Stellenbosch
UNIVERSITY
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2025

Military Science

Academic programmes and faculty information

Yearbook, Part 13

forward together · sonke siya phambili · saam vorentoe

Please note that the University officially changed the English name "Calendar" to "Yearbook" in August 2023. The new name immediately came into effect in documents and communication of the University and will also be used in all Yearbook parts from the 2024 Yearbook onwards.

Accuracy, liability and changes

- Stellenbosch University has taken reasonable care to ensure that the information provided in the Yearbook parts is as accurate and complete as possible.
- Please note, however, that the University's Council and Senate accept no liability for any incorrect information in the Yearbook parts.
- The University reserves the right to change the Yearbook parts at any time if necessary.

The division of the Yearbook

- The Yearbook is divided into 13 parts.
- Parts 1, 2 and 3 of the Yearbook contain general information applicable to all students. Make sure that you understand all provisions in Part 1 (General Rules) of the Yearbook that apply to you.
- Parts 4 to 13 of the Yearbook are the faculty Yearbook parts.

Part	Yearbook
Part 1	General Rules
Part 2	Bursaries and Loans
Part 3	Student Fees
Part 4	Arts and Social Sciences
Part 5	Science
Part 6	Education
Part 7	AgriSciences
Part 8	Law
Part 9	Theology
Part 10	Economic and Management Sciences
Part 11	Engineering
Part 12	Medicine and Health Sciences
Part 13	Military Science

Availability of the Yearbook parts

- The electronic versions of the Yearbook parts are available at www.sun.ac.za/Yearbook.
- Parts 1 to 12 are available in both English and Afrikaans. Military Science (Part 13) is only available in English.

Table of Contents

How to use this Yearbook part

This section gives you guidelines for finding particular information in the different chapters in this Yearbook part. Consult the table of contents for the page numbers of the chapters referred to below.

1. How to locate information

1.1 Prospective undergraduate students

- The chapter “General Information” contains information about:
  - communication with the Faculty and University, including an explanation of the concepts "application number" and “student number” as well as contact details for directing important enquiries;
  - the University’s Language Policy and Plan and how they are is applied by the Faculty; and
  - the degree programmes that you can enrol for and the qualifications that you can obtain, as well as important provisions regarding programmes and modules.
- The chapter “Undergraduate Programmes” contains information about:
  - the minimum admission requirements for the various study programmes;
  - the Faculty’s undergraduate study programmes; and
  - the subjects and modules that you must take per academic year for the different study programmes, with choices where applicable.
- The chapter “Subjects, Modules and Module Contents” contains:
  - an explanation of subjects as opposed to modules;
  - an explanation of the different digits used for numbering modules in the chapter “Undergraduate Programmes”;
  - definitions of the language specifications of modules; and
  - definitions of prerequisite pass modules, prerequisite modules and corequisite modules.
- An alphabetical list of undergraduate subjects has been included in the back of this Yearbook part.

1.2 Prospective postgraduate students

- The chapter “General Information” contains information about:
  - communication with the Faculty and the University, including an explanation of the concepts "application number" and “student number” as well as contact details for referring important enquiries; and
  - the University’s Language Policy and Plan and how they are applied by the Faculty.
- The chapter “Postgraduate Programmes” contains information about:
  - the Faculty’s postgraduate study programmes;
  - the minimum admission requirements for the various study programmes;
  - specific closing dates for applications, and other relevant information (e.g. selection for admission); and
  - the subjects and modules that you must take per academic year for the different study programmes, with choices where applicable.

1.3 Registered undergraduate students

- The chapter “General Information” contains information about:
  - communication with the Faculty and the University, with contact details where for referring important enquiries to; and
  - the University’s Language Policy and Plan and how they are applied by the Faculty;
- The chapter “Undergraduate Programmes” contains information about:
  - the Faculty’s undergraduate study programmes; and
  - the subjects and modules that you must take per academic year for the different study programmes, with choices where applicable.
- The chapter “Subjects, Modules and Module Contents” contains information about:
  - an explanation of subjects as opposed to modules;
  - an explanation of the different digits used for numbering modules in the chapter “Undergraduate Programmes”;

- the abbreviations and definitions used to indicate the teaching loads of individual modules;
- an indication at each module of its teaching load;
- definitions of the language specifications of modules, as well as an indication at each module of its language specification;
- definitions of prerequisite pass modules, prerequisite modules and corequisite modules, as well as an indication at each module of the requirements that apply to it, if any; and
- the aims, content and outcomes of each individual module.

- An alphabetical list of undergraduate subjects has been included in the back of this Yearbook part.

1.4 Registered postgraduate students

- The chapter "Postgraduate Programmes" contains information about:
  - the Faculty's postgraduate study programmes; and
  - the subjects and modules that you must take per academic year for the different study programmes, with choices where applicable.

1.5 Prospective students for the PhD in Military Science degree

- The chapter "Postgraduate Programmes" contains information about:
  - the doctoral programme of study that is offered; and
  - the minimum admission requirements for the doctoral programme of study.

General information

1. History and functions of the Faculty

1.1.History

The Military Academy was established on 1 April 1950 under the auspices of the University of Pretoria, as a branch of the SA Military College (now the SA Army College) at Voortrekkerhoogte (now Thaba Tshwane). In 1953, the Military Academy would move to Saldanha, under the trusteeship of Stellenbosch University, from which institution successful candidates would receive a BMil degree. In January 1961, the Academy became a faculty in its own right – the Faculty of Military Science of Stellenbosch University.

1.2. Functions

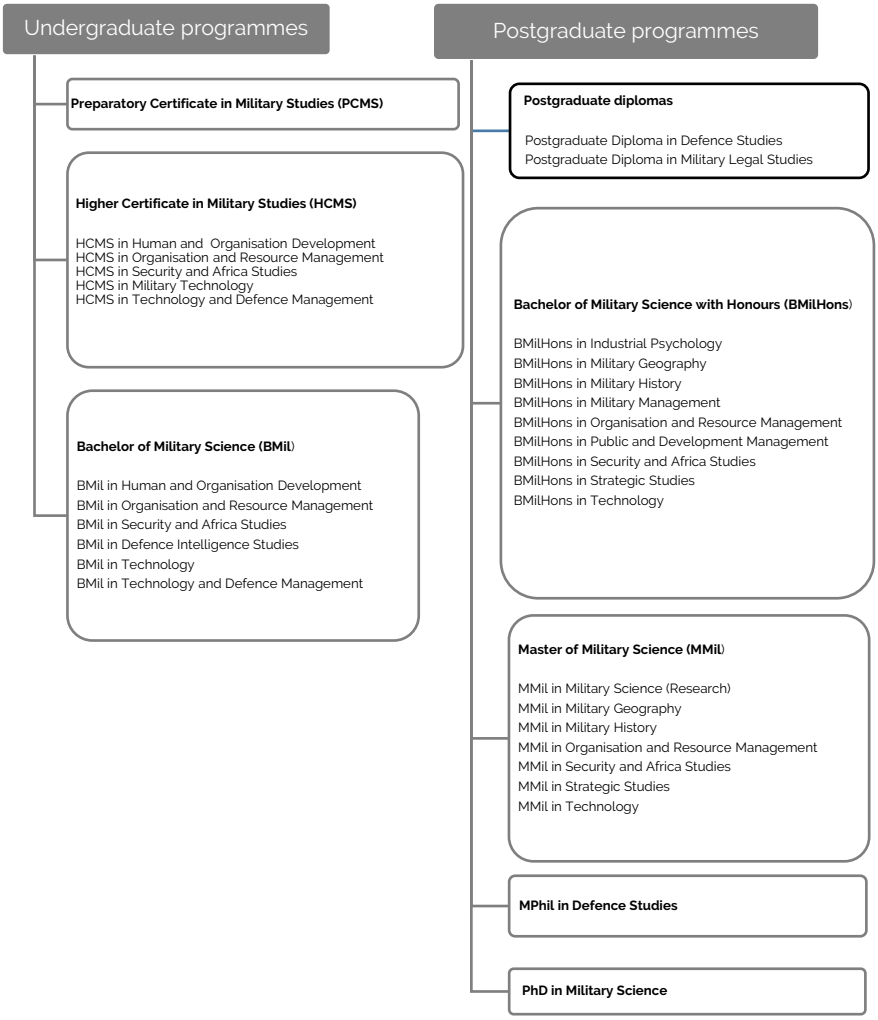
Stellenbosch University is the custodian of the Faculty of Military Science through a contractual agreement with the South African Department of Defence (DoD). The Faculty is located within the SA Military Academy in Saldanha Bay on the West Coast of South Africa. On our Campus, civilian and uniform members work together and learners are members of SA Army, SA Navy, SA Air Force, SA Military Health Services and members of the broader DoD. We develop the future military leaders of South Africa and our international partners such as Botswana, France, Mozambique and Namibia.

We are the only Faculty of Military Science in South Africa and our Faculty members have the opportunity to develop expert knowledge in their respective academic disciplines. Our academic programmes are fully accredited by the Council for Higher Education and we own an accredited research journal (Scientia Militaria). Our Faculty members are engaged in teaching, conducting security-related research and being involved in community interaction with the DoD, academic institutions and civil society.

The Faculty of Military Science has five academic schools:

- the School for Security and Africa Studies;
- the School for Defence Organisation and Resource Management;
- the School for Human Resource Development;
- the School of Science and Technology; and
- the School for Geo-spatial Studies and Information Systems.

2. Qualifications offered at the Faculty



3. Other services offered by Faculty

3.1. Academic development

- study and career guidance;
- life skills development;
- psychotherapeutic services; and
- academic support services.

3.2. Language service

Informal isiXhosa, isiZulu, SeSotho, French and German courses are available on request to staff and students.

4. How to communicate with the Faculty

4.1. Postal and physical address of the Faculty

Postal address

For specific enquiries related to the Faculty:

Faculty of Military Science
Private Bag X2
Saldanha
7395

Physical address

The Faculty of Military Science resides in the Military Academy, which is located on Frans Erasmus Drive in Saldanha on the West Coast.

4.2. Contact details of the Faculty

Faculty of Military Science	Telephone number	Fax number	E-mail address
The Dean Prof MS Tshehla	022 702 3003	022 702 3050	samuel@sun.ac.za
Faculty Administrator Ms MC Basson	022 702 3085	022 702 3050	basson71@sun.ac.za
Faculty Student Administration Ms J Mac Lachlan	022 702 3017	022 702 3050	jeanniem@sun.ac.za
Secretary of the Dean Ms CC Paul	022 702 3019	022 702 3050	coleen@sun.ac.za
Centre of Military Studies Dr MB Khanyile	022 702 3095	022 702 3060	mosesk@sun.ac.za
Telematic Services Coordinator, Saldanha Vacant	022 702 3022 or 022 702 3017	022 702 3049	Vacant
Stellenbosch University Library	021 808 4385/ 021 808 4883	021 808 4336	jsgbestel@exchange.sun.ac.za

5. How to communicate with the University

5.1. Prospective students

- The University allocates an application number to you (for example APP/1234567) when you apply to study at the University.
- The application number is a unique number to identify you and to simplify future communication with the University regarding all your programme applications in a given year.
- Use your application number every time you communicate with the University.

5.2. Current or former Stellenbosch University students

- The University allocates a student number to you when you are admitted to a programme and register at the University.
- The student number is a unique number to identify you and to simplify future communication with the University.
- Use your student number every time you communicate with the University.

5.3. Contact details of the University

Please direct enquiries regarding studies, bursaries and loans, and residence placements to:

The Registrar
Stellenbosch University
Private Bag X1
MATIELAND
7602

Please direct enquiries regarding finances and services, including services at University residences, to:

The Chief Operating Officer
Stellenbosch University
Private Bag X1
MATIELAND
7602

Also visit the University's website at http://www.sun.ac.za

5.4. Useful telephone numbers

Divisions on campus	Telephone number
Bursaries (postgraduate candidates)	021 808 4208
Bursaries and Loans (undergraduate candidates)	021 808 9111
Campus Health Services	021 808 3496/3494
Centre for Student Counselling and Development	021 808 3894
Examinations	021 808 9111
Stellenbosch University Library	021 808 4385/4883
Postgraduate Office	021 808 9436
Stellenbosch University International	021 808 4628/2565
Student Fees	021 808 4519
SU Campus Security (emergencies)	021 808 2333

For divisions not listed above, call the SU Contact and Client Services Centre on 021 808 9111, send a fax to 021 808 3822 or e-mail info@sun.ac.za.

6. Language at the University

Stellenbosch University (SU) is committed to engagement with knowledge in a diverse society and aims to increase equitable access to SU for all students and staff by means of its Language Policy. Multilingualism is promoted as an important differentiating characteristic of SU. Afrikaans, English and isiXhosa are used in academic, administrative, professional and social contexts. Pedagogically sound teaching and learning are facilitated by means of Afrikaans and English.

More information concerning language at SU is available on the website www.sun.ac.za/language.

7. The Faculty's implementation of the Language Policy

In terms of the contractual agreement between the Department of Defence and Stellenbosch University, the teaching and evaluation of all programmes at the Faculty of Military Science are conducted in English.

Undergraduate programmes

1. Bachelor's of Military Science

The Faculty of Military Science offers the following three-year BMil degree programmes:

- BMil in Human and Organisation Development
- BMil in Organisation and Resource Management
- BMil in Defence Intelligence Studies
- BMil in Security and Africa Studies
- BMil in Technology
- BMil in Technology and Defence Management

2. Admission to BMil programmes

2.1. Application and selection

- Please direct your application for admission to a BMil programme to your specific service (Army, Navy, South African Military Health Services [SAMHS] or Air Force).
- For detailed information regarding application procedures, please contact the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.
- Your admission to the BMil degree programme depends on your being selected for undergraduate studies by the Faculty of Military Science Selection Board.

2.2. Admission requirements by way of a Senior Certificate (until 2008)

Admission requirements applicable to all BMil programmes

If you have been selected for undergraduate studies by the Faculty of Military Science Selection Board, you can be admitted to the BMil degree programmes if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with a D aggregate in the final matriculation examination; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support such as academic literacy development, academic writing and reading and study skills.

Additional admission requirements applicable to specific BMil programmes

- For the BMil in Technology:
- a D symbol (higher grade) for the final matriculation examination in both Mathematics and Physical Science; or
- a B symbol (standard grade) for the final matriculation examination in both Mathematics and Physical Science.
- For the BMil in Technology and Defence Management:
- an E symbol (higher grade) for the final matriculation examination in both Mathematics and Physical Science; or
- a D symbol (standard grade) for the final matriculation examination in both Mathematics and Physical Science.
- For the BMil in Organisation and Resource Management:
- an E symbol (higher grade) for the final matriculation examination in Mathematics; or
- a D symbol (standard grade) for the final matriculation examination in Mathematics; or
    - a pass mark in Mathematics at any institution of higher learning at an appropriate level.

