Established in 1991, the German-Malaysian Institute (GMI) is a centre for advanced skills training that offers intensive programmes with hands-on practical and theory in the fields of Production Technology and Industrial Electronics. All GMI programmes are remarkably industrial-based, which are conducted in student-centred learning environment; thus, resulting in an established reputation for its ability to yield highly skilled, versatile and employable graduates.

The GMI is a result of a joint venture project between the Governments of Malaysia and Germany. It is governed by 10-member Board of Directors comprising representatives from various industries as well as the government agencies. This institution was set up as a Company Limited by Guarantee, where the founders are Majlis Amanah Rakyat (MARA) and the Malaysian German Chamber of Commerce & Industry (MGCC). GMI had her first student enrolment in 1992 and now is operating at the 75 acres campus in Kajang since 2008.

GMI main objective is to produce holistic graduates in various fields of manufacturing and engineering who meet the standards of Malaysian industrial sectors. Throughout more than 20 years of operation, GMI has proven successful in developing highly competent graduates in various fields namely product design manufacturing, mould technology, tool & die technology, high precision machining, process control, instrumentation, automation systems, network systems and industrial communications.

By implementing the blended learning methodology in the student centred learning and combining theoretical know-why with practical know-how in their fields of specialization, GMI graduates have the essential characteristics that have noticeably set them apart from the others in the industrial sectors. It is no surprise to see these very high calibre technologists working in numerous distinguished companies throughout Malaysia.
Industrial Electronics Department offers engineering technology programmes that support multi-sectors for Malaysian industry within a spectrum of areas from oil and gas, alternative technology, telecommunications, network and wireless technology, facility services and industrial automation.

Realizing the global trends in manufacturing and services due to the growing number of applications, various types of technology such as cloud computing, elements of sustainability, microelectromechanical system (MEMS) and sensors, machine vision (MV) technology, robotics and data acquisition are embedded in GMI Diploma programmes to ensure students are kept abreast with the latest technology.

All training activities and Final Year projects are carried out in accordance to industrial standards and practices where students conduct research, design, install, test & commission, demonstrate and present industrial-based projects.
MECHATRONICS
JPT/BPP(K) 1000-600/B293(29)(KR 11557)(A 5001) 07/2015

COURSE BRIEF

Mechatronics is a three-year diploma programme that focuses on the synergistic integration of physical system with information technology and complex decision making in the design, manufacturing and operation of industrial automation and processes. This programme of practical-oriented approach provides solid foundation and the integration of the physical elements namely electrical, electronics and mechanical with information technology such as programming and networking.

The first three semesters cover the foundation training in electrical, electronics, computer applications, computer aided design (CAD), and even machining. These knowledge and skills progress to the next three semesters where the major elements in Mechatronics such as Programmable Logic Controller (PLC), sensors, controls, automation, machine assembly, robotics and computer integrated manufacturing (CIM) are introduced to the students.

SCOPE OF WORK

Prospective graduates will have the knowledge and skills in the installation, commission and maintenance of any automation or mechatronics system in most manufacturing sectors such as food & beverages, packaging, electronics, automotive, etc. They are also capable of supporting the development and engineering of those systems.

JOB OPPORTUNITIES

Automation and Application Technical Assistant, Mechatronic Assistant Engineer, Automation Technical Specialist, Automation System Designer, Automation Maintenance Specialist.

YEAR 1

Semester 1
Electrical Principles | Technical Drawing & CAD | Computer & Programming | Pre-Calculus | Presentation & Communication Skills | Engineering Science | German Language 1

Semester 2
Electronics | Electronics Workshop | Technical English and Communication 1 | Calculus | Engineering Materials | German Language 2 | *Bahasa Kebangsaan A | Pengajian Malaysia | Basic Metal Work

YEAR 2

Semester 3

Semester 4
Control System | Programmable Logic Controllers | Electrical Installation | Basic Turning & Milling | Machine Design | Industrial Management | MEC Project Proposal | Power Electronics

YEAR 3

Semester 5
MEC Final Project | Computer Integrated Manufacturing | Industrial Robotics | Engineering Metrology | Entrepreneurship | Microcontroller

Semester 6
Industrial Training

"German engineering presents quality, reliability and accuracy, and GMI is a brilliant institution in German advanced technology."

