

The Faculty of Engineering has developed into a modern and respected engineering education institution at Universitas Indonesia with a vision to become a world-class engineering education institution. The Faculty of Engineering is one of the largest faculties at Universitas Indonesia with more than sixty percent of its academic staff graduating from recognized universities with Ph.D. and Master degree. The faculty has been running undergraduate programs since 1964 and also offers graduate programs. The Faculty of Engineering consists of seven Departments and twelve Study Programs. Each department manages academic resources to implement a coherent study plan based on a relevant curriculum which ensures that learners attain a sufficient level of knowledge, skill and attitude targeted by the Study Program.

Realizing the importance of the graduates' future career, the faculty has established a Career Development Center, which is responsible for providing information on job opportunities and placement and graduates' career development.

In terms of international collaboration, the faculty has been developing mutual cooperation with overseas universities from all around the world in academic and research areas. The faculty is in close academic cooperation with Queensland University of Technology, Monash University, Curtin University of Technology, University of Queensland, University of Sydney, University of Duisburg-Essen, Intergroup of Ecole Centrale, University of Florida, NTUST, and Shizuoka University (to name a few) for joint degree programs at the bachelor, master and doctoral level.

The research strategic plan at the Faculty of Engineering is formulated to articulate the core principles and priorities in order to support the vision and mission. Combining this plan and Universitas Indonesia's research priorities and national strategic areas, as well as millennium development goals (MDGs), the focus theme is then defined as "Integrated Design in Urban Eco-Technology for Quality Human Life and Environment". This theme covers all research strength in engineering and provides spacious room for building multidisciplinary research.

In order to realize the above mentioned research strategic plan, there are three key components that play a major role in the development of research, i.e. human resources, infrastructure and facilities, and institutional capacity.



FACULTY OF ENGINEERING

RESEARCH INTERESTS

Civil Engineering

Focus Area:

Green Infrastructure by Design

Environmental Engineering:

- Water supply and management;
- Liquid and solid waste; pollution control and prevention;
- Hazardous waste management; and soil surface quality.
- Water Engineering: focuses on rainwater management;
- Water related green infrastructure;
- Integrated and ground and surface water management;
- Water related disaster management;
- Water resources management; and
- Sediment contaminant and transport.

Transportation Engineering:

- Public transportation planning and development;
- Traffic impact, management, and safety;
- Master plan and policy.

Geotechnical Engineering:

- Peat soil;
- Pavement geotechnical;
- Geosynthetic-reinforced earthwork;
- Earthquake;
- Landslide;
- Unsaturated soil behavior; and
- Bio-grouting of sandy soils.

Structural Engineering:

- Concrete technology and engineering;
- Fiber-reinforced concrete;
- Polymer concrete;
- Waste and recycled concrete;
- Public building,
- Structural studies and design;
- Advanced structural analysis; and
- Masonry structures and materials.

Project Management and Value Engineering:

- The application of project management in construction
- and transportation industry.

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Mechanical

Focus Area:

Energy Conservation through Efficient Design and Manufacturing

Advanced Manufacturing Technology and Automation:

- Micro-fabrication and intelligent manufacturing systems.

Thermal and Fire Safety Engineering:

- Fundamental study of lifted flames;
- Downdraft biomass gasification;
- Biofuel for automotive applications; and
- Fire safety engineering such as spontaneous combustion, fire calorimetry, smoke detection, flame spread and development of water-mist technology.

Advanced Refrigeration Systems and Technology:

- Design and construction for high efficiency refrigeration and air conditioning including the works for green building, cold storage, vacuum and freeze drying, methane storage, low temperature cascade and green building technology.

High Efficiency Fluid Engineering:

- Advanced turbulent control for manufacturing processes and vehicle aerodynamics, micro-bubbles application, advanced drag reduction techniques, and micro-turbo machinery.

Advanced Heat Transfer Technology:

- Heat and relevant mass transfer in spray drying, forced and natural convection of nanofluids. Thermophoretic force, thermal measurement techniques, thermoacoustics, evaporation in small tubes and (some applications in heat exchanger, thermoelectric cooler, and cryosurgery).

Naval Architecture and Marine Engineering:

- Ship resistance and power effectiveness for small ship; ship structural design; novel ship materials; and marine transportation.