2.3. Admission requirements by way of a National Senior Certificate (as from 2009)

Admission requirements applicable to all BMil programmes

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and
  - a mark of at least 4 (50% - 59%) in each of the four school subjects from the list of designated university admission subjects; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Please Note:

If you have achieved an average between 50% and 55% for the National Senior Certificate, you may be required to accept special forms of academic support such as academic literacy development, academic writing and reading and study skills.

Additional admission requirements applicable to specific BMil programmes

- For the BMil in Technology: Mathematics 4 (50% - 59%) and Physical Science 4 (50% - 59%).
- For the BMil in Technology and Defence Management: Mathematics 3 (40% - 49%) and Physical Science 3 (40% - 49%).
- For the BMil in Organisation and Resource Management: Mathematics 3 (40% - 49%) or Mathematical Literacy 4 (50% - 59%), or a pass mark in Mathematics at any institution of higher learning at an appropriate level.

2.4. Admission to BMil by way of the Preparatory Certificate in Military Studies

- If you do not fully meet the admission requirements for BMil degree studies, but you do have the necessary study potential, you may gain admission to the BMil degree programmes by successfully completing this certificate programme.
- Detailed information regarding application procedures for the Preparatory Certificate are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

3. General provisions

- You must complete all three years of your specific BMil degree programme at the Faculty of Military Science in Saldanha.
- The bracketed abbreviation (Mil) after a subject name indicates that the subject content as presented at the Faculty of Military Science at Saldanha may differ from that of the subject with the same name at Stellenbosch-based faculties.
- For degree purposes, Stellenbosch University recognises all first- and second-year modules successfully completed at the Faculty of Military Science as substitutes for the corresponding first- or second-year modules presented in BA, BSc or BCom programmes at the University.
- All third-year academic subjects presented for the BMil degree may lead to one of the following degrees (in the relevant subjects) at Stellenbosch University as well as other universities, but additional studies may be required by the department concerned:
  - BAHons;
  - BScHons; or
  - BComHons programmes.

4. Examination and promotion regulations

4.1. Reassessment

The Faculty makes provision for only two examination opportunities of equal value.

You will be granted a reassessment, which may be in either oral or written form and which will take place immediately following the first examination opportunity (i.e. at the same time as the deferred examinations) to determine whether you pass or fail only if:

- you failed a module in any of the final examinations (May/June or November); and
- you have qualified for reassessment by obtaining a final mark (calculated using the class mark and the examination mark in the ratio 40:60) of at least 40% after the first examination opportunity *and* an examination mark between 30% and 39% for the first examination.

4.2. Determination of final mark

Except in the case of flexible assessment, where only a final mark applies, your final mark (0 - 100) for a module is determined according to the following factors:

- your class mark (0 - 100), which is based on the assessments that you have done in the course of the module, and
- your examination mark (0 - 100), which includes your mark for the final examination (and the reassessment, if any);
- subject to the following provisions:
    - You will be awarded a final mark of at least 50 if your mark for the final examination was 50 or more.
    - You will be awarded a final mark below 50 if your mark for the final examination was less than 40.
    - You will be awarded a final mark below 40 if your mark for the final examination was less than 30.
- In the calculation of your final mark, your class mark and examination mark are combined in the ratio of 40 to 60 in the case of semester modules, and 50 to 50 in the case of year modules.

4.3. Admission to final examinations

You will not be admitted to the final examinations in a module unless you have obtained a class mark of at least 40 in the module, except in the following instances:

- no class mark is required; or
- the class mark is based on only one assessment.

4.4. Proceeding to a module

You can take a module in a specific year of study if you are in arrears with no more than half the credits for a single preceding year of the subject. This rule is subject to the relevant corequisite, prerequisite and prerequisite pass requirements and dependent on the class, test and examination timetables concerned.

4.5. Dean's concession examination

According to the University and the Faculty's requirements, the Dean could request the department(s) concerned to grant you one or more special examinations (called dean's concession examinations).

5. Certificates

5.1. Preparatory Certificate in Military Studies (PCMS)

The Faculty of Military Science, in collaboration with the SANDF, provides an entry-level tertiary qualification – the Preparatory Certificate in Military Studies – to selected officers and candidate officers of the SANDF as well as other defence forces. You can register for the Preparatory Certificate in Military Studies if you:

- do not comply with the minimum admission requirements for degree studies at the University or the Faculty, and/or
- did not achieve matriculation exemption, but you do possess an entry-level tertiary qualification.

Programme duration

The programme is presented twice a year, once each semester.

Programme outcomes

- This programme will equip you with the generic technological, managerial, interpersonal and communication skills that will contribute to your personal and professional growth and empower you to perform your professional duty to the fullest.
- You may gain access to the BMil programmes of the Faculty of Military Science through the successful completion of this programme.
    - However, final admission to a BMil programme is still subject to selection and the specific admission requirements for the BMil programme.
    - You may gain admission to a specific BMil programme by achieving the prescribed performance level in one or both of the Introduction to Technology modules (where applicable), as well as the prescribed aggregate performance level for the programme as a whole. Your admission depends on the career managers from the different services and the Selection Board decision.

Programme contents

The programme consists of:

- three compulsory modules – Study and Life Skills, Introduction to Computers, English Writing and Communication; and
- four optional modules – Introduction to Technology A, Introduction to Technology B, Introduction to Management, and Introduction to Human Behaviour and Cultural Studies.
    - Note that, as a prerequisite for selecting either or both of the optional modules Introduction to Technology A and Introduction to Technology B, you should have at least written the Mathematics paper in the final school examination.

5.2. Higher Certificate in Military Studies (HCMS)

General Provisions

The General Provisions that you can find in section 1.2 in this chapter apply to this Higher Certificate.

Examination and Promotion Regulations

The Examination and Promotion Regulations that you can find in section 1.3 in this chapter apply to this Higher Certificate.

Gaining access to BMil by means of a Higher Certificate in Military Studies

The Department of Defence annually nominates a number of students to be considered by the University for admission to the BMil programme. These students are selected from the group of Higher Certificate students who have successfully completed the Certificate. You can be nominated for the BMil programme if you:

- achieved an average mark of at least 60% for the Certificate programme; and
- comply fully with the requirement of obtaining 120 credits from the first year of the BMil programme to be able to continue with the second year of the BMil programme.

If you do not complete the BMil degree but have completed the Higher Certificate in Military Studies successfully, you will be awarded the Higher Certificate in Military Studies only.

5.2.1. HCMS in Human and Organisation Development

Admission Requirements

Admission requirements with a Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for HCMS studies, you may apply for this qualification if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with a D aggregate in the final matriculation examination; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Admission requirements with a National Senior Certificate (NSC) (as from 2009)

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for HCMS studies, you may apply for this qualification if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with:
    - a mark of at least 4 (50% - 59%) in Afrikaans or English; and

- a mark of at least 4 (50% - 59%) in each of the four school subjects from the list of designated university admission subjects;

or

- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Please Note:

If you have achieved an average between 50% and 55% for the National Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Selection:

- You can be admitted to the HCMS only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.
- Please direct your application to your service division (Army, Navy, SAMHS or Air Force).
- Detailed information regarding application procedures are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core element of the HCMS programme.

Semester credits

Semester credits	Semester 1	Semester 2
Compulsory	56	44
Elective	12	36
Total credits available	68	80
Credits required for programme: 136 of 148		

First semester (68 credits)

Compulsory modules

Computer Information Systems (Mil)	114(12)
English Studies (Mil)	114(12)
Industrial Psychology (Mil)	114(12), 124(12)
Military Ethics	114(8)

Optional module

Criminal and Military Law	114(12)

Second semester (80 credits)

Compulsory modules

Industrial Psychology (Mil)	144(12)
Military Leadership	144(8) P
Public and Development Management (Mil)	144(12)

Elective modules

Choose at least two of the modules from the table below. *Note:* If you did not select Criminal and Military Law in the first semester, you have to take all the elective modules listed below.

Criminal and Military Law	144(12)
English Studies (Mil)	144(12)
Military Management	144(12)

Note regarding requisite modules

You can take a module of a specific subject in a specific year only if you have met the corequisite (C),

prerequisite (P) and/or prerequisite pass (PP) requirements for that particular module.

5.2.2. HCMS in Organisation and Resource Management

Admission Requirements

Admission requirements with a Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for HCMS studies, you may apply for this qualification if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with a D aggregate in the final matriculation examination and an E symbol (higher grade) or a D symbol (standard grade) in Mathematics for the final matriculation examination; or
- a pass mark in Mathematics at any institution of higher learning at an appropriate level; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission requirements with a National Senior Certificate (NSC) (as from 2009)

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for HCMS studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with:
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and
- a mark of at least 4 (50% - 59%) in each of the four school subjects (excluding Mathematics or Mathematical Literacy – see next bullet) from the list of designated university admission subjects; or
- a mark of at least 3 (40% - 49%) in Mathematics or a mark of at least 4 (50% - 59%) in Mathematical Literacy at any institution of higher learning at an appropriate level; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Selection

- You can be admitted to the HCMS only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.
- Please direct your application to your service division (Army, Navy, SAMHS or Air Force).
- Detailed information regarding application procedures are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core part of the HCMS programme.

Semester credits

Semester credits	Semester 1	Semester 2
Compulsory	48	24
Elective	36	60
Total credits available	84	84
Credits required for programme: 120 of 168		

First semester (84 credits)

Compulsory modules

Computer Information Systems (Mil)	114(12)
English Studies (Mil)	114(12)
Military Management	114(12)

Elective modules

Choose at least two of the modules from the table below.

Criminal and Military Law	114(12)
Economics (Mil)	114(12)
Financial Accounting (Mil)	114(12)

Second semester (84 credits)

Compulsory module

Military Management	144(12)

Elective modules

Choose five modules from the table below.

Criminal and Military Law	144(12)
Economics (Mil)	144(12)
Financial Accounting (Mil)	144(12) P or
Statistics (Mil)	144(12)
Public and Development Management (Mil)	144(12)
Computer Information Systems (Mil)	154(12) or
English Studies (Mil)	144(12)

Note regarding requisite modules

You can take a module of a specific subject in a specific year only if you have met the corequisite (C), prerequisite (P) and/or prerequisite pass (PP) requirements of that particular module.

5.2.3. HCMS in Security and Africa Studies

Admission Requirements

Admission requirements with a Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for HCMS studies, you may apply for this programme if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with a D aggregate in the final matriculation examination; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission requirements with a National Senior Certificate (NSC) (as from 2009)

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for HCMS studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with:
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and
  - a mark of at least 4 (50% - 59%) in each of the four school subjects from the list of designated university admission subjects; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Selection

- You can be admitted to the HCMS only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.
- Please direct your application to your division service (Army, Navy, SAMHS or Air Force).
- Detailed information regarding application procedures are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

Notes

1. Military Geography is compulsory for Defence Intelligence students.
2. You can take a specific module in a specific year only if the class and examination timetables allow it.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core part of the HCMS programme.

Semester credits

Semester credits	Semester 1	Semester 2
Compulsory	48	36
Elective	12	36
Total credits available	60	72
Credits required for programme: 120 of 132		

First semester (60 credits)

Compulsory modules

Computer Information Systems (Mil)	114(12)
English Studies (Mil)	114(12)
Military History	114(12)
Political Science (Mil)	114(12)

Elective modules

Choose one of the modules from the table below.

Economics (Mil)	114(12)
Military Geography	114(12)

Second semester (72 credits)

Compulsory modules

Military History	144(12)
Political Science (Mil)	144(12)

Elective modules

Choose three of the modules from the table below.

Economics (Mil)	144(12)
English Studies (Mil)	144(12)
Military Geography	144(12)
Security Law (Mil)	144(12)

5.2.4. HCMS in Military Technology

Admission Requirements

Admission requirements with Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for HCMS studies, you may apply for this

programme if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with a D aggregate in the final matriculation examination and with a D symbol (higher grade) or a B symbol (standard grade) in both Mathematics and Physical Science for the final matriculation examination; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

- If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission requirements with a National Senior Certificate (NSC) (as from 2009)

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for HCMS studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with:
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and
  - a mark of at least 4 (50% - 59%) in each of the four school subjects (excluding Mathematics and Physical Science – see next bullet) from the list of designated university admission subjects; and
  - a mark of at least 4 (50% - 59%) in Mathematics and a mark of at least 4 (50% - 59%) in Physical Science; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Selection

- You can be admitted to the HCMS only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.
- Please direct your application to your Service (Army, Navy, SAMHS or Air Force).
- Detailed information regarding application procedures are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

Notes

1. Aeronautical Science (Mil) is compulsory for SAAF Pilot/Navigator students.
2. Military Geography is compulsory for Army students.
3. Nautical Science is compulsory for Navy Combat Officer students.
4. You can take a module of a specific subject in a specific year only if you have met the corequisite (C), prerequisite (P) and/or prerequisite pass (PP) requirements of that particular module.
5. You can take a specific module in a specific year only if the class and examination timetables allow it.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core part of the HCMS programme.

Semester credits

Semester credits	Semester 1	Semester 2
Compulsory	60 48	48 36
Elective	12	36
Total credits available	72 60	84 72
Credits required for programme: Air Crew 120 of 156 Rest 120 of 132		

First semester (72/60 credits)

Compulsory modules

Computer Information Systems (Mil)	114(12)
English Studies (Mil)	114(12)
Physics (Mil)	114(12) C, C

Choose one of the options from the table below. The two Aeronautical Science modules count as one.

Aeronautical Science (Mil)	114(12) and 124(12)
Military Geography	114(12)
Nautical Science	112(6) and 122(6)

Elective module

Mathematics (Mil)	112(8), 122(6)

Second semester (84/72 credits)

Compulsory modules

Physics (Mil)	144(12) C, C, P

Choose one of the options from the table below. The two Aeronautical Science modules count as one.

Aeronautical Science (Mil)	144(12) and 154(12)
Military Geography	144(12)
Nautical Science	144(12)

Elective modules

Choose any three modules from the table below.

Mathematics (Mil)	142(8) P; 152(6) P
Computer Information Systems (Mil)	144(12) PP
Statistics (Mil)	144(12)

5.2.5. HCMS in Technology and Defence Management

Admission Requirements

Admission requirements with a Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for HCMS studies, you may apply for this programme if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with a D aggregate in the final matriculation examination with an E symbol (higher grade) or a D symbol (standard grade) in both Mathematics and Physical Science for the final matriculation examination; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

- If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support such as academic literacy development, academic writing and reading and study skills.