Dr. Shajahan Bin Maldin
(Graduated in 1997)
Currently Senior Lecturer at Universiti Teknikal Melaka
PROCESS INSTRUMENTATION & CONTROL

JPT/BPP(K) 1000-600/B293(29)(KR 11556)(A 5002) 07/2015

COURSE BRIEF

Process Instrumentation & Control is a three-year diploma programme that provides holistic skills and knowledge in complex hybrid systems that are widely used in the industries. These modern systems integrate electrical equipment, mechanical elements, instrumentation and computers using the latest industrial communications protocols to monitor and control processes.

This course covers solid fundamentals training in the first three semesters in the area of electrical, electronics, mechanical and computer. The competencies gained in Semester 4, 5 and 6 will enable the students to comprehend process control strategy, process instrumentations, Programmable Logic Controller (PLC), pneumatics, electrical machines, calibration sensor tuning & actuators and also the Supervisory Control And Data Acquisition (SCADA), Distributed Control System (DCS) technology. Basic communications, programming, power electronics and drive technology are also offered to the students in moulding them to be more adaptable to changes in the process control and automation working environment.

SCOPE OF WORK

Prospective graduates will be able to perform tasks pertaining to repairing, maintaining, calibrating, adjusting and installation of industrial measuring and controlling instrumentation. They can be employed by pulp and paper processing companies, petrochemical and natural gas companies, pharmaceutical and other manufacturing companies and industrial instrument servicing establishments.

JOB OPPORTUNITIES

Instrumentation Technical Assistant, Control System Assistant Engineer, Calibration Technical Assistant, Maintenance Technicians, Production Executive, Field Specialist Technician, Application Specialist, Plant Assistant Engineer, Quality Assurance Executive.

YEAR 1

Semester 1
Electrical Principles | Technical Drawing & CAD | Computer & Programming | Pre-Calculus | Presentation & Communication Skills | Engineering Science | German Language 1

Semester 2
Electronics | Digital Systems | Electronics Workshop | Technical English & Communication 1 | Calculus | German Language 2 | *Bahasa Kebangsaan A | Pengajian Malaysia

YEAR 2

Semester 3

Semester 4

YEAR 3

Semester 5
PIC Final Project | Distributed Control System & Applications | Industrial Management | Power Electronics | Basic Metal Work & Welding | Entrepreneurship

Semester 6
Industrial Training

*optional

EMERSON

Process Management

GMI-EMERSON Process Management Technology Centre for Distributed Control System
COURSE BRIEF

Electronics & Information Technology is a three-year diploma programme which equips students with broad-based technical competency needed in modern information technology (IT). It has been uniquely designed by incorporating application of computers & telecommunications and electronics engineering elements.

In the first three semesters, students will learn the principles and practical aspects of electrical and electronics including analogue and digital, computer programming, sensor, control systems and programmable logic controller (PLC).

In Semesters 4, 5, & 6 students will acquire more in-depth knowledge and practical application of microprocessor, interface design, microcontroller systems, local area network, radio frequency (RF), wired and wireless telephony, telecommunications system, data communications system and network administration & maintenance. In addition, the programme also integrates communicative and thinking skills, project management, entrepreneurship, learning and interpersonal skills so that the students are prepared to face the rapid changes of technology especially in IT.

SCOPE OF WORK

Prospective graduates will be able to contribute in various fields within the electronics industry, such as hardware and software design & development, maintenance, production, quality assurance and technical support of any electronic application, telecommunications and computer network.

JOB OPPORTUNITIES

Electronics Assistant Engineer,
Computer Assistant Engineer,
Communications Assistant Engineer,
Database Administrator, Computer Network Administrator, Computer Network Assistant Engineer, Technical Support Consumer Electronics.

