



**SEGi**  
Group of  
Colleges



**LET'S BUILD  
NEW ROADS FOR  
TOMORROW**

**Engineering**

**#bestinyou**

# DISCOVER THE ENGINEER IN YOU

The Faculty of Engineering & The Built Environment focuses on a student-centered environment, allowing student-teacher interaction in Malaysia and our partner universities worldwide. You have access to work in advanced laboratories and workshops with essential tools to develop your engineering skills. The programmes are delivered using applied methodologies and state-of-the-art engineering facilities.

The Built Environment covers a variety of disciplines such as architecture, construction management, quantity surveying, environmental design and planning. You get to address professional, industrial and consultancy activities while exploring the relationship between buildings/cities and individuals, and communities and organisations that inhabit them, ensuring you have all the advantages and opportunities to develop a successful career in the engineering field.



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## WIDE RANGE OF QUALITY COURSES

### Tailored to your Passion

Programmes offered at SEGi Group of Colleges, from foundation to post graduate level, are well-rounded, meticulously planned and are equivalent to other prestigious international universities.



## REAL-WORLD EXPERIENCE

### Empower today, Lead tomorrow

SEGi Group of Colleges partners with a plethora of valued corporate partners to ensure SEGi students obtain the experience needed to be workplace ready upon graduation.



## WORLD-CLASS ACADEMIC LEADERS

### Dedicated academicians, Great mentors

With strong industry connections, our world-class faculty members are passionate in teaching and coaching students to realise their full potentials and excel in their chosen fields.

# 6 REASONS TO CHOOSE SEGi



## TRUSTED & RECOGNISED

### Continuing the legacy since 1977

Established in 1977, SEGi has undergone significant growth in providing quality education to willing minds and talents, making it one of the most established, trusted and recognised education institutions in Malaysia.



## FUTURE SKILLS FOCUSED

### Shine & stand out from the crowd

The SEGi future skills Programme provides opportunities to enhance students' learning experiences. With more than 100 workshops and seminars to be explored, SEGi lets you go beyond the classroom to enhance your skills and secure your future.



## CAREER READY FIRST CLASS GRADUATES

### Top of the class

93% of SEGi graduates are employed or pursuing further studies within 6 months of graduation.\*

\*Employability tracer study in comparison with MOHE Graduate tracer study

# SEGi GROUP OF COLLEGES

First established in 1977 as Systematic College, SEGi Group of Colleges has undergone significant growth, strengthening the quality of its wide range of programmes from foundation to post graduate.

SEGi Group of Colleges is dedicated to provide students the opportunity to earn a foreign degree in Malaysia with its world renowned university partners. In addition, SEGi also has strong presence of international students who seek quality, globally-recognised education in Malaysia.

With the strong heritage in catering to working professionals, SEGi Group of Colleges offer an array of in-demand programmes to those who wish to enhance their careers by obtaining higher qualifications, such as degree programmes, MBA and other professional courses, in a flexible manner.



## SEGi COLLEGE SUBANG JAYA

The campus is strategically located in the Klang Valley, just next to The Summit shopping complex. One of the pioneers of Early Childhood Education, the campus is also most sought-after for its Business programmes. Students of this college also have the convenience of public transport. The college is within 5 minutes walk to the USJ 7 Light Rapid Transit (LRT) and Bus Rapid Transit (BRT) stations.

The campus is the winner of the highest Six-Star (Outstanding) MyQuest award for three consecutive years from 2012 to 2017.



## SEGi COLLEGE KUALA LUMPUR

The campus is located in the heart of Kuala Lumpur and is only 240m from the Masjid Jamek LRT Station. The campus is supported by experienced and reputable academicians offering knowledge and training in Business & Accounting, Allied Health Sciences, as well as Hospitality & Tourism fields.

Apart from being a Centre of Excellence for Business and Accounting as well as Hospitality and Tourism, the campus has received the Five-Star (Excellent) award from MyQuest 2016/2017 for 'International Students' category.