Admission requirements with a National Senior Certificate (NSC) (as from 2009)

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for HCMS studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with:
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and

  - a mark of at least 4 (50% - 59%) in each of the four school subjects (excluding Mathematics and Physical Science – see next bullet) from the list of designated university admission subjects; and
  - a mark of at least 3 (40% - 49%) in Mathematics and a mark of at least 3 (40% - 49%) in Physical Science; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Selection Process

- You can be admitted to the HCMS only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.
- Please direct your application to your Service (Army, Navy, SAMHS or Air Force).
- Detailed information regarding application procedures are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

Notes

1. Aeronautical Science (Mil) is compulsory for SAAF Pilot/Navigator students.
2. Military Geography is compulsory for Army students.
3. Nautical Science is compulsory for Navy Combat Officer students.
4. You can take a module of a specific subject in a specific year only if you have met the corequisite (C), prerequisite (P) and/or prerequisite pass (PP) requirements of that particular module.
5. You can take a specific module in a specific year only if the class and examination timetables allow it.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core part of the HCMS programme.

Semester credits

Semester credits		Semester 1	Semester 2
Compulsory:	Air Crew	60	48
	Rest	48	36
Elective:	Air Crew	12	36
	Rest	24	48
Total credits available:		72	84
Credits required for programme: 120 of 156			

First semester (72 credits)

Compulsory modules

Computer Information Systems (Mil)	114(12)
English Studies (Mil)	114(12)
Physics (Mil)	124(12) C

Choose one of the options from the table below. The two Aeronautical Science modules count as one.

Aeronautical Science (Mil)	114(12) and 124(12) or
Military Geography	114(12) or
Nautical Science	112(6) and 122(6)

Elective modules

Choose one or both of the modules from the table below.

Mathematics (Mil)	124(12)
Military History	114(12) (not available to Aeronautical Science students)

Second semester (84 credits)

Compulsory modules

Physics (Mil)	154(12) C

Choose one of the following options. See the notes above for additional remarks.

Aeronautical Science (Mil)	144(12) and 154(12)
Military Geography	144(12)
Nautical Science	144(12)

Elective modules

Choose three or four options from the table below.

Statistics (Mil)	144(12)
Military History	144(12) (not available to Aeronautical Science students)
Military Management	144(12)
Computer Information Systems (Mil)	144(12) PP
Economics (Mil)	144(12)
Security Law (Mil)	144(12)

6. Bachelor of Military Science (BMil)

6.1. BMil in Human and Organisation Development

Admission Requirements

Admission requirements with a Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with a D aggregate in the final matriculation examination; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

- If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission requirements with a National Senior Certificate (NSC) (as from 2009)

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with:
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and
  - a mark of at least 4 (50% - 59%) in each of the four school subjects from the list of designated university admission subjects; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Please Note:

- If you have achieved an average between 50% and 55% for the National Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission by way of the Preparatory Certificate in Military Studies

If you do not fully meet the above-mentioned minimum requirements for degree studies, but you do have the necessary study potential, the Preparatory Certificate in Military Studies (PCMS) offers you an opportunity as prospective student to be admitted to the BMil degree programmes by completing this certificate programme successfully.

Selection

- You will be admitted to the BMil degree programme only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.
- Please direct your applications for admission to the BMil to your specific Service (Army, Navy, SAMHS or Air Force).
- Detailed information regarding application procedures are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

Notes

1. You can take a module of a specific subject in a specific year only if you have met the corequisite (C), prerequisite (P) and/or prerequisite pass (PP) requirements of that particular module.
2. You can take a module of a specific subject in a specific year only if you have passed at least half the credit units of a single preceding year of that specific subject.
3. You can take a specific module in a specific year only if the class and examination timetables allow it.
4. Military Ethics is a prerequisite for Military Leadership.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core part of the BMil degree programme and is applicable to residential students only.

FIRST YEAR (136 CREDITS)

Compulsory modules

First semester

Computer Information Systems (Mil)	114(12)
Criminal and Military Law	114(12)
English Studies (Mil)	114(12)
Industrial Psychology (Mil)	114(12), 124(12)
Military Ethics	114(8)

Second semester

Criminal and Military Law	144(12)
English Studies (Mil)	144(12)
Industrial Psychology (Mil)	144(12)
Military Leadership	144(8) P
Military Management	144(12)
Public and Development Management (Mil)	144(12)

SECOND YEAR (128 CREDITS)

Compulsory modules

First semester

Contract Law (Mil)	214(16)
Industrial Psychology (Mil)	214(16)
Interpretation of statutes (Mil)	214(16)
Public and Development Management (Mil)	214(16)

Second semester

Applied Commercial Law	244(16) C
Industrial Psychology (Mil)	244(16), 254(16)
Public and Development Management (Mil)	244(16)

THIRD YEAR (144 CREDITS)

Compulsory modules

First semester

Applied Commercial Law	314(24)
Industrial Psychology (Mil)	314(24)
Public and Development Management (Mil)	324(24)

Second semester

Industrial Psychology (Mil)	344(24)
Military Management	344(24)
Public and Development Management (Mil)	344(24)

Programme credits 408

6.2. BMil in Organisation and Resource Management

Admission Requirements

Admission requirements with a Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with:
  - a D aggregate in the final matriculation examination; and
  - an E symbol (higher grade) or a D symbol (standard grade) in Mathematics for the final matriculation examination; or
  - Mathematics at any institution of higher learning at an appropriate level; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

- If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support.

Admission requirements with a National Senior Certificate (as from 2009)

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with:
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and
  - a mark of at 3 (40% - 49%) in Mathematics or 4 (50% - 59%) Mathematical Literacy from the list of designated university admission subjects for the final matriculation exemption; or
  - a mark of at least 3 (40% - 49%) in Mathematics or a mark of at least 4 (50% - 59%) in Mathematical Literacy at any institution of higher teaching at an appropriate level; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Please Note:

- If you have achieved an average between 50% and 55% for the National Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development,

academic writing and reading and study skills.

Admission by way of the Preparatory Certificate in Military Studies

If you do not fully meet the above-mentioned minimum requirements for degree studies, but you do have the necessary study potential, the Preparatory Certificate in Military Studies (PCMS) offers you an opportunity as a prospective student to be admitted to the BMil degree programmes by completing this certificate programme successfully.

Selection

- You will be admitted to the BMil degree programme only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.
- Please direct your applications for admission to the BMil to your specific Service (Army, Navy, SAMHS or Air Force).
- Detailed information regarding application procedures are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

Notes

1. You can take a module of a specific subject in a specific year only if you have met the corequisite (C), prerequisite (P) and/or prerequisite pass (PP) requirements of that particular module.
2. You can take a module of a specific subject in a specific year only if you have passed at least half the credit units of a single preceding year of that specific subject.
3. You can take a specific module in a specific year only if the class and examination timetables allow it.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core part of the BMil degree programme and is applicable to residential students only.

FIRST YEAR (120/144 CREDITS)

First semester

Compulsory modules

Computer Information Systems (Mil)	114(12)
Economics (Mil)	114(12)
English Studies (Mil)	114(12)
Financial Accounting (Mil)	114(12)
Military Management	114(12)

Elective modules

Criminal and Military Law	114(12)

Second semester

Economics (Mil)	144(12)
English Studies (Mil)	144(12) or
Computer Information Systems (Mil)	154(12)
Financial Accounting (Mil)	144(12) P or
Statistics (Mil)	144(12)
Military Management	144(12)
Public and Development Management (Mil)	144(12)

Elective modules

Criminal and Military Law	144(12)

SECOND YEAR (128 CREDITS)

Elective modules

Choose any three of the following modules: Economics (Mil), Auditing (Mil), Military Management and Public

and Development Management (Mil). In the first semester, you must take Contract Law, and in the second semester you must take Industrial Psychology or Applied Commercial Law. Please note that the subjects you have chosen in the first semester must be taken in the second semester, too.

First semester

Auditing (Mil)	214(16)
Contract Law (Mil)	214(16)
Economics (Mil)	214(16) PP, PP
Military Management	214(16)
Public and Development Management (Mil)	214(16)

Second semester

Applied Commercial Law	244(16) C
Auditing (Mil)	244(16)
Economics (Mil)	244(16)
Industrial Psychology (Mil)	244(16)
Military Management	244(16)
Public and Development Management (Mil)	244(16)

THIRD YEAR (144 CREDITS)

Elective modules

Continue with any three subjects taken in the second year of the Organisation and Resource Management programme.

First semester

Economics (Mil)	314(24)
Management Accounting (Mil)	314(24)
Military Management	314(24)
Public and Development Management (Mil)	314(24)

Second semester

Economics (Mil)	344(24)
Management Accounting (Mil)	344(24) P
Military Management	344(24)
Public and Development Management (Mil)	344(24)

Programme credits 392/416

6.3. BMil in Security and Africa Studies

Admission Requirements

Admission requirements with a Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with:
  - a D aggregate in the final matriculation examination; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

- If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development,

academic writing and reading and study skills.

Admission requirements with a National Senior Certificate (as from 2009)

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and
  - a mark of at least 4 (50% - 59%) in each of the school subjects from the list of designated university admission subjects; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Please Note:

- If you have achieved an average between 50% and 55% for the National Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission by way of the Preparatory Certificate in Military Studies

If you do not fully meet the above-mentioned minimum requirements for degree studies, but you do have the necessary study potential, the Preparatory Certificate in Military Studies (PCMS) offers you an opportunity as a prospective student to be admitted to the BMil degree programmes by completing this certificate programme successfully.

Selection

- You will be admitted to the BMil degree programme only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.
- Please direct your applications for admission to the BMil to your specific Service (Army, Navy, SAMHS or Air Force).
- Detailed information regarding application procedures are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

Notes

1. You can take a module of a specific subject in a specific year only if you have met the corequisite (C), prerequisite (P) and/or prerequisite pass (PP) requirements of that particular module.
2. You can take a module of a specific subject in a specific year only if you have passed at least half the credit units of a single preceding year of that specific subject.
3. You can take a specific module in a specific year only if the class and examination timetables allow it.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core part of the BMil degree programme and is applicable to residential students only.

FIRST YEAR (120 CREDITS)

Compulsory modules

First semester

Computer Information Systems (Mil)	114(12)
English Studies (Mil)	114(12)
Military History	114(12)
Political Science (Mil)	114(12)

Second semester

English Studies (Mil)	144(12)
Military History	144(12)
Political Science (Mil)	144(12)
Security Law (Mil)	144(12)

Elective modules

Choose one module per semester from the tables below. TE students must take Economics (Mil).

First semester

Economics (Mil)	114(12)
Military Geography	114(12)

Second semester

Economics (Mil)	144(12)
Military Geography	144(12)

SECOND YEAR (128 CREDITS)

Compulsory modules

First semester

Military History	214(16) P
Military Management	114(12)
Political Science (Mil)	214(16) P
Strategic Studies	214(16)

Second semester

Military Geography	244(20)
Military History	244(16)
Political Science (Mil)	244(16) P
Strategic Studies	244(16)

THIRD YEAR (128 CREDITS)

Compulsory modules

First semester

Industrial Psychology (Mil)	214(16)

Second semester

Industrial Psychology (Mil)	254(16)

Elective modules

Choose two modules per semester from the tables below.

First semester

Military History	314(24) P
Political Science (Mil)	314(24) P, P
Strategic Studies	314(24)

Second semester

Military History	344(24)
Political Science (Mil)	344(24) P, P
Strategic Studies	344(24)

Programme credits 376

6.4. BMil in Defence Intelligence Studies

Admission requirements with a Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with:
- a D aggregate in the final matriculation examination; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

- If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission requirements with a National Senior Certificate (as from 2009)

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and
  - a mark of at least 4 (50% - 59%) in each of the school subjects from the list of designated university admission subjects; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Please Note:

- If you have achieved an average between 50% and 55% for the National Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission by way of the Preparatory Certificate in Military Studies

If you do not fully meet the above-mentioned minimum requirements for degree studies, but you do have the necessary study potential, the Preparatory Certificate in Military Studies (PCMS) offers you an opportunity as a prospective student to be admitted to the BMil degree programmes by completing this certificate programme successfully.

Selection

You will be admitted to the BMil degree programme only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.

Please direct your applications for admission to the BMil to your specific Service (Army, Navy, SAMHS or Air Force).

Detailed information regarding application procedures is available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; bassomn71@sun.ac.za.

Notes

1. You can take a module of a specific subject in a specific year only if you have met the corequisite (C), prerequisite (P) and/or prerequisite pass (PP) requirements of that particular module.
2. You can take a module of a specific subject in a specific year only if you have passed at least half the credit units of a single preceding year of that specific subject.
3. You can take a specific module in a specific year only if the class and examination timetables allow it.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core part of the BMil degree programme and is applicable to residential students only.

Please Note:

This programme features a core curriculum centred on Intelligence as the primary major subject. You have the flexibility to select a second major from elective modules. In the third year of the programme, Operational Psychology and Psychological Warfare branches from Industrial Psychology. Note that completing modules in Industrial Psychology, Operational Psychology, and Psychological Warfare does not automatically qualify you for postgraduate studies in Psychology or a related honours programme in the field, as there are specific academic admission requirements from Stellenbosch University. Please consult the Military Science Yearbook part (Part 13).

Outcome of the programme

The following four directions will be the outcome of the programme, with Intelligence Studies as the one major subject:

Intelligence	**Counterintelligence**	**Collection**	**Analysis**
Introduction to Intelligence 114(12)	Introduction to Counterintelligence 114(12)	Intelligence Collection 144(12)	Intelligence Research Methodology and Products 214(16)
	Introduction to Covert Action 144(12)		Intelligence Analysis 244(16)
General Intelligence History 224(16)	Counterintelligence Threats 314(16)		Advanced Intelligence Analysis 344(24) *P*
South African Intelligence History 254(16)			Strategic Intelligence and Intelligence Management 344(24)
Intelligence Mandate and Regulatory Framework 254(16)			
Contemporary & Comparative Intelligence 314(24)			

FIRST YEAR (120 CREDITS)

Compulsory modules

First semester

Computer Information Systems (Mil)	114(12)
English Studies (Mil)	114(12)
Introduction to Intelligence	114(12)
Introduction to Counterintelligence	114(12)

Second semester

Computer Information Systems (Mil)	144(12) PP or
Computer Information Systems (Mil)	154(12)
English Studies (Mil)	144(12)
Introduction to Collection	144(12)
Introduction to Covert Action	144(12)

Elective modules

Choose one module as an elective for each semester from the tables below, completing one elective module in semester I and the other in semester 2.

First semester

Political Science (Mil)	114(12)
Military Geography	114(12)
Military History	114(12)
Industrial Psychology (Mil)	114(12)

Second semester

Political Science (Mil)	144(12)
Military Geography	144(12)
Military History	144(12)
Industrial Psychology (Mil)	144(12)

SECOND YEAR (120/132 CREDITS)

Compulsory modules

First semester

Intelligence Research Methodology & Products	214(16)
General Intelligence History	224(16)
Criminal and Military Law (Mil)	114(12)

Second semester

South African Intelligence History	254(16)
Intelligence Mandate and Regulatory Framework	254(16)
Intelligence Analysis	244(16)

Elective modules

Choose one module as an elective each semester from the tables below, completing one elective module in semester 1 and the other in semester 2. The elective must follow from the 1st year as second major, except for Strategic Studies as second major, for which Political Science needed to be taken in the 1st year.

