

GRADUATION REQUIREMENTS

You may choose the optimum number of credits to enrol each semester to suit your personal, work and study commitments. To graduate, you must complete a minimum of 120 credit hours and obtain a minimum CGPA of 2.0.

SUPPORT SERVICES

Our students receive:

- Easy-to-understand online course content and helpful pointers in the form of course-specific PowerPoint slides.
- Access to FlexLearn (interactive LMS), student portal, vast online library resources and other electronic privileges.
- Libraries at Main Campus, Regional Centres and Regional Support Centres.
- Administrative support at Main Campus, Regional Centres and Regional Support Centres.



APPLICATION PROCEDURES

Please download the application form from wou.edu.my or get it from our Regional Centres. Submit your duly completed form to the respective Regional Centres or mail it to Wawasan Open University Main Campus.

- Content stated in this brochure is subject to change without prior notice.
- While the University has taken careful steps to ensure the information in this brochure is accurate, nevertheless we reserve the right to correct errors where necessary.

January 2021

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Wawasan Open University [DU013(P)]

Wholly owned by Wawasan Open University Sdn Bhd [200501018250 (700364-W)]

WOU Main Campus

54, Jalan Sultan Ahmad Shah, 10050 Penang, Malaysia.
Fax: 04-226 9323 Email: enquiry@wou.edu.my

WOU Regional Learning Centres

PENANG BAYAN LEPAS IPOH KUALA LUMPUR
JOHOR BAHRU KUCHING MIRI KOTA KINABALU

(All centres above are closed on Mondays, except for the WOU Penang Regional Centre which is open every day)

For further details, call Toll-free Careline

1-300-888-968 (WOU)

or visit

wou.edu.my



WOUTM
W A W A S A N
OPEN UNIVERSITY

UNLOCK
THE WORLD

SCHOOL OF **DIGITAL TECHNOLOGY**

Bachelor of **SOFTWARE ENGINEERING** (HONOURS) **(APPLICATION DEVELOPMENT)**

N-DL/481/6/0829(MQA/PA14226)03/28

PROGRAMME OUTLINE

Digital economy is transforming business models and creating a demand for professionals skilled in helping businesses grow through technology adoption. The ongoing Fourth Industrial Revolution (IR 4.0) is driving up the demand for software engineering skills to address business challenges and to help bridge the significant digital skills gap with the upskilling of the workforce.

The Bachelor in Software Engineering (Honours) (Application Development) programme aims to produce graduates who are skilled in the latest technologies and possess in-depth practical experiences in designing, developing and solving a wide range of applications and system integration.

Students will learn programming and technical skills, software development processes, web and database development, and software testing and reengineering to enable them to handle real-world problems and business environment projects.

ENTRY REQUIREMENTS

REGULAR ENTRY

Candidates must possess a minimum of:

- Grade C (SCP 2.0) in at least two (2) subjects / two (2) Principals in STPM and a credit in SPM Additional Maths; or
- Five (5) grade Bs in UEC Senior Middle III and a credit in SPM Additional Maths; or
- Matriculation / Foundation with a minimum CGPA of 2.0 and a credit in SPM Additional Maths; or Diploma in Computer Science / Software Engineering / Information Technology / Information Systems with a minimum CGPA 2.5 and a credit in SPM Additional Maths; or
- Any other Diploma in Science & Technology / Business Studies with a minimum CGPA of 2.5 and a credit in SPM Additional Maths

Note: The admission requirement of a credit in Additional Maths at SPM level can be exempted if Mathematics is offered in these credentials and the candidate has achieved similar / higher grades for these subjects in the said credentials compared to a credit grade at SPM level.

ACCREDITATION OF PRIOR EXPERIENTIAL LEARNING (APEL)

Accreditation of Prior Experiential Learning (APEL) provides an opportunity for individuals with working experience but lack of formal academic qualifications to pursue their tertiary studies. APEL involves the identification, documentation and assessment of prior experiential learning to determine the extent to which an individual has achieved the desired learning outcomes, for access to a programme of study.

Applicants should comply with the following admission criteria stipulated by the Ministry of Higher Education (MOHE) and Malaysian Qualifications Agency (MQA):

- The candidate should be at least 21 years of age in the year of application and possess relevant work experience.
- Other equivalent qualifications recognised by the Malaysian Government.

