

CAREER PROSPECTS

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UPNM
National Defence University of Malaysia
Kewajipan • Maruah • Integriti

- Operations Analyst
- Operations Research Analyst
- Data Scientist
- Data Analyst
- Statistician
- Data Engineer
- Machine Learning Engineer
- Research officer
- Lecturer
- Project manager



UPNM
National Defence University of Malaysia
Kewajipan • Maruah • Integriti

FACULTY OF DEFENCE SCIENCE AND TECHNOLOGY

UNIVERSITI PERTAHANAN NASIONAL
MALAYSIA

Kem Sungai Besi, 57000 Kuala Lumpur

Phone: 03-90513400

Fax: 03-90512549

Bachelor Degree of OPERATIONS RESEARCH WITH DATA SCIENCE

Duty . Honour . Integrity

FSTP | UPNM

PROGRAMME OBJECTIVES & STRUCTURE

The Bachelor's Degree Program in Operations Research with Data Science is the first major-minor program in Malaysia that combines the field of Operations Research with Data Science.

This goal is to produce graduates who are competitive in terms of filling academic knowledge and are able to integrate basic science in the field of defense.

The study period for this bachelor's degree program is 3 years (6 regular semesters and 2 short semesters).

The total credit requirement that must be met to graduate is 126 credit hours.

LIST OF PROGRAMME COURSES

CORE COURSE

Calculus, Design of Experiments, Linear Algebra, Linear and Integer Programming, Network Flow, Numerical Analysis, Regression Analysis, Simulation and Queuing Theory, Statistical Computing with R, Discrete Mathematics, Object-Oriented Programming, Data Structures, Database Systems, Systems Analysis and Design, Introduction to Programming, Statistics for Operations Research, Artificial Intelligence, Final Year Project I, Final Year Project II, Industrial Training

ELECTIVE COURSE

Decision Analysis, Defence Logistics and Transportation Management, Econometrics, Efficiency and Productivity Analysis, Game Theory, Introduction to Materials Management, Project Management, Statistical Inference, Time Series and Forecasting, Machine Learning for Data Science, Web Programming and Development, Computer Networks and Security, Computer Graphics and Visualisation, Big Data Analytics and Development, Introduction to Cryptography, Introduction to IoT Data Analysis, Image Processing and Analytics

SPECIAL ADMISSION REQUIREMENTS

GRADUATES OF STPM/MATRIKULASI/ASASI*

Pass the exam with at least a CGPA of 2.33.

GRADUATES OF DIPLOMA*

Possess a Diploma in a related field with at least a CGPA of 2.50.

MUET SCORE

Obtain at least Level 2 (Band 2) in the Malaysian University English Test (MUET).

*Open to Science Stream and Technical Stream.

TUITION FEES

One-Time Fee throughout Study	Recurring Fees (Per Semester)
RM 980	RM 1,514

TUITION FEES

LALUAN
KERJAYA

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- Penganalisis Operasi
- Penganalisis Penyelidikan Operasi
- Saintis Data
- Penganalisis Data
- Perangkawan
- Jurutera Data
- Jurutera Pembelajaran Mesin
- Pegawai Penyelidik
- Pensyarah
- Pengurus Projek



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FAKULTI SAINS DAN TEKNOLOGI
PERTAHANAN

UNIVERSITI PERTAHANAN NASIONAL MALAYSIA

Kem Sungai Besi, 57000 Kuala Lumpur

Tel: 03-90513400

Faks: 03-90512549

Ijazah Sarjana Muda

**PENYELIDIKAN OPERASI
DENGAN SAINS DATA**

Kewajipan . Maruah . Integriti

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MATLAMAT & STRUKTUR PROGRAM

Program Ijazah Sarjana Muda Penyelidikan Operasi dengan Sains Data merupakan satu program major-minor yang pertama di Malaysia yang menggabungkan bidang Penyelidikan Operasi dengan Sains Data.

Matlamat ini adalah untuk menghasilkan para graduan yang berdaya saing dari segi pengisian ilmu akademik dan berupaya mengintegrasikan sains asas dalam bidang pertahanan.

Tempoh pengajian bagi program ijazah sarjana muda ini adalah selama 3 tahun (6 semester lazim dan 2 semester pendek).

Jumlah keperluan kredit yang perlu dipenuhi untuk bergraduat adalah 126 jam kredit.

SENARAI KURSUS PROGRAM

KURSUS TERAS

Calculus, Design of Experiments, Linear Algebra, Linear and Integer Programming, Network Flow, Numerical Analysis, Regression Analysis, Simulation and Queuing Theory, Statistical Computing with R, Discrete Mathematics, Object-Oriented Programming, Data Structures, Database Systems, Systems Analysis and Design, Introduction to Programming, Statistics for Operations Research, Artificial Intelligence, Final Year Project I, Final Year Project II, Industrial Training

KURSUS ELEKTIF

Decision Analysis, Defence Logistics and Transportation Management, Econometrics, Efficiency and Productivity Analysis, Game Theory, Introduction to Materials Management, Project Management, Statistical Inference, Time Series and Forecasting, Machine Learning for Data Science, Web Programming and Development, Computer Networks and Security, Computer Graphics and Visualisation, Big Data Analytics and Development, Introduction to Cryptography, Introduction to IoT Data Analysis, Image Processing and Analytics

SYARAT KHUSUS KEMASUKAN

LEPASAN STPM/MATRIKULASI/ASASI*

Lulus peperiksaan dengan mendapat sekurang-kurangnya PNGK 2.33.

LEPASAN DIPLOMA*

Memiliki Diploma dalam bidang yang berkaitan dengan mendapat sekurang-kurangnya PNGK 2.50.

SKOR MUET

Mendapat sekurang-kurangnya Tahap 2 (Band 2) dalam Malaysian University English Test (MUET).

*Terbuka kepada Aliran Sains dan Aliran Teknikal.

YURAN PENGAJIAN	
Yuran Sekali Sepanjang Pengajian	Yuran Berulang (Per Semester)
RM 980	RM 1,514

YURAN PENGAJIAN