## SEGi COLLEGE PENANG

The campus is located in Green Hall, a unique coastal location, which provides an ideal learning lifestyle with affordable cost of living. The college offers a wide range of programmes in the fields of Business & Accounting, Early Childhood Education, Information Technology and American Degree Program (ADP).

The campus was awarded the highest Six-Star (Outstanding) award by MyQuest 2016/17 for the 'Private Colleges' category.



## SEGi COLLEGE SARAWAK

Located in the vibrant city of Kuching, SEGi College Sarawak is one of the largest private colleges in East Malaysia. The campus offers programmes in the fields of Management, Accountancy, Hospitality, Information Technology and Law, the only campus in the East Malaysia to offer Law programmes at diploma and degree levels.

The college was awarded a Six Star rating (Outstanding) for Private Colleges in MyQuest 2016/2017.



# FIRST-CLASS RESOURCES FOR A QUALITY LEARNING EXPERIENCE



## MODERN CHEMICAL ENGINEERING LABS

The chemical engineering laboratories are fully equipped and up-to-date with instruments to aid and maximise classroom experiment exercises.

## STUDENT-CENTERED LEARNING APPROACH

We believe in nurturing our students into becoming life-long learners. We place a strong emphasis on what interests our students in our teaching approach and at the same time foster development skills, such as problem solving, critical thinking and communications.

## WELL-STOCKED LIBRARIES

Each SEGi campus is equipped with a well-stocked and up-to-date library that includes books, web databases and other electronic resources for students' use.

## GLOBAL PARTNERSHIPS WITH WORLD-WIDE UNIVERSITIES

We work with some of the most prestigious universities from the United Kingdom to develop a knowledge-rich curriculum for our dual award.

## PARTNERSHIPS WITH INDUSTRY

We continue to engage with companies on various platforms to accelerate innovation and help shape future engineering leaders for the industry.

## EXPERIENCED ACADEMICIAN

We pride ourselves on having strong academicians who are also industry leaders, to impart knowledge and share experiences to ensure students reap the full benefits at SEGi.