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Electrical Engineering

Focus Area: Renewable Energy, Electronics and ICT for Urban Communities

Power and Renewable Energy:

- Energy system such as solar cell, wind turbine, micro-hydro, micro-turbine, and diesel generators.

Sensor and Electronic Devices:

- Micro-electro mechanical systems (MEMS), photonics, communication electronics, medical sensors, nanodevices, optical sensors, and corrosion sensors devices.

Multimedia and Network:

- Design and realization of distributed multimedia system architecture to convey multimedia information over networks.
- Optoelectrotechnique and Remote Sensing: focuses on optics, remote sensing, and image processing.

Digital Signal Processing:

- Array processing, pattern recognition, radio software, spectral analysis, coding and modulation, and wireless applications.

Propagation and Microwave Antenna:

- Novel micro strip antenna design for cellular and satellite communications and ultra wide band (UWB) components and systems.

Mobile Communication:

- Telecommunication engineering, satellite constellation design and high altitude platform (HAP), integration of satellite and terrestrial networks, mobility and traffic management for cellular and maximum segment size (MSS) networks, cross layer optimization, network dimensioning, broadband wireless access (BWA) and UWB communications systems.

Real Time Measurement and Control:

- Nonlinear systems and control, robust control for time delay systems, neural networks, fuzzy logic, control and embedded system and decision making.

More Information

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Metallurgy and Materials Engineering

Focus Area:

Eco-based Materials Design and Processes

Advanced Materials:

- Nanostructured materials used for solar cell, cell labelling, and mesopores applications; geopolymer used as a replacement for Portland cement and for advanced high-tech composites, ceramic applications or as a form of cast stone; aluminium foams; nanocomposites; metal matrix composites; polymer matrix composites, ceramic matrix composites,

materials development for high capacity battery used in electrical car; and bipolar plates for fuel cell applications.

Materials Chemistry and Corrosion Protection:

- Materials selection process and corrosion prevention through materials manipulation and engineering including natural product inhibitors; ores processing by utilizing local energy resources and reducing agents such as low grade coal and charcoal.

Materials Manufacture:

- Developing a more efficient method in materials processing such as casting, forming, and welding, especially to support industries in Indonesia; materials processing and simulation; development of high strength zero-defect nano-precipitates; high strength low alloys development through a processing and heat treatment; and processing-properties-microstructure relationship in metallic materials; development of light alloys used for body armour and combat vehicle as well as failure analysis of component and structures.

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Architecture

Focus Area:

Eco-Architecture

Ethno Architecture:

- The social, cultural, and technological aspect of hinterland indigenous building.
- Housing and Settlement: Living transformation pattern of kampong and high rise living structures as well as coastal and archipelagic settlement problems.

Building Science and Technology:

- Alternative building materials and tropical sustainable building and urban space problems.

Architectural History and Theory:

- Urban history and heritage conservation.
- Urban Design and Plan: Spatial patterns caused by migration, tropical spatial distribution of livable space, and design activism for empowering local community.
- Environmental Psychology: Crowding and sustainability of alternative utilization of space.

More Information

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Chemical Engineering

Focus Area:

Sustainable Chemical and Bioengineering for Energy and Product Development

Chemical and Natural Product Design:

- Natural based product, design of various chemical reactors, and performance of various chemical reactions through experimentation as well as computer based modeling and simulation.

Sustainable Energy:

- The sustainability of energy supply, greenhouse effect, energy efficiency, green and renewable energy resources; development of novel materials for energy, clean combustion, hydrogen production and fuel cells, energy storage, clean fossil fuels/coal-bed methane, bioenergy; and sustainable energy systems and policy.

Industrial Bioprocess:

- Conversion of biological materials into other useful forms, bioenergy, environmental biotechnology, functional food, molecular modelling, bio-catalysis and biomass.

Process Intensification:

- Development of smaller, cleaner, and more efficient technology that leads to lower energy and materials use in the bulk chemical industry.

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Industrial Engineering

Focus Area:

Integrated Systems Design through Sustainable Service System

System Engineering:

- The optimization of vehicle and passenger queuing in a transportation process.

Industrial Economics:

- focuses on various economics model for industry and industrialization of engineering product.

Ergonomics:

- Ergonomics study of engineering products.