First semester

Political Science (Mil)	214(16) P
Military History	214(16) P
Strategic Studies	214(16)
Industrial Psychology (Mil)	214(16)
Military Geography	214(20)

Second semester

Political Science (Mil)	244(16) P
Military History	244(16)
Strategic Studies	244(16)
Industrial Psychology (Mil)	254(16)
Military Geography	244(20)

THIRD YEAR (128 CREDITS)

Compulsory modules

First semester

Contemporary and Comparative Intelligence	314(24)
Counterintelligence Threats	314(16)

Second semester

Advanced Intelligence Analysis	344(24)
Strategic Intelligence and Intelligence Management	344(24)

Elective modules

Choose one module as an elective each semester from the tables below, completing one elective module in semester 1 and the other in semester 2. The elective must follow from the 1st and 2nd year as second major.

First semester

Political Science (Mil)	314(24) P, P
Military History	314(24) P
Strategic Studies	314(24)
Operational Psychology	324(24)
Military Geography	314(24)

Second semester

Political Science (Mil)	344(24) P, P
Military History	344(24)
Strategic Studies	344(24)
Psychological Warfare	354(24)
Military Geography	344(24)

Programme credits 380/388

6.5. BMil in Technology

Admission Requirements

Admission requirements with a Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with:
  - a D aggregate in the final matriculation examination; and
  - a D symbol (higher grade) or a B symbol (standard grade) in both Mathematics and Physical Science for the final matriculation examination; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

- If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission requirements with a National Senior Certificate (as from 2009)

Please note that the first final examination for the NSC was taken at the end of 2008. If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and
  - a mark of at least 4 (50% - 59%) in each of the school subjects (excluding Mathematics and Physical Science – see next bullet) from the list of designated university admission subjects; and
  - a mark of at least 4 (50% - 59%) in Mathematics and a mark of at least 4 (50% - 59%) in Physical Science; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Please Note:

- If you have achieved an average between 50% and 55% for the National Senior Certificate, you may

be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission by way of the Preparatory Certificate in Military Studies

If you do not fully meet the above-mentioned minimum requirements for degree studies, but you do have the necessary study potential, the Preparatory Certificate in Military Studies (PCMS) offers you an opportunity as a prospective student to be admitted to the BMil degree programmes by completing this certificate programme successfully.

Selection

- You will be admitted to the BMil degree programme only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.
- Please direct your applications for admission to the BMil to your specific Service (Army, Navy, SAMHS or Air Force).
- Detailed information regarding application procedures are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

Notes

1. Aeronautical Science (Mil) is compulsory in the first year and optional in the second and third years for SAAF Pilot/Navigator students.
2. Military Technology is compulsory in the second and third years for SAAF Pilot/Navigator students.
3. Military Geography is compulsory for Army students.
4. Nautical Science is compulsory for Navy Combat Officer students.
5. You can take a module of a specific subject in a specific year only if you have met the corequisite (C), prerequisite (P) and/or prerequisite pass (PP) requirements of that particular module.
6. You can take a module of a specific subject in a specific year only if you have passed at least half the credit units of a single preceding year of that specific subject.
7. You can take a specific module in a specific year only if the class and examination timetables allow it.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core part of the BMil degree programme and is applicable to residential students only.

FIRST YEAR (124/148 CREDITS)

Elective modules

One of the following: Aeronautical Science (Mil), Military Geography or Nautical Science; as well as all the other subjects, for full-time studies.

First semester

Aeronautical Science (Mil)	114(12) and 124(12)
Military Geography	114(12)
Nautical Science	112(6) and 122(6)
Computer Information Systems (Mil)	114(12)
English Studies (Mil)	114(12)
Mathematics (Mil)	112(8) and 122(6)
Physics (Mil)	114(12) C, C

Second semester

Aeronautical Science (Mil)	144(12) and 154(12)
Military Geography	144(12)
Nautical Science	144(12)
Computer Information Systems (Mil)	144(12) PP
Mathematics (Mil)	142(8) P and 152(6) P
Physics (Mil)	144(12) C, C, P
Statistics (Mil)	144(12)

SECOND YEAR (120 CREDITS)

Elective modules

- Choose three electives in total, one of which must be the specific service elective as specified below for SAAF Pilot/Navigator students, SA Army students and SA Navy students.
- Military Technology is compulsory for SAAF Pilot/Navigator students, and optional for non-Pilot/Navigator students.
- Military Geography is compulsory for SA Army students.
- Nautical Science is compulsory for SA Navy students.
- Aeronautical Science, Military Geography and Nautical Science are mutually exclusive.

First semester

Aeronautical Science (Mil)	212(10) P, P, P, P and 222(10) P, P, P, P
Computer Information Systems (Mil)	214(20) PP
Mathematics (Mil)	212(10) PP, PP and 222(10) PP, PP
Military Technology	212(10) P, P and 222(10) P, P, P, P
Military Geography	214(20)
Nautical Science	214(20)
Physics (Mil)	212(10) PP and 222(10) C

Second semester

Aeronautical Science (Mil)	244(20)
Computer Information Systems (Mil)	244(20) PP
Mathematics (Mil)	242(10) C, PP, PP and 252(10) C, PP, PP
Military Technology	242(10) P, P, P, P, P and 252(10) P, P, P, P, P
Military Geography	244(20)
Nautical Science	244(20)
Physics (Mil)	242(10) PP, PP, PP and 252(10) PP

THIRD YEAR (120 CREDITS)

Compulsory module

- Military Management

First semester

Military Management	314(24)

Elective modules

- Choose two electives per semester, one of which must be the specific service elective as specified below for SAAF Pilot/Navigator students, SA Army students and SA Navy students.
- Military Technology 312, 322, 342 and 352 are compulsory for SAAF Pilot/Navigator students.
- Military Technology 314 and 344 are optional for non-Pilot/Navigator students.
- Military Geography is compulsory for SA Army students.
- Nautical Science is compulsory for SA Navy students.
- Aeronautical Science, Military Geography and Nautical Science are mutually exclusive.

First semester

Aeronautical Science (Mil)	314(24) P, P, P
Computer Information Systems (Mil)	314(24) P
Mathematics (Mil)	312(12) C, PP, PP, PP, PP and 322(12) C, PP, PP, PP, PP
Military Technology	312(12) P, P and 322(12) P, P
Military Geography	314(24)

Nautical Science	314(24)
Military Technology	314(24) PP
Physics (Mil)	312(12) PP and 372(12) PP, P, P or 322(12) PP and 332(12) C, PP
Military Management	314(24)

Second semester

Aeronautical Science (Mil)	344(24) P
Computer Information Systems (Mil)	344(24) PP
Mathematics (Mil)	342(12) C, C, PP, PP, PP, PP and 352(12) C, C, PP, PP, PP, PP or 362(12) C, C, PP, PP, PP, PP and 363(12) C, C, PP, PP, PP, PP
Military Geography	344(24)
Military Technology	342(12) P and 352(12) P
Nautical Science	344(24)
Military Technology	344(24) P
Physics (Mil)	342(12) PP and 352(12) PP

Programme credits 364 or 388

6.6. BMil in Technology and Defence Management

Admission Requirements

Admission requirements with a Senior Certificate (up until 2008)

If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a matriculation certificate or exemption certificate issued by the Matriculation Board with:
  - a D aggregate in the final matriculation examination; and
  - an E symbol (Higher Grade) or a D symbol (Standard Grade) in both Mathematics and Physical Science for the final matriculation examination; or
- a provisional exemption certificate, based on age (23 years and older); or
- a provisional exemption certificate from the matriculation examination, issued by the Matriculation Board to foreign students.

Please Note:

- If you have achieved an average between 50% and 55% for the Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission requirements with National Senior Certificate as from 2009

If the Faculty of Military Science Selection Board has selected you for undergraduate studies, you may apply for this programme if you possess one of the following:

- a National Senior Certificate (NSC) as certified by Umalusi, with
  - a mark of at least 4 (50% - 59%) in Afrikaans or English; and
  - a mark of at least 4 (50% - 59%) in each of the school subjects (excluding Mathematics and Physical Science – see next bullet) from the list of designated university admission subjects; and
  - a mark of at least 3 (40% - 49%) in Mathematics and a mark of at least 3 (40% - 49%) in Physical Science; or
- a certificate of full or provisional exemption from the matriculation examination, issued by the Matriculation Board to students from foreign countries or with foreign school qualifications.

Please Note:

- If you have achieved an average between 50% and 55% for the National Senior Certificate, you may be required to accept special forms of academic support, such as academic literacy development, academic writing and reading and study skills.

Admission by way of the Preparatory Certificate in Military Studies

If you do not fully meet the above-mentioned minimum requirements for degree studies, but you do have the necessary study potential, the Preparatory Certificate in Military Studies (PCMS) offers you an opportunity as a prospective student to be admitted to the BMil degree programmes by completing this certificate programme successfully.

Selection

- You will be admitted to the BMil degree programme only if the Faculty of Military Science Selection Board has selected you for undergraduate studies.
- Please direct your applications for admission to the BMil to your specific Service (Army, Navy, SAMHS or Air Force).
- Detailed information regarding application procedures are available from the Faculty Administrator at: Faculty of Military Science, Private Bag X2, Saldanha 7395; 022 702 3085; basson71@sun.ac.za.

Notes

1. Aeronautical Science (Mil) is compulsory for SAAF Pilot/Navigator students.
2. Aeronautical Science (Mil) 124, 154 are compulsory for SAAF Pilot/Navigator students in the place of Military History 114 and 144.
3. Military Geography is compulsory for Army students.
4. Nautical Science is compulsory for Navy Combat Officer students.
5. You can take a module of a specific subject in a specific year only if you have met the corequisite (C), prerequisite (P) and/or prerequisite pass (PP) requirements of that particular module.
6. You can take a module of a specific subject in a specific year only if you have passed at least half the credit units of a single preceding year of that specific subject.
7. You can take a specific module in a specific year only if the class and examination timetables allow it.

Military Professional Development

Military Professional Development (12 credits), presented over two semesters, is a compulsory DoD activity accredited as a core part of the BMil degree programme and is applicable to residential students only.

FIRST YEAR (144 CREDITS)

Elective modules

First semester

One of the following: Aeronautical Science (Mil), Military Geography or Nautical Science; as well as all the other subjects.

Aeronautical Science (Mil)	114(12) or
Military Geography	114(12) or
Nautical Science	112(6) and 122(6)
Military History	114(12) or
Aeronautical Science (Mil)	124(12)
Computer Information Systems (Mil)	114(12)
Physics (Mil)	124(12) C
English Studies (Mil)	114(12)
Mathematics (Mil)	124(12)

Second semester

One of the following: Aeronautical Science (Mil), Military Geography or Nautical Science; and one of the following: Computer Information Systems (Mil) or Economics (Mil) or Security Law (Mil); and all the other modules listed below.

Aeronautical Science (Mil)	144(12) or
Military Geography	144(12) or
Nautical Science	144(12)
Military History	144(12) or

Aeronautical Science (Mil)	154(12)
Computer Information Systems (Mil)	144(12) PP
Economics (Mil)	144(12) or
Security Law (Mil)	144(12)
Physics (Mil)	154(12) C
Military Management	144(12)
Statistics (Mil)	144(12)

SECOND YEAR (120/128 CREDITS)

Elective modules

One of the following: Aeronautical Science (Mil), Military Geography or Nautical Science. Military Technology 254 and two of the following: Computer Information Systems (Mil), Military Management, and either Military History or Strategic Studies.

First semester

Aeronautical Science (Mil)	212(10) P, P, P, P and 222(10) P, P, P, P or
Military Geography	214(20) or
Nautical Science	214(20)
Military Management	214(16)
Military History	214(16) P, or
Strategic Studies	214(16)
Computer Information Systems (Mil)	214(20) PP

Second semester

Aeronautical Science (Mil)	244(20) or
Military Geography	244(20) or
Nautical Science	244(20)
Military Management	244(16)
Military History	244(16) or
Strategic Studies	244(16)
Computer Information Systems (Mil)	244(20) PP
Military Technology	254(16)

THIRD YEAR (144 CREDITS)

Elective modules

One of the following: Aeronautical Science (Mil), Military Geography or Nautical Science; and two of the rest.

First semester

Aeronautical Science (Mil)	314(24) P, P, P or
Military Geography	314(24) or
Nautical Science	314(24)
Military Management	314(24)
Military History	314(24) P or
Strategic Studies	314(24)
Computer Information Systems (Mil)	314(24) P

Second semester

Aeronautical Science (Mil)	344(24) P or

Military Geography	344(24) or
Nautical Science	344(24)
Military Management	344(24)
Military History	344(24) or
Strategy Studies	344(24)
Computer Information Systems (Mil)	344(24) PP

Programme credits 408/416

Postgraduate programmes

1. Postgraduate diplomas

1.1. Postgraduate Diploma in Defence Studies (PGDip Defence Studies)

Admission Requirements

A BMil degree (or equivalent qualification), for which a final mark of 60% was achieved in the final year of study.

Duration of Programme

The programme is presented on a modular basis over two years. You must attend all scheduled block modules.

Programme Content

Subject to consultation with the lecturers at the School for Security and Africa Studies.

Compulsory Modules

Strategic Theory	13964 744(20)
The Evolution of Warfare	13965 744(20)
Geopolitics and African Security	13963 744(20)
Research Methodology	13966 744(20)
Project Management	51993 744(20)
Human Resource Management	13962 744(20)

Electives: none

1.1. Postgraduate Diploma in Military Legal Studies (PGDip Military Law)

Admission Requirements

Only individuals in possession of an LLB degree or equivalent qualification may be admitted to the PGDip Military Law programme.

The following individuals may apply:

- Fulltime personnel (military and civil) employed in the Department of Defence, adhering to the prescribed admission requirements. Military personnel members do not have to adhere to specific military training requirements.
- Non-military students with an interest in military legal studies, even without any military or armed forces background.

Duration of Programme

The programme is presented on a modular basis over two years. You must attend all scheduled block modules.

Programme Content

Programme Structure

Subject to consultation with the lecturers at the Mercantile and Public Law (Mil) Department.

Compulsory Modules

Cyber Security Law	14360 744(30)
Advanced International Law for Military Operations	14361 744(30)
Advanced Operational Law	14359 744(30)
Peace Operations Law	14363 744(30)

Electives: none

2. Honours degrees

2.1. Bachelor of Military Science with Honours (BMilHons)

This degree is conferred subject to the following provisions:

- You have obtained a BMil degree at Stellenbosch University, or any other bachelor's degree approved by Senate for this purpose.
- Upon written request, you have been allowed by Senate (or the Executive Committee acting on Senate's behalf) to register for the BMilHons programme. AND
- You have followed the prescribed honours programme for at least one year (after having obtaining the above-mentioned bachelor's degree) at Stellenbosch University, and you have completed the relevant examination successfully.

