Environmental Engineering
Engineering
Microbiology
Ethics and Religious Philosophy

Extracurricular Courses
German Language and Culture 2

SEMESTER 3

English 3
Internship 1 (Indonesia)
Materials and Energy Balance
Analytical Instrumentation
Applied Mathematics
Renewable Energy 1 (Bioenergy-Ocean)
Thermodynamics
Thermodynamics Laboratory
Transport Phenomena

Extracurricular Courses
German Language and Culture 3

SEMESTER 4

English 4
Unit Operations
Heat Transfer
Engineering Economics and Analysis
Physical Chemistry
Chemical Reactions and Kinetics
Renewable Energy 2 (Solar-Wind-Hydro)
Numerical Methods
Separation Technology
Fluid Mechanics

SEMESTER 5

Environmental Chemistry
Waste Treatment & Resources Efficiency
Ecobalance
Decentralized Energy Supply
Environment & Process Metrology
Water Purification

SEMESTER 6

Internship 2 (abroad)
Returnee Seminar

SEMESTER 7

English 5
Plant Design and Energy Modelling
Research Methodology
Process Control
Hydrogen-Nuclear Energy
Energy Conservation and Audit
Process Equipment Design
Entrepreneurship

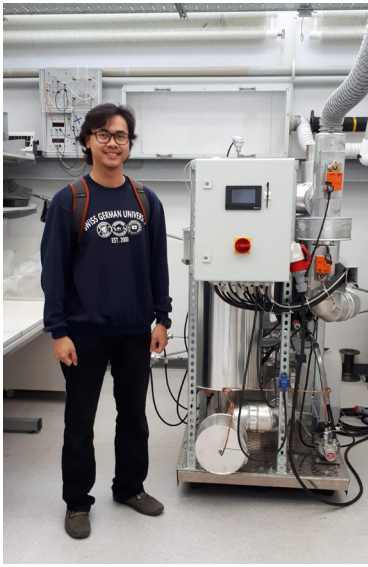
Elective Subjects
Bioprocess Engineering
Materials Science

Extracurricular Courses:
Industrial Electrical System

SEMESTER 8

Professional Competence Assessment (PCA)
Thesis
Character and Professional Development Program (CPDP)*
Pancasila and Civic

INTERNSHIP EXPERIENCES



Contact Us:
SWISS GERMAN UNIVERSITY
The Prominence Tower Alam Sutera, Jl. Jalur Sutera Bar. No.Kav 15, RT.003/RW.006,
Panunggangan Tim., Kec. Pinang, Kota Tangerang, Banten 15143

(+62) 21 2977 9596/7 (+62) 811-8010-600 (Bachelor) (+62) 811-995-8010 (Master) @swissgermanuniv sgu.ac.id