Product Design:

- Product and process development in manufacturing and service industry by using conjoint analysis.

Production System:

- Production system development through manufacturing simulation laboratory.

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RESEARCH CENTERS

1. Lembaga Teknologi (LEMTEK)
2. Career Development Center (CDC) FTUI
3. Continuing Education Program on Computer for Computing and Information Technology (CEP-CCIT)
4. Pengkajian Energi (PE (Energy Assessment))
5. Pusat Penelitian Sains dan Teknologi (PPST (Research Center for Science and Technology))
6. Center for Materials Processing and Failure Analysis (CMPFA, Department of Metallurgy & Materials Engineering)

FACULTY CONTACT

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BACHELOR'S DEGREE

ARCHITECTURE

Degree : Sarjana Arsitektur (Bachelor of Architecture)

Campus Location : Depok Campus

Lecture Schedule : Morning/Daytime

Length of Study : 8 Semesters

Language : Indonesian

Accreditation : A

The Architecture Study Program is managed by the Department of Architecture, Faculty of Engineering. The department actualizes its vision and mission of architecture study by engaging knowledge of design, technical qualifications in architecture, professional skills, interpersonal skills, environmental perspectives and life-long education.

The curriculum of the program is designed by combining undergraduate qualification aspects, graduate basic competence and engagement with IAI (Indonesian Architect Association). By such curriculum design, outstanding students with particular academic qualifications will have opportunities to directly pursue a of professional program in architecture for 1 year (4 + 1) or Master program with course equivalency consideration. The Department of Architecture has been assessed by the Asean University Network (AUN).

Class activities focus on problem-based learning, collaboration and student-centered works, in which lectures are mostly about on-studio designing activities. The program materials are supported and enriched with empowerment of the surrounding resources such as cultural, intellectual and regional economical aspects of Jakarta as the real benchmark of learning. Positioning the knowledge in a practical area, the study program equips its graduate in pursuing their future careers with integrity, creativity, flexibility, professionalism and personal development, cooperation and intellectual excellence.

CAREER OUTLOOK

There are many career options graduates can pursue in the field of architecture, such as construction industries, building management, project assessor, either in private or governmental sector.



BIOPROCESS ENGINEERING

Degree : Sarjana Teknik (Bachelor of Engineering)

Campus Location : Depok Campus

Lecture Schedule : Morning/Daytime

Length of Study : 8 Semesters

Language : Indonesian

Accreditation : A

The objective of the study program is to educate young engineers to achieve a comprehensive competence in the area of Bioprocess Engineering such as technology development, basic application of bioprocess technology and other related fields. The graduates must also be able to manage the design, operations, research and development of related industries.

The curriculum emphasizes the basic knowledge of bioprocess engineering, application of bioprocess engineering technology, soft skills development in a broad-based knowledge learning environment.

Students must complete courses of at least 144 credits, consisting of basic engineering courses (basic science and basic bioprocess engineering), engineering design, internship, projects and thesis.

CAREER OUTLOOK

Students have the opportunity to pursue careers in industry as project manager, project supervisor, bioprocess engineer and bioprocess consultant. Employment sector can be either at private companies or government institutions.

CHEMICAL ENGINEERING

Degree : Sarjana Teknik (Bachelor of Engineering)

Campus Location : Depok Campus

Lecture Schedule : Morning/Daytime

Length of Study : 8 Semesters

Language : Indonesian

Accreditation : A

The objective of the study program is to educate young engineers to obtain core competence in the area of Chemical Engineering, such as basic chemical engineering application, chemical process technology and other related fields. Graduates must also be able to master the design, operations, research and development of related industries.

Chemical Engineers will have a wide range of opportunities for future development, such as research on new energy, empowerment of natural resources by synthetic material, research on solution for energy efficiency, research on sustainable environment by product recycling, etc.

The teaching materials put emphasis on basic knowledge of chemical engineering, application of chemical engineering technology, soft skills development in a broad-based learning environment. The Department of Chemical Engineering has been assessed by the Asean University Network (AUN).

Students must complete courses of at least 144 credits, consisting of basic engineering courses (basic science and basic chemical engineering), engineering design, internship, projects and thesis.

CAREER OUTLOOK

Students have the opportunity to pursue careers in industry such as biomanufacturing, chemical manufacturing and mining which can be either at private companies or government institutions.