2.1.1. BMilHons in Industrial Psychology

Admission Requirements

Subject to consultation with the lecturers in the Department of Industrial Psychology (Mil), the following are required:

- a BMil degree in Human and Organisation Development, with
  - a final mark of at least 60% in Research Methodology and Psychometrics; and
  - a final mark of at least 60% in Organisational Psychology.

Duration of Programme

The programme is presented over one year full-time or two years part-time (depending on the availability of the lecturers). You must attend all scheduled block modules.

Compulsory modules

Military Career Psychology	66648 711(15)
Military Psychology	66605 712(15)
Human Resource Management	48054 713(15)
Organisational Psychology	66621 715(15)
Research Methodology and Psychometry	66656 742(15)
Research Assignment	12974 742(30)
Workplace Wellness	14144 714(15)

2.1.2. BMilHons in Military Geography

Admission Requirements

Subject to consultation with the lecturers in the Department of Military Geography, the following is required:

- a BMil degree (or equivalent qualification) with Military Geography as major subject, with a final mark of at least 60% in Military Geography in the final year of study.

Duration of Programme

The programme is presented over one year full-time or two years part-time with regular contact sessions between supervisor and student (depending on the availability of lecturers). You must attend all scheduled block modules.

Programme Content

Compulsory modules

Philosophy and Research Methodology in Geography	14986 742(15)
The Geopolitics of Conflict	14988 742(15)
Sustainable Security: 'Green' Militaries	14979 743(15)
Terrain Analysis and Military Operations	14987 744(15)
Urban Space: Geography and Warfare	14985 745(15)

Applied Military Geoinformatics	14987 746(15)
Research Assignment (Mil Geography) – a theme from the South African military geography environment	66710 747(30)

2.1.3. BMilHons in Military History

Programme Code

15377 778 (120)

Admission Requirements

Subject to consultation with the lecturers at the Department of Military History, the following is required:

- a BMil degree with Military History as major subject, with a final mark of at least 60% in Military History in the final year of study.

Duration of Programme

The programme is presented over one year full-time or two years part-time with regular contact sessions between supervisor and student (depending on the availability of the lecturers). You must attend all scheduled block modules.

Programme Structure

You must complete a capita selecta of three study themes (for 90 credits) and submit a thesis of 90 credits on a theme from the general military history of Africa.

Programme Content

Compulsory modules

Theoretical History	10137 771(60)
Theory and Practice of Military History	11688 743(10)
A Theme from General Military History OR	14247 744(20) OR
A Theme from the Military History of Africa	11689 745(20)
Research Assignment	11689 745(30)

2.1.4. BMilHons in Military Management

Admission Requirements

Subject to consultation with the lecturers at the School of Defence Organisation and Resource Management, one of the following degrees is required:

- a BMil degree in Organisation and Resource Management or Technology and Defence Management, with a final mark of 60% in Military Management in the final year; or
- any other relevant degree that has been approved for this purpose by the Programme Coordinator, for which you have obtained a final mark of at least 60% in the final year.

Duration of Programme

The programme is presented over one year full-time or two years part-time with regular contact sessions between supervisor and student (depending on the availability of the lecturers). You must attend all scheduled block modules.

Programme Structure

The programme consists of six compulsory modules. You must obtain at least 120 credits.

Programme Content

You must have passed Research Methodology 744 before you may register for the Research Assignment.

Compulsory modules

Financial Management	51047 744(20)
Logistics Management	50407 741(20)
Research Assignment (ORM)	12975 742(30)

Research Methodology (Organisation and Resource Management)	11696 744(15)
Strategic Management	59587 743(20)
Project Management	51993 744(20)

2.1.5. BMilHons in Organisation and Resource Management

Admission Requirements

Subject to consultation with the lecturers at the School of Defence Organisation and Resource Management, one of the following degrees is required:

- a BMil degree in Organisation and Resource Management, with a minimum final mark of 60% in the final year in two of the following majors: Military Management, Economics, Management Accounting or Public and Development Management; or
- any other relevant B degree that has been approved for this purpose by the Programme Coordinator, for which you achieved a final mark of at least 60% in the relevant final-year majors.

Duration of Programme

The programme is presented over one year full-time or two years part-time with regular contact sessions between supervisor and student (depending on the availability of the lecturers). You must attend all scheduled block modules.

Programme Structure

The programme consists of Research Methodology and a Research Assignment as compulsory modules, your choice among the elective modules listed below (selected in consultation with the Programme Coordinator) and a research assignment. You must obtain at least 120 credits.

Programme Content

You must have passed Research Methodology 744 before you may register for Research Assignment.

Compulsory modules

Research Methodology (Organisation and Resource Management)	11696 744(15)
Research Assignment	12975 742(30)

Elective modules

Defence Economics	11700 744(15)
Development Management	11698 744(15)
Financial Management	51047 744(20)
International Finance	10554 741(15)
International Trade	11477 742(15)
Labour Relations	51659 743(15)
Logistics Management	50407 741(20)
Macroeconomics	10595 744(15)
Management Accounting Control Systems	11697 744(20)
Microeconomics	10605 744(15)
Public Management	11699 744(15)
Strategic Management	59587 743(20)
Strategic Management Accounting	10710 742(20)
Project Management	51993 744(20)

2.1.6. BMilHons in Public and Development Management (PDM)

Admission Requirements

Subject to consultation with the lecturers at the Faculty of Military Science's Department of Public and Development Management, one of the following is required:

- a BMil in Organisation and Resource Management with a final mark of 60% in the final-year PDM 314 and 344 were taken as majors; or
- BMil in Human and Organisation Development with a final mark of 60% in the final-year PDM 314 and 344 were taken as majors; or
- any applicable bachelor's degree with a final mark of at least 60% for your major in the final year, provided that one of those majors be PDM/Public Administration.

Duration of Programme

The programme is presented over one year full-time or two years part-time with regular contact sessions between supervisor and student (depending on the availability of lecturers). You must attend all scheduled block modules.

Programme Content

You must have passed Research Methodology 745 before you may register for the Research Assignment.

Compulsory modules

Development Management	11698 745(15)
Labour Relations	51659 745(15)
Public Management	11699 745(15)
Public Policy Analysis	10194 745(15)
Civil Military Relations	11702 745(15)
Research Methodology (PDM)	11701 745(15)
Research Assignment	12976 745(30)

2.1.7. BMilHons in Strategic Studies

Admission Requirements

Subject to consultation with the lecturers at the Department of Strategic Studies, one of the following degrees is required:

- a BMil degree, with a final mark of 65% in the final year of study of Strategic Studies as major; or
- another B degree in an approved related field of study, with a final mark of 60% in the final year of study.

Duration of Programme

The programme is presented over one year full-time or two years part-time with regular contact sessions between supervisor and student (depending on the availability of lecturers). You must attend all scheduled block modules.

Programme Content

Compulsory modules

Research Methodology (Strategic Studies)	11690 744(30)
Research Assignment: National Security of Southern African States	11691 744(30)

Elective modules

Choose three of the modules (60 credits) from the table below or two of the modules (40 credits) and an approved module (20 credits) from the field of Military History or Political Science.

Future and Cyber Warfare	13954 744(20)
Gray Zones and Hybrid Conflicts	14534 744(20)
SA Defence Policy since 1994	11693 744(20)

Contemporary Military Theory	13955 744(20)
Contemporary Peace Operations	13965 744(20)
The Evolution of Operational Art	13957 744(20)

2.1.8. BMilHons in Security and Africa Studies

Admission Requirements

Subject to consultation with the lecturers at the School for Security and Africa Studies, the following is required:

- any BMil degree with Political Science (Mil), Military History or Strategic Studies as major, with a final mark of at least 60% in you major in the final year.

Duration of Programme

The programme is presented over one year full-time or two years part-time with regular contact sessions between supervisor and student (depending on the availability of the lecturers). You must attend all scheduled block modules.

Programme Content

Compulsory modules

Research Methodology	51764 741(30)
International Relations Theory	66429 742(20)
South African Political-Military Profile in Africa	66737 743(20
Research Assignment: National Security of African States	66753 746(30)

Elective modules

Choose one of the approved modules (20 credits) from Military History or Strategic Studies.

2.1.9. BMilHons in Technology

Admission Requirements

Subject to consultation with the lecturers at the School of Science and Technology, one of the following degrees is required:

- a BMil degree in Technology with a final mark of at least 60% in each of your two major subjects in the final year;
- a BMil degree in Technology and Defence Management with a final mark of at least 60% in Computer Information Systems, as well as in one of the following in the final year: Aeronautical Science (Mil), Military Geography or Nautical Science; or
- any other relevant bachelor's degree that has been approved for this purpose by the Programme Coordinator, obtained with a final mark of at least 60% in your major subjects.

Duration of Programme

The programme runs over two years (distributed in modules).

Programme Structure

The programme consists of the compulsory Research Assignment (code 66753) of 30 credits and a selection of modules applicable to the focus of the study, the credit total of which should be at least 90. You must obtain at least 50% of the total credits at the Faculty of Military Science.

Programme Content

You must select a majority of modules (that are also relevant) from one specialisation field listed below, which may be supplemented with modules from the other specialisation fields, as discussed with your lecturer. The modules in the Military Technology specialisation field can currently only be supplementary to other specialisation fields. In the specialisation field of Physics, you must follow modules at departments of other faculties, for which you must meet the stipulated requirements of the faculty or faculties concerned.

2.9.1. Physics

General Relativity and Cosmology	11720 771(16)
Applied Computer Physics	11721 771(8)
Applied Wave Theory	11722 771(8)
Computational Physics	11972 772(16)
Nuclear Physics	11973 771(16)
Radiation Detection and Measurement	11974 774(16)
Electromagnetism	10445 776(8)
Digital Signal Processing	11976 775(8)
Radiation Safety (Mil)	13769 773(8)
Experimental Research Project	14143 742(30)

2.9.2. Military Technology

Aircraft Mechanics	21121 771(10)
Aerodynamics	15733 771(10)
Aircraft Design	34304 771(10)

2.9.3. Computer Information Systems

Advanced Programming Applications	11724 771(12)
Network Protocols	11725 771(12)
Network Security	11728 771(12)
Digital Economy and Electronic Commerce	11730 771(12)
ICT Research Methodologies	11732 771(12)
Computer User Interfaces	64998 771(12)
Cyber Forensics	11978 752(12)
Statistical Inference **	11736 771(16)

** If you already have a strong research statistical background, you may choose an alternative module, offered as part of the BMilHons in Technology, subject to the approval of the CIS Department.

2.9.4. Mathematics

Compulsory modules

Computational Mathematics	13766 771(16)
Dynamical Systems	13767 772(16)
Theoretical Fluid Mechanics	13768 773(16)

Elective modules

Partial Differential Equations	10643 719(16)
Probability Theory	11735 771(16)
Statistical Inference	11736 771(16)

2.9.5. Nautical Science

Military Oceanography	12766 771(20)
Operational Oceanography	13570 771(20)
Project Management**	51993 744(20)

**The Project Management module resides under the BMilHons in Organisation and Resource Management.

3. Master's degrees

3.1. Master of Military Science (MMil)

To apply for this degree, you have to possess one of the following:

- a BMilHons degree at Stellenbosch University, or any other honours degree approved by Senate for this purpose;
- upon written request, you have been allowed by Senate (or the Executive Committee acting on Senate's behalf) to register for the MMil programme;
- an approved research curriculum and/or advanced study of at least one year (after having obtained the above-mentioned honours degree) at Stellenbosch University or any other institution approved by Senate; and
- submission of a satisfactory thesis.

3.1.1. MMil in Military Science (Research)

This degree is interdisciplinary, with a broad focus on military and defence-related topics.

Admission Requirements

A BMilHons degree, or a degree in a cognate discipline, with a final average mark of 60%. If you do not possess a BMilHons, you may be requested *to undertake guided reading before you are admitted to the programme.*

Duration of Programme

This MMil programme runs over two years on a part-time basis.

Programme Structure

The degree comprises two phases:

- (1) the successful completion of the module 'Interdisciplinary research methodology' and the successful defence of a research proposal; and
- (2) the completion of a thesis on a military-related topic as well as the submission of a journal article on the same topic.

Programme Contents

Compulsory for all candidates:

- Interdisciplinary research methodology 14563 871(30)
- Thesis 14564 871(150)

3.1.2. MMil in Military Geography

The programme allows for one of two modes of study, both under the guidance of a supervisor.

- Option A: a thesis with prescribed reading in preparation of the research proposal.
- Option B: a structured self-study programme rounded off with a thesis.

3.1.2.1. MMil in Military Geography (Option A)

Admission Requirements

- A BMilHons in Military Geography with an average final mark of at least 60%.

Duration of programme

The programme is presented over one year full-time or two years part-time with regular contact sessions between supervisor and student.

Programme Contents

You select an approved research topic with prescribed reading in preparation of a research proposal in consultation with your supervisor. The prescribed reading must lead to a thesis (180) in which you must exhibit the ability to do independent research on a military-related geographical problem.

3.1.2.2. MMil in Military Geography (Option B)

Admission Requirements

- A BMilHons in Military Geography with an average final mark of at least 60%.

Duration of Programme

The programme is presented on a modular basis (by means of lectures) over two years. You must attend all

scheduled block modules. Offering of this option is subject to the availability of staff.

Programme Contents

Advanced study in the form of a structured, taught programme in military environmental management, which consists of the following modules (total: 180 credits):

- Military Integrated Environmental Management 14565 872(30);
- Environmental Considerations in Military Operations 14566 872(30);
- Sustainable Military Training Area Management 14568 872(30); and
- a thesis 14569 871(90), in which you must demonstrate your ability to do independent research on a military-related geographical problem.

3.1.3. MMil in Military History

The programme allows for one of two modes of study, both under the guidance of a supervisor.

3.1.3.1. MMil in Military History (Option A)

Programme Code

15377 878 (180)

Admission Requirements

Subject to consultation with the lecturers at the Department of Military History, one of the following degrees is required:

- a BMilHons degree in Military History with a final mark of at least 60% in each module; or
- another applicable honours degree in which you have duly performed.

Duration of Programme

If you have already obtained a BMilHons degree, you may complete the programme after one year of full-time or two years of part-time study. If, however, you have another applicable honours degree, you may complete the programme only after two years of full-time study.

Programme Structure

A thesis in Military History (180 credits) in which you demonstrate an ability to undertake independent, scientifically responsible research.