YEAR 1

**Semester 1**
Electrical Principles | Technical Drawing & CAD | Computer & Programming
Pre-Calculus | Presentation & Communication Skills | Engineering Science | German Language 1

**Semester 2**
Electronics | Digital Systems | Data Management | Technical English & Communication 1 | Calculus | German Language 2 | *Bahasa Kebangsaan A | Pengajian Malaysia

YEAR 2

**Semester 3**

**Semester 4**
Programming in Visual Basic | Communication Principles | Microprocessor | Microcontroller | Entrepreneurship | ECS Project Proposal Programming in JAVA | Network Design & Administration

YEAR 3

**Semester 5**
Computer Interfacing Technology | ECS Final Project | Data Communication Systems | Broadband Technology | Industrial Management

**Semester 6**
Industrial Training

*optional*
COURSE BRIEF

Network Security is a three-year diploma programme that concentrates on secure communication within computers in the network. This programme offers students the experience to work with the most advanced and latest software coupled with hi-tech hardware in designing, protecting and evaluating the security of a network.

The first year is the foundation year where students are introduced to the basic understanding of the computer network. Throughout the second year, they will acquire the techniques and skills on designing and developing secure network architecture with the integration of secure programming practices. Evaluating and testing activities on the developed network and software are carried out later in the final year. The programme also integrates information security ethics, communication and thinking skills, project management entrepreneurship, and learning skills so that the students are prepared to face the rapid changes of technology especially in secured communications network and IT.

SCOPE OF WORK

Prospective graduates will be able to install, customize and test network devices, manage network services, produce technical reports for security assessments, provide recommendations and solutions for networking issues as well as to participate in the development of networking systems and security policy enforcement in both local and wide area networks.

JOB OPPORTUNITIES

Network Assistant Engineer, Network Security Assistant Engineer, Network Assistant Analyst, Assistant Computer Network Design, Assistant Security Consultant, Database Administrator, Computer System & Network Administrator.

YEAR 1

Semester 1
- Electrical & Electronics
- Computer & Programming
- Network Security Ethics
- Pre-Calculus
- Presentation & Communication Skills
- Engineering Science
- German Language 1

Semester 2
- Network Fundamental
- Digital Systems
- Secured Object Oriented Programming
- Technical English & Communication 1
- *BahasaKebangsaan A | Pengajian Malaysia
- Calculus
- German Language 2

YEAR 2

Semester 3
- Network Programming
- Operating Systems Administration 1
- Database Management System
- Basic Communication Systems
- Routing Protocol & Concepts
- *Further Calculus
- Technical English & Communication 2
- Co-Curriculum Management
- Dinamika Islam Di Malaysia
- Etika & Moral Masyarakat Malaysia

Semester 4
- Web Programming
- Wireless Network & Security
- Operating Systems Administration 2
- Network Perimeter Security
- Basic Computer Forensic
- Switching Technology
- Intrusion Detection & Prevention
- NWS Project Proposal

YEAR 3

Semester 5
- WAN Technology
- Industrial Management
- Network Management & Monitoring Systems
- Network Vulnerability Assessment
- Entrepreneurship
- NWS Final Project

Semester 6
- Industrial Training
  *optional

GMI-CISCO Training Academy Technology Centre for Computing & Network
SUSTAINABLE ENERGY & POWER DISTRIBUTION

COURSE BRIEF

Sustainable energy and power distribution is a three-year training programme focussing on designing and installation, testing and commissioning, and repair & maintenance works related to renewable energy such as solar, wind and biomass including the power distribution systems. This programme caters to the demands of technologies in green energies and electrical power for applications and services in buildings, industry and transport.

For the first three semesters, students will learn the principles and practical aspects of electrical and electronic system including the power electronics, control systems, power management, sensor technology and programmable logic controller. Within the two subsequent semesters, students will carry-out activities pertaining to design and installation of the photovoltaic system; primary design and kinetic power of the wind turbine generator; and extraction of energy. Besides that, economic aspects, energy planning, environmental impact and trends will be emphasized throughout the programme.

Students will have to develop a final year project that is closely related to the green energy and its application.

SCOPE OF WORK

Prospective graduates can contribute in various fields within the power generation and electrical distribution systems. They are capable of designing, installing, testing, commissioning, troubleshooting and repairing of the renewable energy sources, management of power distribution system, and maintaining the optimal performance of renewable energy.