# WORLD RENOWNED UNIVERSITY PARTNER



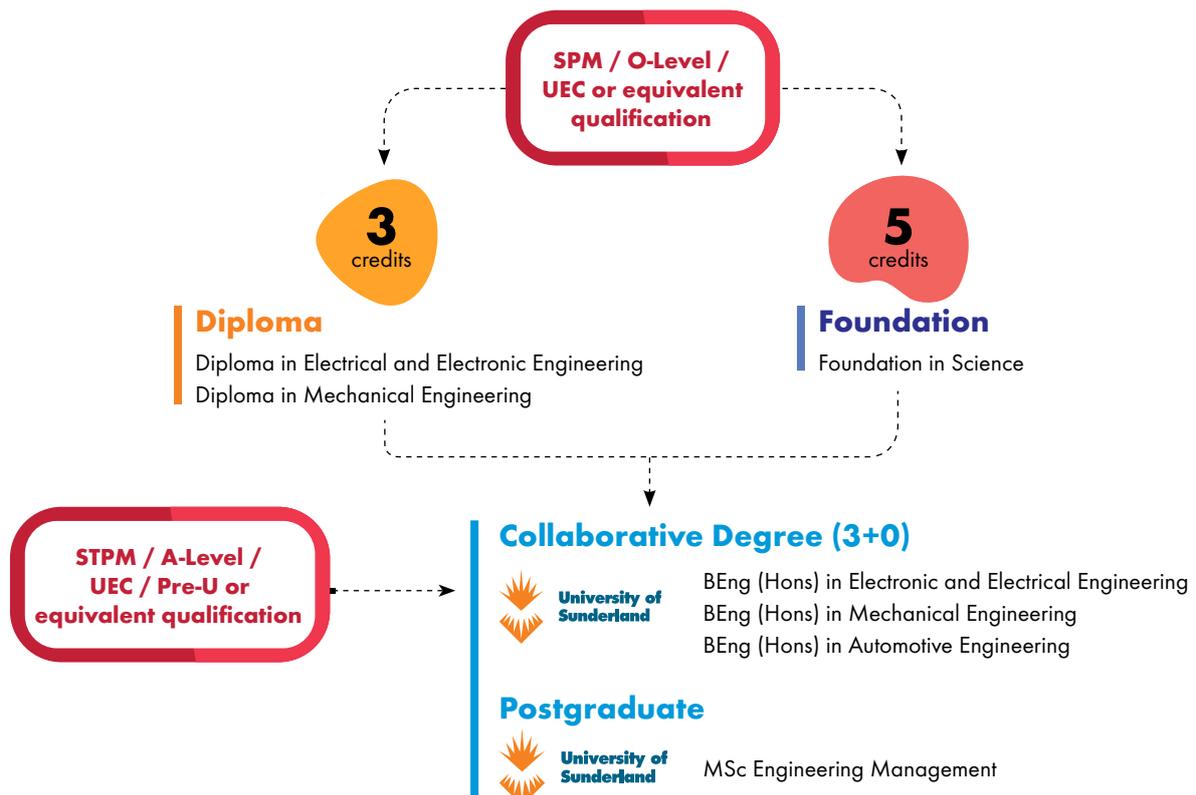
**University of  
Sunderland**

## University of Sunderland

University of Sunderland (UOS) has been providing higher education since 1901 and is proud to be an innovative, forward-thinking university with high standards of teaching, research and support. As a research active university, UOS aims to enhance the learning experience of its students as well as its academic standing as a seat of higher learning and scholarship.

Academic programmes are at the core of the University's commitment to produce well-rounded graduates. The Guardian ranks its Hospitality, Event Management & Tourism as 4th best in the country, while Nursing is ranked 5th best. Other highly-ranked majors in the Guardian league tables are Business, Management & Marketing, Accounting & Finance, Mechanical Engineering and Fashion & Textiles.

## STUDY ROUTE



# PROGRAMME MATRIX

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 <b>Programme</b>	 <b>Awarding Institution</b>	 <b>Entry Requirements</b>	 <b>Campus</b>
MSc Engineering Management	University of Sunderland, UK	<ul style="list-style-type: none"> <li>• Degree in Electrical / Electronic Engineering or Mechanical Engineering with minimum CGPA 2.5 or third class honours or equivalent; OR</li> <li>• Pass the Engineering Council Examination part III (EE or ME)</li> </ul>	Subang Jaya
BEng (Hons) Automotive Engineering (3+0)		<ul style="list-style-type: none"> <li>• Pass a recognised Matriculation / Foundation Programme with of at least CGPA 2.00 and credit in Mathematics or Science in the SPM; OR</li> <li>• Pass STPM with at least CGPA 2.00 with full passes in 2 subjects (Mathematics or Science); OR</li> <li>• Pass a Diploma in any related field with at least CGPA 2.50. Candidates with a score of below CGPA 2.50 but more than 2.00 may be accepted subject to evaluation</li> </ul>	Subang Jaya
BEng (Hons) in Mechanical Engineering (3+0)	University of Sunderland, UK	<ul style="list-style-type: none"> <li>• Pass Foundation in Science; OR</li> <li>• STPM / A-level – 2 Principal Passes (Mathematics &amp; Physics); OR</li> <li>• UEC 5 B's (including Mathematics &amp; Physics); OR</li> <li>• Pass in a recognised Diploma in Mechanical Engineering with minimum CGPA of 2.0; OR</li> <li>• SAM / CPU / AUSMAT – 65% and above</li> </ul>	Subang Jaya Penang
BEng (Hons) in Electronic & Electrical Engineering (3+0)		<ul style="list-style-type: none"> <li>• Pass Foundation in Science; OR</li> <li>• STPM / A-level – 2 Principal Passes (Mathematics &amp; Physics); OR</li> <li>• UEC 5 B's (including Mathematics &amp; Physics); OR</li> <li>• Pass in a recognised Diploma in Electronics and Electrical Engineering with minimum CGPA of 2.0; OR</li> <li>• SAM / CPU / AUSMAT – 65% and above</li> </ul>	Subang Jaya Penang
Diploma in Electrical & Electronic Engineering	SEGi College	<ul style="list-style-type: none"> <li>• SPM / SPMV / UEC with a minimum of 3 credits (including Mathematics and one Science subject) or other equivalent qualification</li> </ul>	Subang Jaya Penang
Diploma in Mechanical Engineering			Subang Jaya
Foundation in Science	SEGi College	<ul style="list-style-type: none"> <li>• SPM/ O-Level / SM2 or equivalent (5 credits including Mathematics and two Science subjects)</li> </ul>	Subang Jaya Penang Sarawak