Programme Contents

In consultation with your supervisor, who also consults with the subject group, you must select a research theme from military history for your thesis and present a research proposal for approval at a Faculty of Military Science postgraduate research colloquium. Your thesis must be based on original research and primary source material. You must also submit an article for publication in a DOE-accredited journal or present a paper at a subject conference or a graduate seminar

Thesis (Military History)	14574 872(180)

Assessment and Examination

After completion, your thesis is assessed according to the regulations of Stellenbosch University for master's theses.

3.1.3.2. MMil in Military History (Option B)

Programme Code

15377 878

Admission Requirements

Subject to consultation with the lecturers at the Department of Military History, one of the following degrees is required:

- a BMilHons degree in Military History with a final mark of at least 60% in each module; or
- another applicable honours degree in which you have performed fittingly.

Duration of Programme

If you have already obtained a BMilHons degree, you may complete the programme after one year of full-time or two years of part-time study. If, however, you have another applicable honours degree, you may complete the programme only after two years of full-time study.

Programme Structure

You must complete a *capita selecta* of three study themes (for 90 credits) and submit a thesis of (90 credits)

on a theme from the military history.

Programme Contents

Study themes:

Choose three of the Study Themes from the table below (90 credits).

A Theme from General Military History	14570 872(30)
A Theme from General Military History of Africa	14572 872(30)
A Theme from South African Military History	14571 872(30)
A Theme from War and Society	14573 872(30)

Compulsory modules

Thesis (Military History)	14574 871(90)

Assessment and Examination

The three compulsory modules and the thesis will be assessed accordingly to the regulations of Stellenbosch University for the relevant NQF level.

3.1.4. MMil in Strategic Studies

The programme allows for one of two modes of study, both under the guidance of a supervisor.

- Option A:
- a thesis with prescribed reading in preparation of a research proposal; and
- an oral examination and submission of an article for publication in an accredited journal; or
- the presentation of a paper at a subject conference or a graduate seminar.
- Option B:
- a structured self-study programme rounded off by a thesis.

3.1.4.1. MMil in Strategic Studies (Option A)

Admission Requirements

Subject to consultation with the lecturers at the Department of Strategic Studies, one of the following degrees is required:

- a BMilHons degree in Strategic Studies with a final mark of at least 60% in each subject; or
- another honours degree in an approved related field of study with a final mark of at least 60% in each subject.

Duration of Programme

If you possess a BMilHons degree, you may obtain the MMil degree after one year of full-time or two years of part-time study. If, however, you have another applicable honours degree, you may complete the programme only after two years of full-time study.

Programme Structure

You select a research theme in consultation with your supervisor, who also consults with the subject group. The research proposal should have a definite focus on strategic or security-related matters and, if possible, on Africa.

Programme Contents

A thesis (180 credits) in which you demonstrate the ability to undertake independent, scientifically responsible research.

The thesis must comply with the guidelines of the University.

An oral examination.

Your thesis must be preceded by a literature study leading to a research proposal, which you have presented at a Faculty of Military Science graduate research colloquium.

Publish, or submit for publication, an article on the study theme in a DOE-accredited journal or present a paper at a subject conference or graduate seminar.

3.1.4.2. MMil in Strategic Studies (Option B)

Admission Requirements

Subject to consultation with the lecturers at the Department of Strategic Studies, one of the following

degrees is required:

- an honours degree in Strategic Studies with a final mark of at least 60% in each subject; or
- another honours degree in an approved related field of study with a final mark of at least 60% in each subject.

Duration of Programme

If you possess a BMilHons degree, you may obtain the MMil degree after one year of full-time or two years of part-time study. If, however, you have another applicable honours degree, you may complete the programme only after two years of full-time study.

Programme Structure

If you possess an honours degree, you must complete a capita selecta of three study themes and submit a thesis on the security milieu of Africa.

Please Note:

Depending on your academic background, the Programme Coordinator may allow you to follow post-graduate modules in related fields of study instead of the capita selecta listed below. If you follow these modules at another faculty or institution, you must meet their stipulated requirements.

Programme Contents

Compulsory for all candidates:

- Thesis: a theme that focuses on the African security milieu 14576 871 (90)

***Capita selecta* of study themes (for 90 credits):**

- Strategy in the Contemporary World 14577 872(30)
- Contemporary Irregular War 14578 872(30)
- Contemporary Land, Sea, Aerospace, or Cyber Power 14579 872(30)
- Contemporary Operational Theory 14580 872 (30)

3.1.5. MMil in Organisation and Resource Management

Admission Requirements

One of the following degrees:

- a BMilHons in Organisation and Resource Management, BMilHons in Military Management or BMilHons in Public and Development with a final mark of at least 60% and a final mark of 60% in Research Methodology; or
- any other related honours qualification as approved by the Programme Coordinator, for which you obtained an average final mark of at least 60% and a final mark of 60% in Research Methodology.

Duration of Programme

This MMil programme stretched over two years.

Programme Structure

The programme allows for a thesis option.

Programme Contents

You must submit a thesis (with a credit value of 180) that is the result of independent research in Organisation and Resource Management, which you choose after consultation with the Programme Coordinator and the chair of the School for Defence Organisation and Resource Management.

3.1.6. MMil in Security and Africa Studies

The programme allows for one of two modes of study, both under the guidance of a supervisor.

- Option A:
- a thesis with prescribed reading in preparation of a research proposal; and
- an oral examination and submission of an article for publication in an accredited journal; or
- a paper at a subject conference or a graduate seminar.
- Option B:
- a structured self-study programme culminating in a thesis.

3.1.6.1. MMil in Security and Africa Studies (Option A)

Admission Requirements

Subject to consultation with the lecturers at the School for Security and Africa Studies, one of the following degrees is required:

- a BMilHons degree in Security and Africa Studies with a minimum final mark of 60% in each subject; or
- any other honours degree with Military History, Strategic Studies, Political Science or another appropriate subject as major, with a final mark of 60% in each subject.

Duration of Programme

You must complete the programme after one year of full-time or two years of part-time study.

Programme Structure

Depending on your academic background, you select a research theme in consultation with your supervisor, who consults with the subject group as well.

This research theme leads to a research proposal, which must have a definite focus on Security and Africa Studies and which in turn leads to the writing of a thesis.

Programme Content

A thesis (180 credits) in which you demonstrate the ability to undertake independent, scientifically responsible research.

The thesis must comply with the guidelines of the University.

An oral examination.

Your thesis must be preceded by a literature study leading to a research proposal, which you must present at a Faculty of Military Science graduate research colloquium.

Publish, or submit for publication, an article on the study theme in a DOE-accredited journal or present a paper at a subject conference or graduate seminar.

3.1.6.2. MMil in Security and Africa Studies (Option B)

Programme Code

56278 878 (180)

Admission Requirements

Subject to consultation with the lecturers at the School for Security and Africa Studies, one of the following degrees is required:

- a BMilHons degree in Security and Africa Studies with a final mark of at least 60% in each subject; or
- any other honours degree with Military History, Strategic Studies, Political Science or another appropriate subject as major, with a final mark of 60% in each subject.

Duration of Programme

You must complete the programme after one year of full-time or two years of part-time study.

Programme Structure

The programme consists of three compulsory coursework modules, as determined by the supervisor, as well as a thesis based on an approved research proposal. You select your research theme in consultation with your supervisor. The research theme for your thesis should be based on the compulsory coursework modules. The research proposal must have a definite focus on Security and Africa Studies. Your thesis should demonstrate your ability to undertake independent, scientifically responsible research

Programme Content

Compulsory coursework modules (90 credits)

Strategy in the Contemporary World	14582 872(30)	Dept of Strategic Studies
A Theme from South African Military History	14571 872(30)	Dept of Military History
International Conflict Resolution and Peacekeeping	14585 872(30)	Dept of Political Science (Mil)

Compulsory Thesis (90 credits)

Thesis (Security and Africa Studies)	14581 871(90)	Dept of Political Science (Mil)

Assessment and Examination

The three compulsory modules and the thesis will be assessed accordingly to the regulations of Stellenbosch University for the relevant NQF level.

3.1.7. MMil in Technology

Admission Requirements

- An applicable BMilHons degree in Technology with a final mark of at least 60% in the major subjects; or
- any other relevant honours degree that has been approved for this purpose by the Programme Coordinator, with a final mark of at least 60% in your majors.

Duration of Programme

The programme is presented over at least one year for full-time and two years for part-time students.

Programme Structure

You must submit a thesis with a credit value of 180. You are also expected to write a relevant research article for publication or for presentation at a conference.

3.2. MPhil in Defence Studies

Offering of this degree programme is subject to the availability of staff and the number of students.

Admission Requirements

- An appropriate honours degree, a PG diploma at NQF level 8 or a professional degree; OR
- a B degree with applicable experience assessed by means of SU's recognition of prior learning (RPL) process as outlined in the *SU Policy for Recognition of Prior Learning (RPL) and Credit Accumulation and Transfer (CAT) (2017)*.

Duration of Programme

The programme stretches over at least one year for full-time students, and two years for part-time students.

Programme Content

Compulsory modules

Defence and International Politics	14274 844(30)
Defence Policy and Strategy	14275 844(30)
The History of Defence in South Africa	14276 844(30)
Research Assignment	14277 844(60)

Elective modules

Choose two of the modules (= 30 credits) from the table below.

Defence Management	14278 844(15)
Military Sociology	14279 844(15)
Defence Economics	11700 844(15)
Defence and Geography	14282 844(15)
Military Organisational Behaviour	14280 844(15)
International Law: From Human Rights to Humanitarian Law	14283 844(15)

4. Doctoral degrees

4.1. PhD in Military Science

For admission to the Doctorate in Military Science (PhD), you must:

- hold a master's degree in Military Science (final mark 60%) or in any other similar field of study (final mark 60%) deemed appropriate by the PhD committee and Senate; and
- successfully prepare a PhD research proposal for selection by the PhD committee, with a period of twelve months to prepare the proposal.

Subjects, modules and module content

1. Definitions and explanations of important terms

It is important that you take note of the definitions of a few terms in order to understand and use this chapter to your best advantage. The example below shows how these terms will appear in this chapter.

Example:

22969 Military Geography

114 (12) Concepts and techniques in geography (4L, 3P)

1.1 Explanation of the above-mentioned terms:

- *Five-digit subject number*

  Each subject is identified by this five-digit subject number.

  22969 Military Geography

- *Subject name*

  The name of the specific subject after the five-digit subject number, before the various modules of the subject.

  22969 **Military Geography**

- *Module code*

  114 (12) Concepts and techniques in geography (4L, 3P)

  The module code consists of a three-digit number that is unique to the specific module. The above-mentioned module code "114" has the following meaning:

  - The first digit refers to the year of study in which the module is presented, for example:

  Year 1: **1**14

  Year 2: **2**14

  Year 3: **3**14

  - The second digit "1" refers to the semester that the module will be presented in and also serves as a number to distinguish between various modules of the same subject offered in a specific year of study. The University uses different numbers to indicate the particular semester of a module, either the first or the second semester or modules that are presented in both semesters (which are year modules). The numbers that indicate semesters are as follows:
    - **1**, **2** of **3** - modules are presented in the first semester.

      *Semester 1: 1**1**4, 4**2**2, 2**3**4*
    - **4**, **5** of **6** - modules are presented in the second semester.

      *Semester 2: 1**4**3, 2**5**2, 2**6**2*
    - **7**, **8** of **9** - modules are presented in both semesters, which are year modules.

      *Year module (both semesters): 4**7**8, 2**8**8, 3**9**1*
  - The third digit of the module code serves as a distinguishing digit between various modules of the same subject in a particular year of study.

- *Credit value*

  114 **(12)** Concepts and techniques in geography (4L, 3P)

- *Module subject*

  114 (12) **Concepts and techniques in geography** (4L, 3P)

- *Teaching load*

114 (12) Concepts and techniques in geography (4L, 3P)

The teaching load of a module is indicated following the module subject. It gives you both the teaching load and the type of teaching per week that you can expect. In the example above the teaching load of Military Geography 114 consists of four lectures plus three practicals per week for the duration of the module, i.e. one semester.

The following abbreviations are used:

L – lectures lasting 40 minutes each (e.g. 1L, 4L)

P – practical periods lasting 40 minutes each (e.g. 1P, 2P, 3P)

S – seminar lasting 40 minutes (e.g. 1S)

T – tutorials lasting 40 minutes each (e.g. 1T, 2T)

2. Prerequisite pass modules, prerequisite modules and corequisite modules

After the description of the module's content, the prerequisite pass, prerequisite and corequisite modules for that module are given, where applicable. The following terms are used:

- Prerequisite pass module
  - A prerequisite pass module is a module that you must pass before you can take the module(s) for which it is a prerequisite pass module.
- Prerequisite module
  - A prerequisite module is a module in which you must obtain a final mark of at least 40, before you can take the module for which it is a prerequisite module. If you registered for a prerequisite module while it was examined by the "examination" assessment system, your class mark for it must be 40 for you to meet the prerequisite.
  - If you have once complied with a prerequisite rule, your compliance will remain valid for the period given in the applicable assessment rules, even if you repeat the prerequisite module and do not meet the minimum level when repeating the module.
  - Please note: You must pass all the modules you used as prerequisites in the programme before the relevant degree, certificate or diploma can be awarded to you.
- Corequisite module
  - A corequisite module is a module that you must register for in an earlier semester than the module for which it is a corequisite, or in the same semester.
  - Please note: You must pass all the modules you used as corequisites in the programme before the relevant degree, certificate or diploma can be awarded to you.

Condition for the granting of a qualification

The Faculty will award a qualification only if you have passed all the relevant prerequisite and corequisite modules of the specific programme.

15822 Aeronautical Science (Mil)

Please Note

- Qualified SAAF pilots/navigators receive credit for Aeronautical Science (Mil) 114, 124, 144, 154, 212, and 222.

114(12) Basic Aviation Theory (4L, 1T)

Basic aerodynamics: history of flight; basic mathematical concepts; mechanics revision; kinematics revision; symbols and definitions; flow types; pressure distribution; boundary layer theory; lift; drag; wing plan forms; lift augmentation; primary and secondary flight controls.

Meteorology: composition of atmosphere; atmospheric characteristics (pressure, temperature, density, humidity, adiabatic process, lapse rate and stability); wind; air masses; clouds; fog and mist; visibility; precipitation; fronts; thunderstorms; turbulence; ice accretion; pressure systems; climatology; aircraft with observations (airport, radar and weather satellites); synoptic charts; codes/documentation; meteorological organisations. Flight Simulator: knowledge, skills and attitude integration; cockpit integration; VFR procedures; IFR procedures.

Home department: Aeronautical Science (Mil)

124(12) Basic Aviation Theory (5L, 4T)

Airmanship: ICAO; Convention of Civil Aviation; South African Civil Aviation Regulations; Part 139; Part 172; CATS; basic flight rules; air crew utilisation; grading; efficiency maintenance; air traffic control.