JOB OPPORTUNITIES


YEAR 1

Semester 1
- Electrical Principles | Technical Drawing & CAD | Computer & Programming | Pre-Calculus | Presentation & Communication Skills | Engineering Science | German Language

Semester 2
- Calculus | German Language 2 | Technical English and Communication 1 | Electronics | Digital Systems | Electronics Workshop | Sustainable Energy Technology & System | *Bahasa Kebangsaan A | Pengajian Malaysia

YEAR 2

Semester 3

Semester 4

YEAR 3

Semester 5
- Industrial Management | Entrepreneurship | SPD Final Year Project | Power Management & Analysis | Fieldbus Technology | Electrical Instrument & Devices

Semester 6
- Industrial Training

*optional
INDUSTRIAL PLANT MAINTENANCE

JPT/BPP(K) 1000-600/B216(35)(N/520/4/0041)(MQA/PA2040) 02/2018

COURSE BRIEF

Industrial Plant Maintenance is a three-year programme focussing on maintenance and repair activity to keep a manufacturing plant running which includes preventive & predictive maintenance, mechanical maintenance, and instrumentation & controls maintenance.

The programme incorporates both theory and hands-on approach for plant maintenance and services including dismantling, re-assembling, modification, aligning, calibrating, piping, parts replacement, process troubleshooting and maintenance management.

During the first three semesters, the students will learn the foundation of plant safety, electrical, mechanical and computer skills. Within the two subsequent semesters, the students will acquire knowledge and skills in the specialization courses pertaining to industrial plant system such as rotating equipment & applications, system diagnostic and rectification, control and instrumentation, and reverse engineering approach. The final year project to be carried out is closely related to the integration of automation in the industrial plant system.

SCOPE OF WORK

Prospective graduates will be able to carry out task related to troubleshooting, servicing, repairing, installing and testing of integrated automation plant system in most process plants such as refineries, petrochemical, palm oil, paper and pulp and also manufacturing sectors.

JOB OPPORTUNITIES

Plant Specialist, Plant Technical Specialist, Plant Maintenance Technical Assistant, Maintenance & Service Assistant Engineer, Maintenance Technician, Instrument Technician, Maintenance Supervisor, Production Planner, Quality Assurance Executive, R&D Personnel, Technical Sales Executive, Assistant Application Engineer or Engineering Assistant.
Production Technology Department organizes intensive engineering technology diploma programmes which cover prominent areas in machining and manufacturing with high quality industrial standards of training. Achieving such standards require industrial experienced and skilled personnel, and investment in modern machineries and equipment to accommodate design and manufacturing activities.

Learning and training for manufacturing is a class of its own here at GMI by making available authentic industrial equipment and machineries plus technologies such as CNC Milling and Turning, High Speed Machining, CNC Tool & Cutter Grinder, EDM Die Sinking, CNC Wire Cut, Metal Stamping machines and Injection-Moulding machines.

The final year projects are carried out in accordance to the industrial conditions and manufacturing processes, such as metal stamping and plastic injection moulding, including product design and development. Students will be involved in design, machining, assembly and testing activities, hence building core competencies in their technical, social and learning skills.
COURSE BRIEF

Tool & Die Technology is a three-year diploma programme that focuses on aspects of manufacturing stamping dies process and various machine tool operation. It concentrates on modern fabrication activities such as conventional and Computer Numerical Control (CNC) machining, tool design and construction with Computer Aided Design and Machining (CAD/CAM). Metrology and maintaining dies.

The first year is the foundation year where students undergo fundamental training, which includes machining, blueprint reading, material science and metrology. In the second and third year, advanced theory and practical in stamping, die design and development, die maintenance and quality control are taught as their specialization. Students will also carry out final year project in accordance to industrial practice and standard.

SCOPE OF WORK

Prospective graduates will handle various machine tools, fabricate and troubleshoot dies, operate specialized machines, tools, jigs and fixtures and designing die using Computer Aided Design (CAD). Other than design and machining tasks, graduates are also familiar with machining properties, such as material hardness, cutting tools and a wide variety of metals and alloys.

JOB OPPORTUNITIES

Tooling Designer, Tool Maker, Product Designer, Production Planner, Machinist, Quality Assurance Executive, Sales Executive, Research and Development Personnel.