CIVIL ENGINEERING

Degree : Sarjana Teknik (Bachelor of Engineering)

Campus Location : Depok Campus

Lecture Schedule : Morning/Daytime

Length of Study : 8 Semesters

Language : Indonesian

Accreditation : A

Civil Engineering, in meeting current challenges, includes public as well as private sectors such as problems of pollution, development and conservation of facilities for floods, earth quakes, traffic jams and the development of urban areas. A civil engineering graduate plans, designs and develops as well as manages various facilities in an effort to meet the requirements of modern human life. Works that need the expertise of civil engineering varies in dimension and coverage, including construction of bridges, buildings and structures, power plants, off-shore structures, transportation systems.

The Bachelor Program in Civil Engineering is offered in five concentrations: Structural Engineering, Water Resources Engineering, Transportation Engineering, Construction Management and Geotechnical Engineering. The Department of Civil Engineering is not only nationally accredited with an outstanding

A from the National Accreditation Board but is also internationally accredited by the Asean University Network in 2008.

The Program is designed for a four years (eight semesters) tuition providing a comprehensive foundation in the area of civil engineering. The courses are distributed into 18-20 credits or 5 to 6 subjects at each semester where each subject is worth 3 – 5 credits. In total, a student has to obtain 144 credits to complete the studies and be awarded Bachelor of Civil Engineering.

Practical aspects of civil engineering and the ability to work in a team, attitudes, ethics, professional values, communication skills and computer skills are emphasized through laboratory works and design projects. Comprehensive training models of the teaching and learning processes are a strategic approach in the development process, considering also complementary subjects such as communication skills, management and economics.

CAREER OUTLOOK

Graduates with expertise in civil engineering have opportunities to work in property development, construction, mining industry, marine and off-shore development, either in private or government institutions.

COMPUTER ENGINEERING

Sarjana Teknik (Bachelor of Engineering)

Campus Location : Depok Campus

Lecture Schedule : Morning/Daytime

Length of Study : 8 Semesters

Language : Indonesian

Accreditation : B

Computer Engineering covers the study of the electrical components of computers, computer circuit, devices that contain computers, hardware and software, the design of interface program with the device users and other possible devices.

The Program is designed as a four-year program (eight semesters) providing a comprehensive foundation in the field of computer engineering. The courses are distributed into 18-20 credits or 5 to 6 subjects in each semester. Each subject is worth 3 – 5 credits. To complete this program a student is required to obtain 144 credits to be awarded Bachelor of Computer Engineering.

Practical aspects of Computer engineering and

teamwork, attitude, ethics, professional values, communication skills and computer skills are emphasized through laboratory works and group-work projects.

CAREER OUTLOOK

Graduates with expertise in Computer engineering are in demand with opportunities to work in information technology solution companies, software engineering companies, telecommunications companies and computer hardware designer companies.

ELECTRICAL ENGINEERING

Sarjana Teknik (Bachelor of Engineering)
Campus Location : Depok Campus
Lecture Schedule : Morning/Daytime
Length of Study : 8 Semesters
Language : Indonesian
Accreditation : A

Graduates of the Faculty of Engineering are groomed to compete beyond the national employment market. As a matter of fact, many have proven their excellent performance in many industrial sectors not only in Indonesia, but also overseas. Having competent staff with international education and experience, the faculty sets itself to consistently develop and expose the staff to state of the art technology in the global community. An outstanding (A) acknowledgement from the National Accreditation Board (BAN) is concrete proof of this goal. The Department of Electrical Engineering has been assessed by the Asean University Network (AUN).

Courses are designed and taught to provide students with unlimited opportunities to develop their knowledge, not only in theoretical aspects, but also in the real world. Our cooperation with the industrial community provides invaluable support for students to keep up with the latest technology.

CAREER OUTLOOK

Graduates of electrical engineering are able to pursue careers in construction management, manufacturing industries, power provider, electronic manufacturer, etc.

ENVIRONMENTAL ENGINEERING

Degree : Sarjana Teknik (Bachelor of Engineering)
Campus Location : Depok Campus
Lecture Schedule : Morning/Daytime
Length of Study : 8 Semesters
Language : Indonesian
Accreditation : B

Environmental Engineering focuses on how engineering technology contributes to environmental improvement. A degree in Environmental Engineering includes areas such as waste control, pollution control and possible technology to improve environmental quality for human life.