Advanced aerodynamics I: stability; spinning theory; propeller theory; aircraft performance theory, turning theory; manoeuvre envelope.

Human performance: basic human physiology for air crew; effects of pressure changes on the human body; effects of aerobatic manoeuvres on the human body; secondary effects of medicine usage on air crew; basic aviation psychology for air crew; effects of cockpit dynamics on air crew.

Flight Simulator: knowledge, skills and attitude integration; cockpit integration; VFR procedures; IFR procedures.

Home department: Aeronautical Science (Mil)

144(12) Basic Aviation Theory (4L, 1T)

Instrument and magnetism: gyroscopes; atmospheric pressure – instruments; basic magnetic theory; electronic instruments.

Avionics I and II: basic radio theory; navigation systems; basic radar theory; primary and secondary radar systems; flight directors.

Flight Simulator: knowledge, skills and attitude integration; cockpit integration; VFR procedures; IFR procedures.

Home department: Aeronautical Science (Mil)

154(12) Basic Aviation Theory (5L, 4T)

Navigation: basic concepts; distance measurement; scale; map projection principles; Mercator and Lamberts projections; measurement of time; relative velocity.

Engines: internal combustion engines; ignition; lubrication; cooling; fuels; engine performance; mixtures; engine handling; turbine engines; mechanics; ignition; fuel transfer.

Aircraft technical: airframe and aircraft systems; air driven systems; air conditioning; fuel systems; electrical systems; emergency equipment.

Flight Simulator: knowledge, skills and attitude integration; cockpit integration; VFR procedures; IFR procedures.

Home department: Aeronautical Science (Mil)

212(10) Basic Aviation Theory (Telematic Services) (5L, 1P)

Advanced aerodynamics II: stalling; spinning; aircraft performance; manoeuvres.

Flight operations and procedures: aerodromes and landing areas; ground visual aids and aerodrome lighting; air information publication (AIP); air information circular (AIC); Notams and SAAF flight information manual (FIM); aerodrome facilities and associated chart legends; holding patterns I and II; approach procedures I – IV; radio communication failure; SIDs and STARs; air traffic control; planning for all weather operations; flight plans.

Navigation plotting: navigation on climb and descent; en route navigation; search patterns; PNR and PET.

Flight planning and performance: definitions and terms; airspeed terminology and symbols; meteorology terminology; aerodrome symbols and terminology; take-off flight path; aircraft manuals; mass and balance.

Avionics III: Doppler navigation; satellite navigation; microwave landing system.

Prerequisite modules: Aeronautical Science (Mil) 114, 124, 144, 154

Home department: Aeronautical Science (Mil)

222(10) Basic Aviation Theory (Telematic Services) (5L, 1P)

Helicopter aerodynamics: introduction to helicopter aerodynamics; definitions; helicopter control; helicopter flight part I and II: hovering; forward flight; power requirements; autorotation; hazardous conditions and recovery actions; helicopter stability.

High speed aerodynamics: compressibility – part I and II; lift in high speed flight – part I and II; drag in high speed flight; high speed stability and control – part I and II; high-speed wing designs – part I, II and III.

Multi-engine aerodynamics: asymmetric forces and couples; control in asymmetric powered flight; minimum control and safety speeds; single-engine performance; asymmetric procedures and manoeuvres.

Electronic warfare: electronic warfare (general); air defence deployment; EW response to the radar threat; introduction to infra-red; SIGINT and ESM – part I and II; ECM and ECCM – part I and II.

Aviation Safety: basic concepts; domino effect; man/machine interaction; human factors in aviation safety.

Prerequisite modules: Aeronautical Science (Mil) 114, 124, 144, 154

Home department: Aeronautical Science (Mil)

244(20) Advanced Avionic Systems I (Telematic Services) (5L, 1T)

Advanced avionics: ARINC 429 and 1553 databus architecture; IRS/GPS navigation system; EFIS – electronic flight instruments; head up display (HUD); FLIR; ICNI –integrated comms ident; FADEC – full authority digital engine control; HUMS – health usage monitoring system.

Home department: Aeronautical Science (Mil)

314(24) Advanced Avionic Systems II (Telematic Services) (6L, 1T)

Advanced avionics: night vision goggles (NVG); speech recognition and synthesis; flight management systems; synthetic vision; enhanced situational awareness; TCAS; modelling and simulation; certification.

Flight Controls: Fly-by-wire (FBW); design studies.

Prerequisite modules:

- Aeronautical Science (Mil) 244
- Physics (Mil) 124, 154 or 114, 144

Home department: Aeronautical Science (Mil)

344(24) Human Factors in Aviation and further advanced avionics systems (Telematic Services) (6L, 1T)

Emotional stress; decision-making; CRM. Requirements, design analysis, validation and certification: setting requirements; digital avionics modelling and simulation; formal methods; electronic hardware reliability; certification of civil avionics; processes for engineering a system; electromagnetic environment (EME). Software: Ada; RTCA DO-178B/EUROCAE ED-12B.

Implementation: fault-tolerant avionics; Boeing B-777; new avionics systems – Airbus A330/A340; McDonnell Douglas MB-11 avionics system; Lockheed F-22 Raptor; advanced distributed architectures. Other Applications: HUMS; FADEC. CRM assignment.

Prerequisite module: Aeronautical Science (Mil) 314

Home department: Aeronautical Science (Mil)

14973 Advanced Intelligence Analysis

344(24) Advanced Intelligence Analysis (6L)

Techniques for strategic intelligence analysis with a wide applicability to tactical military analysis, law enforcement intelligence analysis, domestic security, business consulting, the medical profession, financial planning, cyber analysis and complex decision-making in any domain; Employing structured analytic techniques (SATs); to actual intelligence problems.

Prerequisite module: Intelligence Analysis) 244

Home department: Political Science (Mil)

63606 Applied Commercial Law

244(16) Applied Commercial Law (5L)

Specific contracts: contracts of sale, contracts of lease, credit agreements, agency, vicarious liability.

Entrepreneurial Law: companies, close corporations, partnerships, business trusts.

Corequisite module: Contract Law (Mil) 214

Home department: Mercantile and Public Law (Mil)

314(24) Applied Labour Law (5L)

Individual Labour Law: introduction, discipline in the workplace, introduction to unfair dismissals, the concepts employee, dismissal and unfair dismissal, automatic unfair dismissals, dismissal for misconduct, dismissal for incapacity, unfair labour practices, employment equity, dispute resolution.

Collective Labour Law: introduction, Labour Relations Act, freedom of association, organisational rights, collective bargaining, statutory bargaining forums, workplace forums, dispute resolution.

Home department: Mercantile and Public Law (Mil)

13779 Applied Mathematics (Mil)

112(6) Basic Probability Theory (2L, 2T)

Sample spaces and events; random selection; the probability of an event; permutations and combinations; axioms of probability; probability rules; conditional probability; stochastic independence; Bayes' Theorem.

Corequisite modules: Mathematics (Mil) 112, 122

Home department: Mathematics (Mil)

122(6) Modelling in Mechanics I (2L, 2T)

Use of vector, differential and integral calculus in the modelling of dynamics of simple physical systems as found in the study of basic engineering mathematics of mechanics. Fundamental concepts; coordinate systems in E2 and E3; scalars and vectors; the kinematics of linear and angular motion.

Corequisite modules: Mathematics (Mil) 112, 122

Home department: Mathematics (Mil)

142(6) Probability Theory with Univariate Distributions (2L, 2T)

Discrete and continuous stochastic variables; expected value and variance of stochastic variables; important discrete distributions: binomial, geometric, negative binomial, hyper-geometric and Poisson; important continuous distributions: uniform, normal, exponential, gamma and beta.

Corequisite modules: Mathematics (Mil) 142, 152

Prerequisite modules: Applied Mathematics (Mil) 112

Home department: Mathematics (Mil)

152(6) Modelling in Mechanics II (2L, 2T)

Use of vector, differential and integral calculus in the modelling of dynamics of simple physical systems, including the analysis of force fields, motion and modelling assumptions. Equilibrium of force systems; Newton's second law; impulse and momentum; work, energy and power.

Corequisite modules: Mathematics (Mil) 142, 152

Prerequisite module: Applied Mathematics (Mil) 122

Home department: Mathematics (Mil)

36420 Auditing (Mil)

214(16) Auditing (5L, 1P)

The auditing profession: introduction to auditing and the auditing profession; internal controls and the impact of information technology.

Application of control objectives, risks and internal controls in the sales and receipts cycle; the acquisition and payment cycle; payroll and personnel cycle; inventory and warehousing cycle and financing cycle.

Home department: Accounting (Mil) and Auditing (Mil)

244(16) Auditing (5L, 1P)

The auditing process: audit responsibilities and objectives; audit evidence; audit planning; analytical procedures and documentation; materiality and risk.

Application of the auditing process to the sales and receipts cycle; acquisition and payment cycle; payroll and personnel cycle; inventory and warehousing cycle; and financing cycle. Completing the audit including audit reports and review engagements.

Home department: Accounting (Mil) and Auditing (Mil)

45756 Computer Information Systems (Mil)

114(12) Information Systems Theory and Practice (5L, 3P)

Overview of computer concepts: software and utilities; system unit components; input; output; storage; communications and networks; internet; operating systems and systems software; knowledge of work productivity concepts; advanced software functionality to support personal and group productivity using email, word processing, spreadsheets, presentation software and database tools; tool use for personalisation and optimisation; professional document design.

Home department: Computer Information Systems (Mil)

144(12) Software Engineering and Object-oriented Programming (3L, 3P)

Software engineering by means of a program-development process: computational thinking, programming concepts, software design.

Object-oriented programming: Implementational (coding) in Python 3, ChatGPT prompt engineering.

Prerequisite pass module: Computer Information Systems (Mil) 114

Home department: Computer Information Systems (Mil)

154(12) Management Information Systems (5L, 3P)

Concept of systems and organisations; strategic uses of information technology; introduction to BPR (Business Process Re-engineering) and Critical Success Factor analysis; various categories of management information systems; ethics of information systems; management of information systems.

Home department: Computer Information Systems (Mil)

214(20) Databases and Information Systems Management (6L, 3P) (from 2020)

Databases: introduction to databases; database theory and design; database users; database system concepts and architecture; data modelling using the entity-relationship model, relational constraints and relational algebra; SQL; practical database management; functional dependencies and normalisation for relational databases; practical database design and tuning; emerging database technologies and applications.

Information systems management: role of information systems in the digital economy; ethics in information technology management; achieving competitive advantage through strategic use of information systems; implications of the Web revolution; introduction to information and knowledge management; impacts of information systems on organisations, individuals and society.

Prerequisite pass module: Computer Information Systems (Mil) 144

Home department: Computer Information Systems (Mil)

244(20) Information Technology Hardware and Systems Software (5L, 3P)

Hardware: CPU architecture, memory, registers, addressing, modes, busses, instruction sets, multi-processors versus single processors; peripheral devices: hard disks and other storage devices, video display monitors, device controllers, input/output; circuits and gates. Application on the micro-architecture level.

Operating system modules: processes; process management; memory and file system management; examples and contrasts of hardware architectures and operating systems.

Prerequisite pass module: Computer Information Systems (Mil) 144

Home department: Computer Information Systems (Mil)

314(24) Cyber Warfare and Data Communication Networks (6L, 3P)

Introduction to cyber warfare and security: elementary principles of computer and network security; introduction to encryption, public key certificates and protocols.

Data communication and networks: telecommunication configurations; network and web applications; distributed systems; wired and wireless architectures, topologies and protocols; installation, configuration and operation of bridges, routers, switches and gateways; network performance tuning; privacy, security, firewalls, reliability; installation and configuration of networks; monitoring and management of networks; communication standards.

Prerequisite module: Computer Information Systems (Mil) 244

Home department: Computer Information Systems (Mil)

344(24) Information Systems Design (5L, 3P) (from 2020)

Systems analysis and design: requirements determination, logical design, physical design and implementation; interpersonal skills; interviewing; presentation skills; group dynamics; risk and feasibility analysis; group-based approaches: project management, joint application development (JAD) and structured walkthroughs; structures versus object-orientated methodologies; rapid application development (RAD), prototyping.

ICT project management: managing the systems lifecycle; project tracking; metrics and systems performance evaluation; managing expectations of managers, clients, team members and others; determining skills requirements and staffing; cost-effectiveness analysis; reporting and presentation techniques; management of behavioural and technical aspects of the project; change management; software tools for change management and monitoring; team collaboration techniques and tools.

Prerequisite pass module: Computer Information Systems (Mil) 144 or Computer Science (Mil) 114

Home department: Computer Information Systems (Mil)

13778 Computer Science (Mil)

114(12) Introduction to Computer Science and Programming I (5L, 3T)

Formulate simple solutions to problems from a broad range of application areas, using a useful set of algorithmic and problem reduction techniques. Systematically organise, write, and debug medium-sized programs in Python, covering topics such as core elements of a program; simple algorithms; functions; recursion; objects; debugging; assertions and exceptions.

Home department: Computer Information Systems (Mil)

144(12) Introduction to Computer Science and Programming II (5L, 3T)

Formulate solutions to complex problems from domains of data visualisation, probabilistic and statistical thinking, simulation models as well as using computation to understand data. Formulate solutions to advanced problems from domains such as optimisation problems, dynamic programming and machine learning. Implement simple algorithms and data structures in an efficient manner that reduces computational complexity. Write and debug medium-sized programs in Python using object-oriented programming techniques, covering topics such as efficiency and orders of growth; memory and search; classes, OOP and inheritance; and search trees.

Prerequisite pass module: Computer Science (Mil) 114

Home department: Computer Information Systems (Mil)

13972 Contemporary and Comparative Intelligence Studies

314(24) Contemporary and Comparative Intelligence Studies (6L)

Theoretical and practical approaches to intelligence studies as a developing field of study, which will include contemporary advances as well as comparative analysis, to relate South Africa's position to international organisations and institutions within the global and national security environments.

Home department: Strategic Studies

56987 Contract Law (Mil)

214(16) Contract Law (5L)

Introduction and basis of contracts: validity requirements, contents and operation of contracts; principles of representation; breach of contract and remedies; termination of obligations.

Home department: Mercantile and Public Law (Mil)

13970 Counter-Intelligence Threats

314(16) Counter-Intelligence Threats (6L)

Threat as the central construct to the conduct of CI; understanding the integrated nature of the CI threat – espionage, sabotage, subversion, acts endangering security; foreign intelligence services; CI within the context of international terrorism/extremism and non-state actors; cyber security as a CI enabler and threat; CI threat implications for national security.

Home department: Strategic Studies

46701 Criminal and Military Law

114(12) Criminal and Military Law (5L)

General introduction to the study of law: the nature and essence of the law; classification of the South African law; sources of the law; jurisprudence in South Africa.