PROGRAMME COMPONENTS

| No. | Course Code | Course Title | Credit Hours |
|--|-------------|------------------------------------|--------------|
| MPU COURSES | | | |
| 1 | MPU3213/03 | Bahasa Kebangsaan A, OR | 3 |
| | MPU3223/03 | Decision Making Skills | |
| 2 | MPU3412/02 | Co-Curriculum | 2 |
| 3 | MPU3313/03 | Comparative Religions, OR | 3 |
| | MPU3333/03 | Human Rights | |
| 4 | MPU3113/03 | Hubungan Etnik OR | 3 |
| | MPU3143/03 | Bahasa Komunikasi 2 | |
| 5 | MPU3123/03 | Tamadun Islam dan Tamadun Asia | 3 |
| | MPU31273/03 | Malaysia Studies 3 | |
| Subtotal Credit Hours | | | 14 |
| ELECTIVES (Choose ANY FIVE (5) Courses) | | | |
| 1 | DSE 221/03 | Data and AI Essentials | 3 |
| 2 | DSE 222/03 | Statistics for Data Science and AI | 3 |
| 3 | DSE 223/03 | R Programming | 3 |
| 4 | DSE 242/03 | Machine Learning | 3 |
| 5 | DSE 243/03 | Deep Learning | 3 |
| 6 | DSE 244/03 | Reinforcement Learning | 3 |
| 7 | TSE 307/03 | Computational Logic | 3 |
| 8 | TCC 125/03 | Software Development Models | 3 |
| 9 | TCC 239/03 | Data Structures and Algorithms | 3 |
| Subtotal Credit Hours | | | 15 |
| FINAL YEAR PROJECT | | | |
| 1 | DSE309/04 | Final Project I | 4 |
| 2 | DSE399/04 | Final Project II | 4 |
| Subtotal Credit Hours | | | 8 |
| INDUSTRIAL TRAINING | | | |
| 1 | TUC209/06 | Industrial Training | 6 |
| Subtotal Credit Hours | | | 6 |

| CORE MODULES | | | |
|------------------------------|------------|--|-----|
| 1 | DSE101/03 | Programming Foundations | 3 |
| 2 | DSE102/03 | Front-end Web Development | 3 |
| 3 | DSE103/03 | UI Frameworks | 3 |
| 4 | DSE105/03 | Web Development Foundations | 3 |
| 5 | DSE104/03 | Database Design and Implementation | 3 |
| 6 | DSE201/03 | Web Development Using Platforms | 3 |
| 7 | DSE203/03 | Develop Enterprise Applications | 3 |
| 8 | DSE204/03 | Application Integration | 3 |
| 9 | DSE205/03 | Application Development & Processes | 3 |
| 10 | DSE208/03 | Agile Apps Development | 3 |
| 11 | TCC243/03 | Data Communication and Networking | 3 |
| 12 | TCC301/03 | System Security | 3 |
| 13 | DSE115/03 | Capstone Project -Web Development | 3 |
| 14 | DSE211/03 | Capstone Project - Application Development | 3 |
| 15 | TCC235/03 | Software Engineering | 3 |
| 16 | TCC223/03 | Ethics and Professionalism in Computing | 3 |
| 17 | TSE313/03 | Systems Analysis and Design | 3 |
| 18 | TSE304/03 | Software Scalability and Reengineering | 3 |
| 19 | TSE305/03 | Software Project Management | 3 |
| 20 | TSE310/03 | Software Assurance and Quality Assurance | 3 |
| 21 | TCC122/03 | Discrete Structures | 3 |
| Subtotal Credit Hours | | | 63 |
| FREE MODULES | | | |
| 1 | DSM201/04 | Creative and Problem Solving | 4 |
| 2 | DSM218/04 | Collaborating & Working with Others | 4 |
| 3 | WUCP118/03 | Technopreneurship | 3 |
| 4 | DBC101/03 | Business Communication Skills | 3 |
| Subtotal Credit Hours | | | 14 |
| Programme Total Credit Hours | | | 120 |

WOU WORK2LEARN JOURNEY

| | |
|---|---|
| Year 1 WOU ProCamp | Start work in 12 months |
| Year 2 - 4 Work Full-time & Study Part-time | <ul style="list-style-type: none"> • Debt-free degree for graduates who start work in 12 months. • Paid apprenticeship after 12 months. • Gain 3 years of work experience upon graduation. • World class content. • Employed by MNCs and startups. |