The Program is designed as a four-year program (eight semesters) and provides a comprehensive foundation in the area of environmental engineering. The courses are distributed into 18-20 credits or 5 to 6 subjects at each semester. Each subject is worth 3 – 5 credits. To complete this program a student is required to obtain 144 credits to be awarded Bachelor of Environmental Engineering.

Practical aspects of environmental engineering and teamwork, attitude, ethics, professional values, communication skills and computer skills are emphasized through laboratory works and group-work projects. Complementary subjects such as communication, management and economic skills are provided as a strategic approach in order to implement a comprehensive educational process.

CAREER OUTLOOK

Graduates with expertise in environmental engineering have opportunities to work in property development, construction, mining industry, marine and off-shore development, either in private or government institutions.

INDUSTRIAL ENGINEERING

Degree : Sarjana Teknik (Bachelor of Engineering)
Campus Location : Depok Campus
Lecture Schedule : Morning/Daytime
Length of Study : 8 Semesters
Language : Indonesian
Accreditation : A

Industrial Engineering is concerned with the design, improvement and installation of integrated systems of people, material,

information, equipment and energy. It draws upon specialized knowledge and skills in the mathematical, physical and social sciences together with the principles and methods of engineering analysis and design to specify, predict and evaluate the results to be obtained from such systems.

Industrial engineering (IE) gives students the opportunity to work in a variety of businesses. The most distinctive aspect of industrial engineering is the flexibility that it offers. Whether it's shortening a roller coaster line, streamlining an operating room, distributing products worldwide, or manufacturing superior automobiles, all share the common goal of saving the company's money and increasing efficiency. Industrial engineering has provided a systematic approach to streamline and improve productivity and efficiency. Benefits that can be linked directly to the work of industrial engineers include:

- Improved efficiency. This improves competitiveness, profitability and reduces resource requirements.
- Good organization and productivity improvement - these improvements eliminate or reduce some of the frustrations of life and are essential to the long term health of business.
- Providing a method by which businesses can analyze their processes and try to make improvements.
- Reducing costs associated with new technologies, thus allowing more of the population to better their lives by being able to afford technological advances.

CAREER OUTLOOK

Graduates of Industrial Engineering have the expertise in the business process of industrial engineering. Graduates are in demand in various manufacturing industries such as food industries, electronics industries, automotive industries, clothing, etc.

INTERIOR ARCHITECTURE

Degree : Sarjana Arsitektur (Bachelor of Architecture)
Campus Location : Depok Campus
Lecture Schedule : Morning/Daytime
Length of Study : 8 Semesters
Language : Indonesian
Accreditation : A

The Interior Architecture Study Program is managed by the Department of Architecture, Faculty of Engineering. In the initial years, the curriculum of the program was developed to equip students with basic knowledge of

design and aesthetic aspects of an element. It was further elaborated with architectural skills, project management, environmental perspective, product design and internship.

The class activities focus on problem-based learning, collaboration and student-centered works, in which lectures are mostly of on-studio designing activities.

CAREER OUTLOOK

There are many career options that graduates of interior architecture can pursue, such as in construction industries, real estate industries and interior consultancy services.

MECHANICAL ENGINEERING

Degree : Sarjana Teknik (Bachelor of Engineering)