All diploma and degree programmes require students to take general subjects (Mata Pelajaran Umum), as required by the Ministry of Education, Malaysia. Besides, the programme duration may vary with different intake per year.

The above is an indication of current programme content. However, the rapidly changing nature of the subject area means that the courses offered and individual course content are continuously updated to meet industry needs. Also, please note that certain combinations of options may not be available.

# 8 MSc ENGINEERING MANAGEMENT

UNIVERSITY OF SUNDERLAND, UK



This Master's programme equips you to be a leader in a technical team to deliver projects on time and on budget.

During the course of your study, you will build on your technical background while adding business and management skills. These skills include project control, supply chain management, risk management and quality optimisation. You will also develop the soft skills of working with others and leading projects.

Your Masters project will also involve a real-world project. It will include both research and practical elements, and it is an opportunity to impress not only your academic assessors but also potential employers.

## Programme Modules

### Year 1

- Managing People and Project Leadership
- Project Risk and Quality Management
- Research Skills and Academic Literacy
- Decision Support for Management
- Engineering Operation Management
- Advanced Maintenance Practice
- Project Management and Control
- Project



I did my Bachelor in Engineering in Tunisia. The first thing that attracted me to SEGi was its excellent reputation for world-class education. Now, I have a great chance to be part of a greater family here in Malaysia by enrolling with SEGi for my postgraduate studies. This great opportunity have assisted me in my communication skills and I'm gaining a lot of experience.

**Refka Sebri**

## Career Opportunities

A Master of in engineering management graduate would have the opportunity to gain access to general management positions in the engineering sector.

# BEng (HONS) ELECTRONIC & ELECTRICAL ENGINEERING (3+0)

UNIVERSITY OF SUNDERLAND, UK



University of  
Sunderland

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Get the skills and knowledge that enables you to influence the direction of electronic and electrical engineering, and make the world a better and more interesting place for future generations.

The University of Sunderland BEng (Hons) Electronic & Electrical (3+0) programme is designed to provide you with a wide range of engineering and management skills. This is achieved by working individually or as part of a team to solve technical problems and implement appropriate solutions. You will start by learning fundamental skills required to understand basic engineering principles. Then, the emphasis will be on a number of electronic & electrical subject areas.

## Programme Modules

### Year 1

- Design Drawing and Practical Skills
- Applied Mechanics
- Manufacturing and Materials
- Energy Conversion
- Electronic and Electrical Principles
- Engineering Mathematics
- Electromagnetic Theory
- Hubungan Etnik
- Tamadun Islam & Tamadun Asia
- Magnetism theory (SJ)
- C++ Programming (PG)

### Year 2

- Manufacturing Processes
- Electrical Power Systems and Machines
- Control and Instrumentation
- Electronics
- Mathematics, Statistics and Simulation
- Microprocessor and PLCs
- Communication System
- Entrepreneurship
- Public Speaking
- Prog. Methodology & Problem-Solving (SJ)
- Research Writing (PG)

### Year 3

- Electrical Power
- Electronic Systems Design
- Manufacturing Systems Design
- Project
- Professional Engineering Management Techniques
- Community Service



The engineering programme has been an eye opening experience. With priority placed in practical based knowledge and design, coupled with the fundamental engineering principles, I am happy to say my future is bright.