YEAR 1

Semester 1
- Machine Tool Operation
- Pre-Calculus
- Manufacturing Processes
- Basic Cutting & Joining Process
- Presentation & Communication Skills
- Engineering Metrology
- Engineering Drawing

Semester 2
- Technical English & Communication 1
- Workshop Practice
- Calculus
- Engineering Science
- Engineering Materials
- Welding
- Dinamika Islam Di Malaysia
- Etika & Moral Masyarakat
- Malaysia
- Computer Aided Design

YEAR 2

Semester 3
- CNC Milling & Turning Technology
- Technical English & Communication 2
- German Language 1
- Engineering Mechanics
- Further Calculus
- Mould & Die Technology
- Co-Curriculum Management
- Die Design
- Press Tool Manufacturing

Semester 4
- CAD CAM 2 & 3 Axis
- EDM Technology
- German Language 2
- Industrial Management
- Pengajian Malaysia
- TDT Project Proposal
- Die Maintenance
- Advanced Die Design

YEAR 3

Semester 5
- Electrical & Electronics for Industry
- Cylindrical & Profile Grinding
- Pneumatica & Hydraulics
- Entrepreneurship
- Bahasa Kebangsaan A
- TDT Final Project
- Sheet Metal Forming Analysis

Semester 6
- Industrial Training
- *optional

“... We are so blessed to be given the opportunity to study at GMI and hope that GMI will continue to excel in developing future generations.
Muhammad Hanafi Mohd Ghazali
(Graduated in 2009)
Currently Production Manager at family business Perusahaan Azan Sdn Bhd (MARA entrepreneur) with his sister, Jasmine Mohd Ghazali.
(Graduated in 2013)
COURSE BRIEF

The three-year Mould Technology diploma programme focuses on the aspects of plastic injection process and machine tools in order to produce mould that is precision-machined. This requires modern fabrication activities such as conventional, Computer Numerical Control (CNC) and high speed precision machining. As for the mould design and construction, Computer Aided Design (CAD) suites are used whereas Computer Aided Machining (CAM) is utilised for programming and CNC machining.

Student will acquire fundamental training in the first year which includes machining, blueprint reading, material science and metrology. In the second and third year, advanced theory and practical in polymers, plastic injection moulds construction and design, material flow simulation for optimization of plastic component design, machine operation, mould maintenance and quality control are taught as their specialization. Students will also carry out final year project in accordance to industrial practice and standards.

SCOPE OF WORK

Prospective graduates will be able to use various machine tools, fabricate and troubleshoot dies, operate specialized machines, tools, jigs and fixtures. They are also required to design mould using CAD suites and CAM in order to produce complex and highly finished machined surfaces. Other than design and machining tasks, graduates are familiar with machining properties, such as material hardness, cutting tools and a wide variety of metals and alloys suitable for mould inserts and cavities.

JOB OPPORTUNITIES

Mould Maker, Tooling Designer, Product Designer, Production Planner, CNC Programmer, Machinist, Quality Assurance Executive, Sales Executive, Research and Development Personnel.

YEAR 1

Semester 1
- Machine Tool Operation
- Pre-Calculus
- Manufacturing Processes
- Basic Cutting & Joining Process
- Presentation & Communication Skills
- Engineering Metrology
- Engineering Drawing

Semester 2
- Technical English & Communication 1
- Workshop Practice
- Calculus
- Engineering Science
- Engineering Materials
- Welding
- Dinamika Islam Di Malaysia
- Etika & Moral Masyarakat Malaysia
- Computer Aided Design

YEAR 2

Semester 3
- CNC Milling & Turning Technology
- Technical English & Communication 2
- German Language 1
- Engineering Mechanics
- "Further Calculus" Mould Manufacturing
- Mould Design
- Mould & Die Technology
- Co-Curriculum Management

Semester 4
- CAD CAM 2 & 3 Axis
- EDM Technology
- German Language 2
- Industrial Management
- Mould Maintenance
- Plastic Product Analysis
- Pengajian Malaysia
- MOT Project Proposal

YEAR 3

Semester 5
- Electrical & Electronics for Industry
- Cylindrical & Profile Grinding
- Pneumatics & Hydraulics
- Entrepreneurship
- Prototype Technology & Applications
- "Bahasa Kebangsaan A"
- MOT Final Project

Semester 6
- Industrial Training

*optional

GMI-Carl Zeiss Technology Centre for Metrology Competence of High Precision
PRODUCT DESIGN & MANUFACTURING
JPT/BPP(K) 1000-600/B293(43)(KR 7165)(A 7165) 07/2016

COURSE BRIEF

Product Design & Manufacturing is a three-year diploma programme that focuses on product design concepts, presentation of new product ideas and advanced manufacturing applications for production.