Campus Location : Depok Campus

Lecture Schedule : Morning/Daytime

Length of Study : 8 Semesters

Language : Indonesian

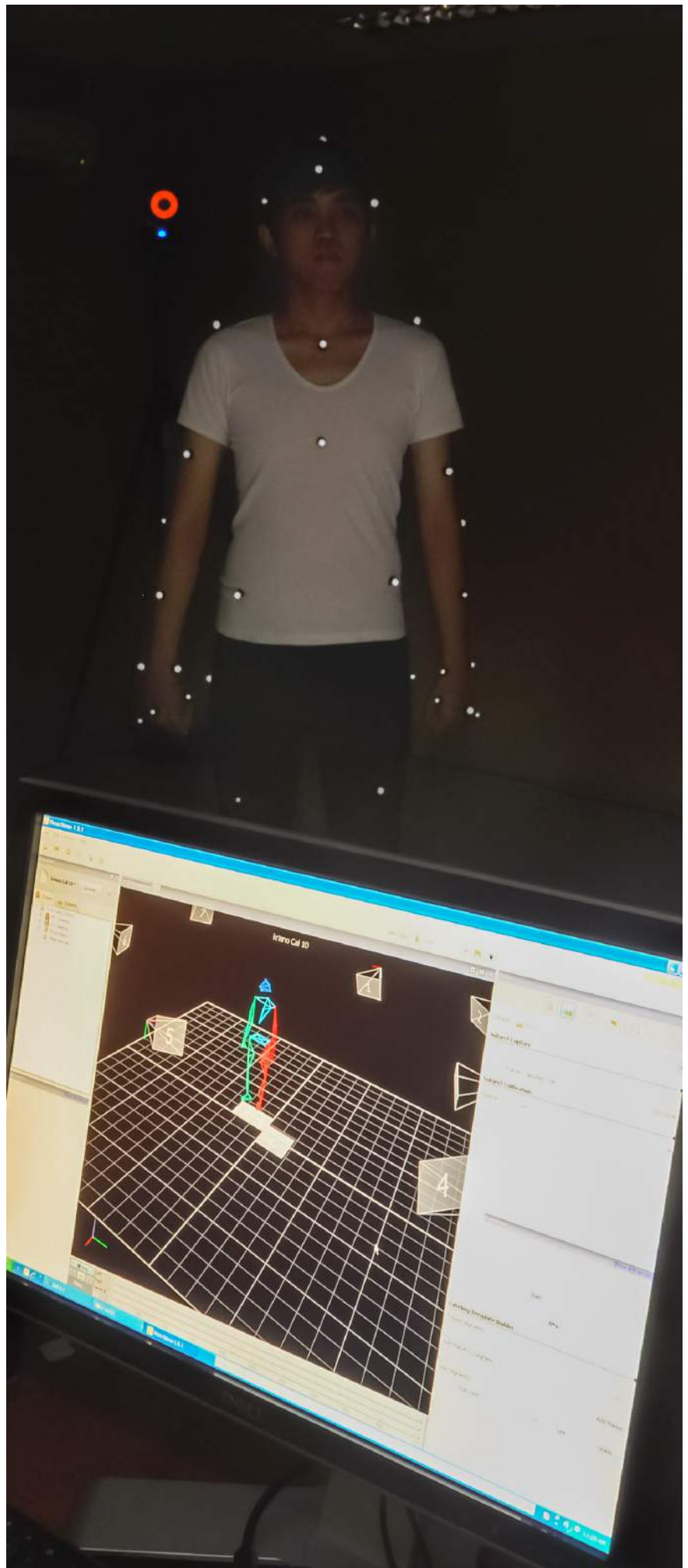
Accreditation : A

The objective of the Mechanical Engineering Study Program is to produce graduates with a systematic and logical thinking pattern while, at the same time, mastering the basic knowledge of engineering which is used to analyze and synthesize characteristics of machinery. In addition, the students are also enriched with knowledge of mechanical equipment design and plan while being able to manage a production process as well as analyze and solve problems scientifically. Graduates are expected to pursue knowledge through research activities.

The educational strategy of the Mechanical Engineering Study Program is the design of a curriculum which explores the areas of design, energy conservation, production process and manufacture and a basic knowledge in operational and industrial management. The Department of Mechanical Engineering is not only nationally accredited with an outstanding A from the National Accreditation Board but also internationally accredited by the ASEAN University Network.

CAREER OUTLOOK

The students of this study program have the options of a future career in automotive industries, petroleum and gas industries, heavy machineries manufacturers, education institutions and research institutions.



METALLURGY AND MATERIALS ENGINEERING

Degree : Sarjana Teknik (Bachelor of Engineering)
Campus Location : Depok Campus
Lecture Schedule : Morning/Daytime
Length of Study : 8 Semesters
Language : Indonesian
Accreditation : A

Metallurgy and Materials Engineering is a discipline that has been present literally for centuries and is concerned with the design of materials and the manufacturing of components from those materials.