**Hwang Chin Shern**

## Career Opportunities

As graduates of the BEng (Hons) Electronics & Electrical programme, you will have a wide choice of career in diverse sectors such as: Automotive industry, Aerospace, Power generation and Communications.

# BEng (HONS) MECHANICAL ENGINEERING (3+0)

UNIVERSITY OF SUNDERLAND, UK



The BEng (Hons) Mechanical Engineering is an ideal programme if you are interested in technology and its use in creative design. This programme will equip you with the necessary skills and knowledge to become a modern mechanical engineer.

Throughout the programme, you will encounter problems that need to be solved individually or as a group. You will need to design and construct new equipment for novel and challenging applications and tackle problems using the tools and computer systems available to today's engineers.

As the programme progresses, you will also learn about management and the business context of engineering projects, thus gaining the confidence to tackle the varied and demanding work of an engineer

## Programme Modules

Year 1	Year 2
<ul style="list-style-type: none"> <li>■ Design Drawing and Practical Skills</li> <li>■ Applied Mechanics</li> <li>■ Manufacturing and Materials</li> <li>■ Energy Conversion</li> <li>■ Electronic and Electrical Principles</li> <li>■ Engineering Mathematics</li> <li>■ Hubungan Etnik</li> <li>■ Tamadun Islam &amp; Tamadun Asia</li> <li>■ C++ Programming (PG)</li> <li>■ Prog. Methodology &amp; Problem-Solving (SJ)</li> </ul>	<ul style="list-style-type: none"> <li>■ Engineering Mechanics</li> <li>■ Design Methods and Applications</li> <li>■ Computer Aided Engineering</li> <li>■ Thermofluids and Engines</li> <li>■ Manufacturing Processes</li> <li>■ Microprocessor and PLCs</li> <li>■ Numerical Analysis</li> <li>■ Research Writing</li> <li>■ Entrepreneurship</li> <li>■ Public Speaking</li> <li>■ Research Writing (PG)</li> <li>■ Engineering and Society (SJ)</li> </ul>
Year 3	
<ul style="list-style-type: none"> <li>■ Mechanical Design &amp; Material Selection</li> <li>■ Engineering Dynamics &amp; Thermofluids</li> <li>■ Manufacturing System Design</li> <li>■ Professional Engineering Management Techniques</li> <li>■ Project</li> <li>■ Community Service</li> <li>■ Internship</li> </ul>	

## Career Opportunities

As graduates of the BEng (Hons) Mechanical Engineering, you will have the necessary skills and knowledge to play a major role in design, management and manufacturing in a wide range of industries.

# BEng (HONS) AUTOMOTIVE ENGINEERING (3+0)

UNIVERSITY OF SUNDERLAND, UK



University of  
Sunderland

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We provide you with a thorough understanding of advanced technologies and processes related to automotive systems, analysis techniques and design methodologies.

Develop skills for clear communication and responsible teamwork to inspire professional attitudes and ethics along the way. This prepares you for the modern work environment and lifelong learning.

The multi-disciplinary nature of automotive systems ranging from manufacturing and power trains to electrical power or control systems, provides opportunities for you to gain exposure in disciplines at an advanced graduate level.

Programmes such as Automotive System Design, Automotive Electronic & Electrical System, Chassis Technology and Automotive Technology prepare you for employment within the automotive industry or other related fields.