Intensive exposure on material science, basic machining processes and computer-aided design and product design fundamentals during the first year will enable students to have a strong technical foundation. In the following two years of training, areas of specialization in the program will be facilitated by a wide range of technology disciplines namely rapid prototyping, ergonomics and design, product design for manufacturing, and advanced manufacturing. Students are required to propose and produce new and innovative product design that conform to industrial standards or practices during their final year project.

SCOPE OF WORK

Prospective graduates will be able to apply a range of creative design and craft, engineering skills and processes, to design and shape products for variety of applications in industrial, commercial and domestic products or appliances.

JOB OPPORTUNITIES

Product Designer, CAD Application Assistant Engineer, Product and Reliability Assistant Engineer, Tooling Designer, Quality Assurance Executive, Technical Sales Executive, Research and Development Personnel.

YEAR 1

Semester 1

Semester 2

YEAR 2

Semester 3

Semester 4
Ergonomics | Digital Design & Styling | German Language 2 | Industrial Management | Product Development & Marketing | Prototype Technology & Applications | Pengajian Malaysia | PDM Project Proposal | Sheet Metal Design & Tooling

YEAR 3

Semester 5
CNC Programming & CAD CAM | Reverse Engineering | Engineering Analysis | Design for Manufacture & Assembly | Pneumatics & Hydraulics | Entrepreneurship | * Bahasa Kebangsaan A | PDM Final Project

Semester 6
Industrial Training
*optional

GMI has the most advanced training facilities as compared to others. GMI has all the necessary machineries and materials required for students. The institution is at par and sometimes even better than what industries have out there.

Luksman Rao Halababu (Graduated in 2012)
Best Overall Student of Production Technology Department
COURSE BRIEF

CNC (Computer Numerical Control) Precision Technology is a three-year diploma programme that focuses on CNC technology with emphasis on precision machining. This program offers students the experience on working with modern machine tools and equipment in order to ensure high quality product. The first year training will provide students with basic cutting process, conventional machining such as milling, turning and grinding and up to 3 Axis CAD/CAM (Computer Aided Design Computer Aided Machining) and 3 Axis CNC Machining.

In the specialization areas, students will acquire the high end and application of 4 Axis CNC and 5 Axis CNC technologies, CAD/CAM, and employ jigs and fixtures, designed for automated CNC operations. A strong grasp in material science, cutting tools, manufacturing processes and machine maintenance shall equip students with competency in every area of precision machining. In the final year project, students are challenged to produce product in accordance to industrial applications.

SCOPE OF WORK

Prospective graduates will be able to analyse blueprints and identify the appropriate manufacturing process for production of parts. Graduates will be involved in determining and performing procedures for programming, preparation of parts of tooling and machine setup; and will operate and maintain CNC machine tools to produce precision parts in compliance with safety practices, and verify the output with proper quality assurance methods.

JOB OPPORTUNITIES

CNC Machinist, CAM Programmer, Production Executive, Maintenance and Service Technician, Quality Assurance Executive, Technical Sales Executive, Research and Development Personnel.

YEAR 1

Semester 1

Semester 2

YEAR 2

Semester 3

Semester 4

YEAR 3

Semester 5

Semester 6
- Industrial Training

*optional
COURSE BRIEF

Sheet Metal Fabrication and Product Development diploma programme covers the whole spectrum of sheet metal product development which includes product conceptualization, visualization; design of product, prototyping, fabrication of product, finishing and assembly based on industrial quality and standard.

During the 3 years of training, the students will learn product sketching, conceptualization and visualization, product design using latest 3 Dimension CAD software, part modelling and programming via CAD CAM (Computer Aided Design Computer Aided Machining), fabrication of parts using latest technology machineries such as 2D & 3D CNC (Computer Numerical Control) laser cutting, CNC water jet, CNC punching and bending and 3D sheet metal forming. Material treatment and finishing technology is also an essential area to be covered for quality finishing before retailing process.