Virtually every man-made material is now the subject of study at the Metallurgy and Materials Engineering Department, for example: light alloys for transport applications, foodstuff packaging, functional electronic components and the more exotic ones such as titanium and advanced ceramic used in space exploration, artificial kidney, body implants, superconductor and engineered structural composites. All reflect the dynamic advances in the development of materials and its manufacture.

Metallurgy and Materials Engineering develops and improves the characteristics of those materials – and comprehends the way those materials behave – their properties, strength, toughness, hardness, optical characteristic, corrosion resistance etc. Comprehending what materials can do, or can be made to do, is the first step to inventing and creating new materials and products while making existing materials and products stronger, safer and longer lasting. The Department of Metallurgy and Materials Engineering has been assessed by the Asean University Network (AUN).

CAREER OUTLOOK

As a result of the competitive demand for optimum materials for products, Metallurgy and Materials Engineering graduates now find themselves with an unprecedented range of job opportunities.

This strong demand for qualified people continues to outstrip supply and consequently places graduates in a highly favorable career position.

NAVAL ARCHITECTURE AND MARINE ENGINEERING

Degree : Sarjana Teknik (Bachelor of Engineering)
Campus Location : Depok Campus
Lecture Schedule : Morning/Daytime
Length of Study : 8 Semesters
Language : Indonesian
Accreditation : B

Naval Architecture and Marine Engineering is managed by the Department of Mechanical Engineering, the Faculty of Engineering. Considering that Indonesia is an archipelago, during its initial years the Naval Architecture and Marine Engineering Study Program was established to address the challenge in national demand for young engineers who master naval technology. In its further development, Naval Architecture and Marine Engineering studies was not concerned with technology alone, but also with maritime regulations within a broader scope.

In providing education the Naval Architecture and Marine Engineering Study Program emphasizes on naval design, naval production process, naval repair and maintenance, naval machinery installations and maritime regulations. It also provides basic knowledge on the management of shipbuilding yards.

CAREER OUTLOOK

Students have the opportunity to pursue careers as project managers, project supervisors and designers in naval and off-shore mining industries. Sector of employment can be either in private companies or government institutions.

GENERAL ASSESSMENTS

1. Individual assignments
2. Group projects/assignments
3. Class Attendance
4. Mid-Term Exams
5. Final Exams
6. Internship
7. Undergraduate Thesis

SPECIFIC ENTRY REQUIREMENTS

International applicants are expected to meet the language requirements set by the university and to be able to understand Indonesian Language in order to be admitted to the program since the courses are delivered in the Indonesian language.

INTERNATIONAL PROGRAMS (JOINT DEGREE)

Degree : Joint degree*
Campus Location : Depok Campus & campus of partner university
Lecture Schedule : Morning/Daytime
Length of Study : 8 Semesters
Language of Instruction : English

These programs promote high-quality engineering education through international collaboration where students are designated to study at two institutions. The first-two years are completed at the Faculty of Engineering, while the remaining two years of study are to be conducted at the selected overseas partner university (except for Bachelor of Engineering program for Electrical Engineering at University of Duisburg-Essen).

The international bachelor program in Engineering was established between the Faculty of Engineering and the following partner universities:

Queensland University of Technology, Australia

- *Bachelor of Engineering
 - o Civil Engineering
 - o Mechanical Engineering
 - o Electrical Engineering
- *Bachelor of Design
 - o Architecture

Monash University, Australia

- *Bachelor of Engineering
 - o Metallurgy and Materials Engineering
 - o Chemical Engineering

Curtin University, Australia

- *Bachelor of Engineering
 - o Chemical Engineering
 - o Civil Engineering
 - o Electrical Engineering
 - o Metallurgy and Materials Engineering
- *Bachelor of Applied Science
 - o Architecture

University of Queensland

- *Bachelor of Engineering
 - o Mechanical Engineering
 - o Electrical Engineering
 - o Metallurgy and Materials Engineering (Dual Majors)
 - o Chemical Engineering

University of Sydney

- *Bachelor of Engineering
 - o Electrical Engineering

University of Duisburg Essen, Germany

*Bachelor of Engineering

- o Electrical Engineering
- o Metallurgy and Materials Engineering

*) Upon completion of the second stage of study, the student will be awarded a degree from Universitas Indonesia, Sarjana Teknik (Bachelor of Engineering) or Sarjana Arsitektur (Bachelor of Architecture) and a bachelor degree in engineering/design from the respective partner university overseas.