## Programme Modules

Year 1	Year 2
<ul style="list-style-type: none"><li>■ Applied Mechanics</li><li>■ Manufacturing and Materials</li><li>■ Engineering Mathematics</li><li>■ Introduction to Automotive Engineering</li><li>■ Design, Drawing and Practical Skills</li><li>■ Hubungan Etnik / Malaysian Studies</li><li>■ Tamadun Islam &amp; Asia Tenggara</li><li>■ Energy Conversion</li><li>■ Electronic &amp; Electrical Principals</li></ul>	<ul style="list-style-type: none"><li>■ Design Methods and Application</li><li>■ Computer Aided Engineering Application</li><li>■ Automotive Electronic &amp; Electrical System</li><li>■ Vehicle Drive Train and Chassis System</li><li>■ Engineering Mechanics</li><li>■ Thermofluid and Engine</li><li>■ Steering and Suspension System</li><li>■ Theory of Machines</li><li>■ Public Speaking</li><li>■ Entrepreneurship</li><li>■ Microprocessor and PLC's</li></ul>
Year 3	
<ul style="list-style-type: none"><li>■ Automotive Dynamic and Control System</li><li>■ Project</li><li>■ Mechanical to Automotive Design and Material Selection</li><li>■ Manufacturing System Design</li><li>■ Community Service</li><li>■ Professional Engineering Management Techniques</li><li>■ Internship</li></ul>	

## Career Opportunities

This programme prepares you for a career in research, design, development, advanced engineering and production of various types of heavy or light vehicles. As graduates of this programme, you can create the latest design for vehicles, utilising knowledge in engine and transmission, vehicle dynamics, analysis of vehicle structure and electronics.

# DIPLOMA IN MECHANICAL ENGINEERING

## SEGi COLLEGE

The mechanical engineering industry comprises of a range of occupations involving the design, production and service of machinery, equipment, tools and mechanical systems.

The Diploma in Mechanical Engineering provides you with a solid foundation in mechanical engineering. As graduates of this diploma, you possess a broad understanding of engineering fundamentals, preparing you for your degree studies or the workplace. You will have the skills and knowledge to apply analytical, design, industrial, laboratory, and fieldwork skills.

### Programme Modules

#### Foundation

- Foundation Mathematics
- Foundation Physics
- Foundation Chemistry
- Computer Application

#### Thermofluid and Heat

- Fluid Mechanics
- Thermodynamics
- Heat Transfer

#### Soft Skills

- Engineering Communication and Case Studies
- Industrial Training
- Malaysian Studies
- Decision Making Skills
- Moral Studies / Islamic Studies
- Community Service

#### Materials

- Material Science
- Mechanics of Materials

#### Manufacturing

- Manufacturing Processes
- Industrial Management

#### Design

- Engineering Drawing
- Design of Machine Element

#### Basics of Mechanical Engineering

- Programming Methodology and Problem-Solving
- Engineering Mathematics
- Principles of Electrical and Electronic Engineering
- Engineering Mechanics
- Dynamics
- Mechanical Engineering Practice

### Career Opportunities

Possible job titles relevant to this qualification include: CAD Application Engineer, Trainee Engineer, Trainee Design Engineer, Mechanical, Design Engineer, Draughts Person and Structural Engineer.

# DIPLOMA IN ELECTRICAL & ELECTRONIC ENGINEERING

SEGi COLLEGE

The Diploma in Electrical & Electronic Engineering programme covers a broad-based suite of electronic and electrical engineering modules, ensuring you are equipped with the necessary skills, knowledge and expertise to face challenges across a wide range of electrical and electronic industries.