SCOPE OF WORK

Prospective graduates will be able to perform in the development of new product which includes concept design, fabrication and finished product. Graduates will also be involved in designing, fabricating, planning and monitoring the development of sheet metal product.

JOB OPPORTUNITIES

Production Technician, Product Designer, CAD-CAM Programmer, CNC Specialist (CNC punching, bending, laser cutting, pipe bending, sheet metal forming, water jet, etc.), Production Supervisor, Production Planner, Quality Assurance Executive, R&D Personnel, Technical Sales Executive, Assistant Application Engineer or Engineering Assistant.

YEAR 1

Semester 1

Semester 2

YEAR 2

Semester 3
CAD CAM (Sheet Metal) | Design Conceptualization & Visualization | Technical English & Communication 2 | German Language 1 | Engineering Mechanics | *Further Calculus | Co-Curriculum Management | Sheet Metal Fabrication | Sheet Metal Working Technology | Sheet Metal Product Design

Semester 4
Design for Manufacture & Assembly | German Language 2 | Industrial Management | Pengajian Malaysia | SMT Project Proposal | CNC 2D & 3D Laser Cutting Technology | CNC Punching & Bending Technology | Sheet Metal Forming & Development Technology

YEAR 3

Semester 5

Semester 6
Industrial Training

*optional
MANUFACTURING SYSTEM

COURSE BRIEF

This 3-year diploma programme covers a broad range of manufacturing systems through a fully automated advanced manufacturing; material transfer through conveyors and robots; manufacturing processes without manual alignment; fully integrated gantry system for automatic loading and unloading; flexibility of jigs and fixture selections; automatic storage and virtual control machines. The specialization of this programme is the intertwining of practical automations, electronics and manufacturing processes with Flexible Manufacturing System (FMS) and Computer Integrated Manufacturing (CIM).

At the end of the programme, the students will be able to create and operate a manufacturing system which includes equipment selection, physically arranging the equipment, work design (manual and automatic), standardization, design of material and information flow, etc.

SCOPE OF WORK

Prospective graduates will be able to perform task pertaining to handling of various machine tools, methods and processes for manufacturing design process; and the operation of specialized machines, jigs and fixtures.

JOB OPPORTUNITIES

Manufacturing System Technical Assistant, Manufacturing System Assistant Engineer, Technical Designer, Machine Maintenance, Technical Supervisor, Project Designer, Production Assistant Engineer/Technician, Manufacturing Systems Assistant Engineer/Technician, Quality Control Executive, Maintenance Assistant Engineer/Technician, Quality Assurance Executive, R&D Personnel.

YEAR 1

Semester 1

Semester 2

YEAR 2

Semester 3

Semester 4

YEAR 3

Semester 5
Engineering Analysis | Robust Industrial Design | Entrepreneurship | *Bahasa Kebangsaan A | Production Planning Control | MSD Final Project

Semester 6
Industrial Training

*optional
ENTRY REQUIREMENTS:
Minimum Entry Requirements:

**SPM/SPMV**
- 3 credits
  - Mathematics / Add. Mathematics
  - 1 Science / Technical / Vocational subject
  - 1 other subject
  - Pass in English Language

**Technical Certificate**
- IKM / ITI / Polytechnic / Other Institutions
- SKM Level 3
- 1 credit in SPM in any subject

**PRE-DIPLOMA/MATRICULATION**
2.0 CGPA
- SPM at least 3 credits (Bahasa Melayu, 2 other subjects, pass in English Language)

**STPM**
1 principal
- Pass 3 subjects in SPM (Mathematics, English Language and 1 other subject)

**OTHER REQUIREMENTS**
1. Malaysian citizen
2. Must not be less than 18 years old upon application
3. No physical disabilities and must not be color blind
4. Pass medical check-up and urine test

**STUDY LENGTH**
Minimum duration: 3 years (6 semesters)

**INTAKE**
January & July

**FEES**
- RM4,000.00 per semester
- RM100.00 per semester

**FINANCIAL ASSISTANCE**
1. Study loan by MARA for qualified Bumiputra candidates*
2. Study loan by PTPTN for qualified candidates.
3. Sponsorship by industries (students will have to sign a bondage agreement with the company if they accept the sponsorship).