JOINT DEGREE OPTIONS AND CAREER OUTLOOK

Civil Engineering

Civil engineering centers on planning, design, construction and maintenance of the world's infrastructure. Students can major in environmental engineering in the final year. Civil engineers are employed by governments and private companies to engage in planning, designing, constructing and maintaining structures and facilities including large buildings, roads, bridges, railways, dams, water supply and sewerage systems.

Mechanical Engineering

Mechanical Engineering focuses on mechanics, design, materials, manufacturing, thermo fluids, tribology and engineering management. Many graduates find employment as designers, consultants, or project managers in industries associated with the use of natural resources, including defense, power generation, sugar refineries, oil refineries, mining and manufacturing plants.

Electrical Engineering

This option provides a broad technical education and develops students' fundamental skills in electrical, electronics and computer engineering. Electrical and computer engineers design, install and maintain electrical, electronic, telecommunications and computing systems on behalf of government electricity boards and large manufacturing and engineering companies.

Metallurgy and Materials Engineering

Students will receive a broad technical education while simultaneously developing their fundamental skills in metallurgy and materials engineering.

Chemical Engineering

The Study Program delivers a high-quality basic education in chemical engineering fundamentals to develop skills required to apply these fundamentals to chemical engineering processes and system whilst fostering student's personal development.

Architecture

The program is designed to provide students with strong basic knowledge of architecture and its application, with the ability of applying responsive and environmentally friendly architectural design methods. The graduates are employed in construction industries as architects, interior designers, or supervisors in building construction projects.

GENERAL ASSESSMENTS

For the four semesters that the students must take at the Faculty of Engineering Universitas Indonesia, the students must maintain a minimum GPA of 3.00 and achieve an IELTS score of 6.5 (with no bands lower than 6) for he/she to be deemed eligible to continue the rest four semesters at the partner university.

SPECIFIC ENTRY REQUIREMENTS

International applicants are expected to meet the language requirements set by the university.

MASTER'S DEGREE

ARCHITECTURE

Degree : Magister Arsitektur (Master of Architecture)

Campus Location : Depok Campus

Lecture Schedule : Morning/Daytime

Length of Study : 4 Semesters (40 credits)

Language : Indonesian

Accreditation : A

Our Architecture program is one of the most favored graduate courses in our university. It covers in-depth knowledge in not only today's architectural trend and technology but also possible future innovation in architecture. Issues of architectural engineering related to human interaction and environment will also be considered in any architectural development. There are six specializations that students can choose from; Architectural Theory and History, Architecture Design, Architecture and Sustainability, Property, Urban Design, Urban Housing and Settlement.

CAREER OUTLOOK

Graduates have gone on to pursue careers in design industries as a design entrepreneur, in property companies as an architect or design consultant.

CHEMICAL ENGINEERING

Degree : Magister Teknik (Master of Engineering)

Campus Location : Depok and Salemba Campus

Lecture Schedule : Morning/Daytime for regular class, Afternoon/Evening for special class

Length of Study : 4 Semesters (41 credits)

Language : Indonesian

Accreditation : A

The Master's degree in Chemical Engineering provides an advanced study in the area of chemical engineering with two specializations namely Gas Management and Chemical Engineering. The Department of Chemical Engineering is also well-linked with the industries, allowing students to gain practical experience in Chemical Engineering industry while doing a master's research in the related field corresponding to the industrial application.

CAREER OUTLOOK

Students have the opportunity to pursue careers in industry such as biomanufacturing, chemical manufacturing, consultancy and mining which can be either at private companies or government institutions.

CIVIL ENGINEERING

Degree : Magister Teknik (Master of Engineering)

Campus Location : Depok and Salemba Campus

Lecture Schedule : Morning/Daytime for regular class, Afternoon/Evening for special class

Length of Study : 4 Semesters (40 credits)

Language : Indonesian

Accreditation : A

Our Master's degree in Civil Engineering has a good reputation in Indonesia. There are several concentrations in this field, namely Project Management, Construction Management, Infrastructure Management, Environmental Engineering, Transportation, Structure, Water Resources Management and Geotechnics. These concentrations are offered to provide an in-depth knowledge of technology to our students.