## Programme Modules

Foundation	Power
<ul style="list-style-type: none"> <li>■ Foundation Mathematics</li> <li>■ Foundation Physics</li> <li>■ Foundation Chemistry (SJ)</li> <li>■ Computer Application (SJ)</li> </ul>	<ul style="list-style-type: none"> <li>■ Electric Machines</li> <li>■ Power Systems</li> </ul>
Soft Skills	Electronic
<ul style="list-style-type: none"> <li>■ Academic English</li> <li>■ Engineering Communication and Case Studies</li> <li>■ Industrial Training</li> <li>■ Malaysian Studies</li> <li>■ Decision Making Skills</li> <li>■ Moral Studies / Islamic Studies</li> <li>■ Community Service</li> <li>■ Project</li> </ul>	<ul style="list-style-type: none"> <li>■ Circuit Theory and EMF</li> <li>■ Digital Electronics</li> <li>■ Analogue Electronics</li> <li>■ Microprocessors</li> <li>■ Microelectronics and Logic System Designs (PG)</li> <li>■ Introduction to robotics (PG)</li> </ul>
Control	Communication
<ul style="list-style-type: none"> <li>■ Instrumentation and Measurement</li> <li>■ Control Systems</li> <li>■ Industrial Electronics &amp; Simulation</li> </ul>	<ul style="list-style-type: none"> <li>■ Communication Systems</li> </ul>
Basics of Electrical & Electronic Engineering	
<ul style="list-style-type: none"> <li>■ Programming Methodology and Problem-Solving</li> <li>■ Engineering Drawing</li> <li>■ Engineering Maths</li> <li>■ Principles of Electrical and Electronic Engineering</li> </ul>	

## INTERESTING FACT

**96% OF OUR GRADUATES**  
get employed within 6 months upon graduation



## Career Opportunities

As graduates of the Diploma in Electronic & Electrical Engineering, you are able to pursue a variety of job roles. Possible job titles relevant to this qualification include: Electrical Engineering Technical Officer, Technologist, Design Specialist, Assistant Engineer.

# FOUNDATION IN SCIENCE

## SEGi COLLEGE

The foundation programme is shaped to equip you with the knowledge, skills and practice needed to bridge you from secondary studies to tertiary level.

We cover the subject of applied sciences, providing a strong foundation for those intending to pursue programmes in Health Sciences, Engineering and Computing. The foundation will guarantee your entry into above par degree programmes with SEGi as well as UK universities in collaboration with SEGi. The foundation programme enables you to gain direct entry into the respective degree programmes.

### Programme Modules

#### Semester 1

- Physics 1
- Chemistry 1
- Mathematics 1
- Public Speaking
- Malaysian Studies

#### Semester 2

- Physics 2
- Chemistry 2
- Mathematics 2
- Biology 1 / Information Technology
- Moral Studies / Islamic Studies

#### Semester 3

- Physics 3
- Chemistry 3
- Mathematics 3
- Biology 2 / Computer Applications

### Specialisation (Computing) - Subang Jaya Campus

#### Semester 1

- Mathematics 1
- Introduction to IT
- General Language Training
- Fundamental of Multimedia
- Malaysian Studies 1 (Malaysian Student)  
/ Bahasa Melayu Komunikasi 1  
(International Student)

#### Semester 2

- Mathematics 2
- Introduction to Web Designing
- Academic English
- Introduction to Programming
- Bahasa Kebangsaan A\* /  
Effective Listening

#### Semester 3

- Mathematics 3
- Introduction to Database
- Problem Solving & Algorithm
- Family Issues

### Why study this programme?

This qualification is specially designed for students with SPM, O-Level or equivalent qualifications. Upon successful completion of this programme, students may enrol in a range of health science, engineering or computing degree programmes.



**SEGi College Kuala Lumpur** (42114-V)

☎ 603 2070 2078    📞 012 988 9627    📞 1800 88 8028

**SEGi College Subang Jaya** (284515-V)

☎ 603 8600 1777    📞 016 212 9154    📞 1800 88 8622

**SEGi College Penang** (187620-W)

☎ 604 263 3888    📞 013 629 4880

**SEGi College Sarawak** (172726-T)

☎ 6082 252 566    📞 017 859 2566    📞 1300 88 7344

The best in you, made

**POSSIBLE**

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