* Credit in Bahasa Melayu

**THE PATHWAY**
- Sijil Pelajaran Malaysia (SPM) or Equivalent
- Unified Examination Certificate (UEC)
- Technical & Vocational Certificate
- Sijil Kemahiran Malaysia (SKM 3)

- World of Work (Employment)

- Diploma @ GMI

- Bachelor of Engineering/Engineering Technology (Local Universities)
- Bachelor of Engineering Germany, United Kingdom Australia

16
GERMAN A-LEVEL PREPARATORY PROGRAMME (GAPP)

Students enrolled in programme GAPP will undergo a 20-month preparatory program at the German-Malaysian Institute, and also 6-month intensive German Language at various language centers in Germany before they are accepted for enrolment at the University there.

Study Outline:

1. GCE A-Level in Collaboration with UCLES, UK
   1. Mathematics
   2. Physics
   3. Chemistry
   4. German Language

2. TestDaF
   A1-B1 conducted in GMI
   B2 – TestDAF conducted in Germany

3. GMI
   16-week Pre-Study Practical Experience

GERmany...
Renowned for its technological achievements. Famous for its stunning artistic accomplishments. Proud of its diverse and esteemed higher education system. Land of many opportunities.

For these reasons, the German A-Level Preparatory Programme (GAPP) was established at the German-Malaysian Institute in 2001 to increase the interest of young Malaysians to further their study in the fields of engineering.

The Federal Republic of Germany is one of the major industrial countries offering the best engineering education that promotes lifelong learning embedded in their education system. The highly skilled and motivated workforce has propelled Germany to its present position among the world's leading industrial nation.

GAPP ENTRY REQUIREMENT

The admission is subjected to a selection process and availability of study placement.

Scholarship is available for eligible applicant with the grades below:

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<tr>
<th>Subject</th>
<th>Sponsored Candidate</th>
<th>Private Candidate</th>
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<td>B</td>
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<tr>
<td>English</td>
<td>A</td>
<td>B</td>
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<td>History/Other Subject</td>
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"I am keen to do it in Germany and start it at GMI as the German offers precision engineering fields. They produced practical engineers that are able to do the work. We are not theory engineers. This distinguish us from other engineers."

Mohamad Najib Muhammad Noor
(GMI GAPP Student Year 2005)
Software Engineer with Multitest Electronics System in Penang
OUR CHALLENGES.

3 APPLICATION & STUDY FEE

Students who wish to apply for GAPP may obtain the form from:
- GMI
- Online application @www.jpa.gov.my (Click tajaan MARA or tajaan JPA for badan penajah)

Fees: RM28,000.00 for 4 semesters*
*subject to change

4 UNIVERSITY PLACEMENT IN GERMANY

The University of Applied Science (UAS) is a higher institution whose degree offers a greater practical-focused courses with very much application-based that produces better qualified workforce with academic background. UAS professors and lecturers generally have practical career experience in addition to their academic qualities that sustain the quality of education and training.

Qualified students after completing the program at GMI and also language center will apply to study at the University of Applied Sciences (UAS) or Hochschule in the States of Bavaria, Baden-Württemberg, Hessen, North-Rhine Westphalia, Saxony and other states.

5 6-MONTH PROGRAMME AT LANGUAGE CENTERS IN GERMANY

- German Language from B2 - TestDAF
- Physics and Math in German language
- Intercultural and Study Skills Workshop
- Advice on study placement
- Technical German
- Internship (depends on placement)

Our Commitment

We at GMI are committed to nurture these students to become not only high academic achievers but to produce holistic students having the right attitude in their learning and later be competitive in the world of work. This demands personnel who are versatile, independent, and autonomous. Most importantly, our graduates must be lifelong learners.

Please log on to www.gmi.edu.my for further details on GAPP.
ENTRY REQUIREMENT FOR INTERNATIONAL STUDENT

* GCE O-Level with 3 credits:
  * Mathematics
  * Science
  * 1 other subject
* Pass in English
* At least 500 marks for TOEFL or band of 5.0 for IELTS or equivalent

INTERNATIONAL STUDENT SUPPORT SERVICES.

* Admission Process
* Student Pass Application
* Renewal of Student Pass/Visa
* Airport Reception Service
* Medical Screening
* Orientation Program
* Other support services are as per offered for local students