General principles of criminal law: punishment theories and criminal liability; conduct and prohibition; causation, unlawfulness, culpability.

Home department: Mercantile and Public Law (Mil)

144(12) Criminal and Military Law (5L)

Law of evidence: introduction to law of evidence; admissibility of evidence; privilege; means of proof; sufficiency of proof and burden of proof.

Military law: introduction and application, military offences; procedure of the disciplinary hearing, procedure of the court of the military judge, boards of inquiry; redress of wrongs, law of armed conflict.

Home department: Mercantile and Public Law (Mil)

12092 Economics (Mil)

114(12) Micro-economics (4L, 1T)

Introduction and background to economic issues and theory; overview of economic systems; theory of demand, supply and interaction in markets; government intervention in markets – price control and taxes; theory of demand; theory of production and supply; theory of alternative market structures; introduction to markets for factors of production; inequality and poverty; the case for and against government intervention.

Home department: Economics (Mil)

144(12) Introduction to Macro-economics and Monetary Economics (4L, 1T)

Macro-economics issues: economic growth, unemployment and inflation; the open economy; macro-economic thought; the simple Keynesian analysis of national income, employment and inflation; fiscal policy; money and interest rates; monetary policy; Keynesian and monetarist controversies: the control of aggregate demand, aggregate supply, unemployment and inflation; supply-side economics; international trade, the balance of payments, exchange rates and international economic relationships; economic development.

Home department: Economics (Mil)

214(16) Advanced Principles of Economics (5L, 1T)

Micro-economics: market failure; welfare economics; market for factors of production.

Macro-economics: the four-sector model; the IS/LM model; the AD/AS model.

Prerequisite pass modules: Economics (Mil) 114, 144

Home department: Economics (Mil)

244(16) International Economics (5L, 1T)

International trade: theory of international trade, tariffs and subsidies.

International finance: foreign exchange markets; the balance of payments; alternative exchange rate regimes; international finance and the international monetary system; international finance and the debts crisis.

Public finance: introduction to fiscal theory; the role of government allocation and the redistribution function; tax structure theory; public finance in the micro-economic context; the defence budget and economic warfare.

Home department: Economics (Mil)

314(24) Applied Economics (5L)

Labour economics: the government in the labour market; wage theory; wages and inflation; interaction between supply and labour markets; theory of unemployment; theory of unions and strikes; theory of labour productivity and human capital; South African labour market.

Economic systems and thought: pre-classical thought; neo-classical thought; capitalism; socialism; communism and social democracy; mixed economy.

Defence economics: the functioning of the defence industry; economic warfare; national budget and defence aspects; labour economics from a defence perspective.

Home department: Economics (Mil)

344(24) Quantitative Economics (5L)

Introduction to econometrics: overview of terminology, methodology and interpretation; application of hypothesis testing; regression analysis, interpretation and model selection; understanding of dummy variables, multicollinearity, heteroscedasticity and autocorrelation; use of RStudio software to create basic regression models.

Home department: Economics (Mil)

56286 English Studies (Mil)

114(12) Academic Writing and Communication in English (3L, 2S)

This semester module is presented to students in all programmes offered by the Faculty of Military Science. The purpose of this module is to provide you with the argumentation, critical thinking and general linguistic tools. Students will investigate the daily act of good and fallacious reasoning through a diversity of contemporary texts.

Too often, bad use of grammar reflects badly on the user of the language and leads to unfair labelling of the speaker/writer as being uneducated. You will be guided in communicating successfully in any discipline by

selecting and using language "carefully, purposefully, artfully and based on shared, logical understanding".

Home department: Industrial Psychology (Mil)

144(12) English Language, Literature and Culture in Context (3L, 2S)

In this semester module there is a greater emphasis on critical reading, appreciation and analysis of literary text, with special reference of English in a South African context. A variety of text, fiction and non-fiction (contemporary news articles, short stories, poetry, films and other genres) will be studied to explore concepts of culture and more general issues of cultural and national identity. Cultural bias in and through literature will, inter alia, be addressed. The fact that "people in various positions of power often use (abuse) language to remain in power" will be critically analysed, challenged and evaluated.

In order to build on the principles of good language usage taught during the first semester, students are introduced to the diverse ways South Africans speak and write, and their reasons for doing so. The focus on language and culture alerts them about their own, and others' deviations from South African Standard English. It also guides them towards writing in a style and register that suits the tertiary academic environment beyond the familiar military environment.

Home department: Industrial Psychology (Mil)

XXXXX Intelligence Analysis

244(16) Intelligence Analysis (5L)

The meaning of the concept analysis, and terminology associated with the analysis process; Differences and commonalities in intelligence analysis; Qualities of intelligence analysts; Challenges analysts face; Intelligence analysts' roles and functions; the role and importance of analysis in the conduct of intelligence; The different levels of analysis; the process of analysis; .The intelligence cycle and analysis within the intelligence cycle; The role of technology in analysis; Learning from intelligence failures; Historical and contemporary examples of the impact/effect of incorrect analysis/intelligence; the schools of thinking on failure; theories of failure; Preventing Intelligence failure; Improving the quality of analysis; Critical thinking, perception, and memory; Cognitive bias; Problem-solving; Reflective thinking; The concepts associated with denial and deception; Historical examples of denial and deception; WWII, Cold War and current application of denial and deception; Deception in cyberspace; The continues war of withs; Problems confronting the discipline of intelligence analysis; The nature of mooted solutions; Activities and processes as enablers to optimise advanced analysis.

Home department: Political Science (Mil)

14972 Introduction to Covert Action

144(12) Introduction to Covert Action (6L)

Covert Action (CA) Theory; Principles and Methods; Advantages and Disadvantages; Regulatory Framework; Historical Contexts; Covert Alliance Formation; Global Covert Operations; Regulatory Framework Requirements for CA in South Africa, CA in South African History Pre-1994; Domestic Perspectives; The International Dimension: Covert Action in South African History from Apartheid to Post-Apartheid.

Home department: Strategic Studies

13974 Introduction to Intelligence Analysis

144(12) Introduction to Intelligence Analysis (5L, 1T)

The influence of mind-sets, paradigms and perceptions in analysis; Steps to improve the quality of analysis. The nature of analysis; terminology and concepts; analysis and the intelligence analyst. Levels of analysis; analytical pitfalls; analytical frameworks and inference development; analysis as a process; the influence of technology in analysis; intelligence analysis failures; improving the quality of analysis; factors influencing intelligence.

Home department: Political Science (Mil)

56324 Financial Accounting (Mil)

114(12) Introduction to Financial Accounting (5L, 1P)

The basic principles and spheres of accounting: the nature and function of accounting, the nature of accounting theory, financial position, financial result, the double-entry system and the accounting process.

Collecting and processing the accounting data of organisations.

Accountability for current and non-current assets: cash and cash equivalents, trade and other debtors,

inventory, property, plant and equipment and other non-current assets.

Accountability for current and non-current liabilities: current liabilities and non-current liabilities.

Accounting reporting: financial statements of a sole trader.

Home department: Accounting (Mil) and Auditing (Mil)

144(12) Advanced Financial Accounting (5L, 1P)

Collecting and processing the accounting data unique to a non-profit organisation, a close corporation, a partnership and a company. Preparing the financial statements of a non-profit organisation, a close corporation, a partnership and a company.

Analysis and interpretation of financial statements.

Ethics in financial accounting.

Prerequisite module: Financial Accounting (Mil) 114

Home department: Accounting (Mil) and Auditing (Mil)

13979 General Intelligence History

224(16) General Intelligence History (5L, 1T)

Introduction to the study of intelligence history; introduction to intelligence historiography and methodology; basic concepts and orientation to diverse phenomena in intelligence history; introduction to early intelligence systems and its evolution; intelligence in the Age of the Industrial Revolution and subsequent industrial revolutions; intelligence agencies, including Russia, USA, Israel, India, North Korea, China, UK; intelligence in the Two World Wars; the Cold War and intelligence. Despotism; terror and intelligence in contemporary history; cyber space and intelligence since 1900.

Home department: Military History

43826 Industrial Psychology (Mil)

114(12) Introduction to Human and Organisational Development (5L)

Introduction: history of psychology; definitions, schools of thought and areas within industrial psychology. Physical dimension: central nervous system and brain, senses, perception, attention, memory, information processing, heredity, development. Psychological dimension: intellectual and volitional processes, emotions. Man as a social being in interaction with his environment. Theoretical perspectives on personality; stress and unhealthy habits; human reactions to stress, mental health problems; identification, classification and treatment of psychopathological behaviour.

Home department: Industrial Psychology (Mil)

124(12) Ergonomics (5L)

Ergonomics: introduction to ergonomics. Approaches and models in ergonomics. Basic principles and business perspectives in ergonomics; the man-machine interface; information and operation incorporating information processing, controls, displays and control panels. Applied ergonomics, human factors in systems, posture, movement, applied anthropometry, physical space and arrangements, and workspace guidelines for design.

The workplace: vision and lighting, climate factors and temperature, chemical substances and toxicology, noise and vibration, cumulative trauma and the built environment. Legislation, human error and safety, inspection and maintenance, quality and productivity; ergonomic approach to workplace programmes.

Practical component: students complete a practical project and make presentations (part of assessment).

Home department: Industrial Psychology (Mil)

144(12) Career Psychology (5L)

Introduction: outlining the area of study and key concepts; fundamentals of career psychology.

Sustaining a career and the course of a career: the employee in interaction with the work environment, career dynamics within a career developmental framework; entry into the world of work; the psychological contract; career anchors; early career stage, establishment, middle career, pre-retirement and preparation for retirement.

Theory of organisational choice, organisational entry; organisational change and implications for careers; dual career families; job loss.

Industrial mental health: promoting industrial mental health on an individual as well as organisational level.

Home department: Industrial Psychology (Mil)

214(16) Military Psychology (5L, 1P)

An introduction to military psychology. Personality theory and war: the role of personality in the declaration of war, explained in terms of the personality theory of Jung.

Adjustment psychology: a definition of maladjustment; the transition from adolescence to adulthood during military training; the conflict between a military identity and a youth identity.

Operational psychology: the psychological preparation of soldiers for operations; the psychological effects of combat on the soldier; combat motivation; factors involved in combat stress; the identification of post-traumatic stress disorder; the psychological debriefing of trauma.

Peacekeeping psychology: the psychological model to support soldiers and their dependants during deployment on peacekeeping operations; the various stressors experienced by soldiers during the different phases of peacekeeping operations; the psychological effects of being held as a prisoner of war during peacekeeping operations.

Psychological Warfare: the content focuses on the model for and ethical use of Psychological War Operation.

Home department: Industrial Psychology (Mil)

244(16) Human Resources Management (4L, 1P)

Human resources management in perspective: introduction, role and environment of human resources management, an overview of human resources management in South Africa, research methods, problem statement, the design of the research study, major research methods, measurement of variables, analysis of data. Human resource management pre-selection practices: planning for human resources, analysing jobs, determine criteria and standards for decision-making, conceptual versus actual criteria, criterion deficiency, relevance and contamination, objective criteria versus subjective criteria, the relationship among job performance criteria.

Human resource management selection practices: assessing the quality of predictors, reliability and validity, psychological tests and inventories, ethical standards in testing, sources of information about testing, test content, interviews, assessment centre evaluations, work samples and situational exercises, biographical information, letters of recommendation, newer and controversial methods. Models of personnel decisions, recruitment, selection, placement and classification.

Human resources management post-selection practices: the strategic value of training and development, assessing training needs, methods of training and development, management development issues, equal employment opportunity and training, evaluation of training programmes quality of work life, appraising job performance, sources of job performance appraisal, performance appraisal methods, rater training, self- and peer appraisals, feedback of appraisal information to employees, job evaluation, compensation, factors influencing compensation, employee benefits and services, motivation and compensation.

Human resources (HR) planning: the need for HR planning, strategic business planning, the HR planning process, evaluation of the HR planning process.

Factors that influence human resource management practices: safety and health, technology and international trends. People challenges in the new economy, managing a virtual workplace, implications of globalised markets, mergers and downsizing. Changes in the world population and demography.

Home department: Industrial Psychology (Mil)

254(16) The Management of Cultural Diversity (4L, 1P)

Culture and psychology: introduction to cross-cultural psychology; culture and the self; culture and basic psychological processes; cultural perspectives of the developmental theories of Piaget, Kohlberg and Erikson; culture and behaviour in organisations; approaches to the classification and analysis of culture; cross-cultural issues; stereotypes, biases and prejudices; cross-cultural conflict; cross-cultural abnormal psychology; cross-cultural counselling; cross-cultural training; culture and communication; cross-cultural management and leadership.

Managing diversity: introduction to diversity and concepts; diversity in South African society; diversity issues in the military; diversity initiatives in organisations; a model for the management of diversity in the South African National Defence Force; cross-cultural psychology in operations; co-operation with multinational forces; culture and deployment in foreign countries.

Home department: Industrial Psychology (Mil)

314(24) Research Methodology and Psychometrics (5L, 1P)

Research methodology: introduction to research methods; introduction; using scientific methods in psychology. Introduction to psychometrics and its history.

The research process: definitions; formulating the research problem, setting up hypotheses, concepts, constructs, variables, levels of measurement; research design and strategy; significance, purpose and principles; design criteria.

Types of research: ex post facto, laboratory and field experiments, quasi-experimental designs, surveys. Control, reliability and validity testing.

Basic statistics: introduction to statistics in psychology. Basic statistical concepts; grouping and graphic representation of data; central tendency, variability, normal distribution, standard scores; correlation statistics, product correlation, rank correlation and regression; probability and the normal sampling distribution; testing of hypotheses, errors of decision; distribution: t-test, chi-square, F-test; using test statistics; non-parametric statistics.

Basic psychological testing: measurement theory, principles, validity and reliability; test construction and norms; scales of measurements, types of measurement procedures, and criteria. Measuring aptitude, interest and personality; setting up a measurement programme and the procedure for its application; interpreting, systematising and describing the sets of measurements; ethical aspects of psychological measurement. Report writing and decision-making based on measurements.

Home department: Industrial Psychology (Mil)

344(24) Organisational Psychology (5L, 4P)

Introduction and historical perspective, micro processes: differences in individual behaviour, nature and formation of groups, intergroup behaviour and group dynamics.

Basic motivational processes: job motivation, theories of motivation, behaviour modification, coping with conflict. Power politics and organisation politics.

Management: theories of leadership, management development, managerial decision-making and control, processes of communication.

Macro processes: organisational design, structuring and development; organisational change and resistance to it. Organisation research: action research; consultant/client relations; contingency approach and expectations theory.

The military organisation: the development of an "us/them" culture. Reactions to the military environment. Work-related attitudes of military personnel.

Home department: Industrial Psychology (Mil)

13983 Intelligence Mandate and Regulatory Framework

254(16) Intelligence Mandate and Regulatory Framework (5L, 1T)

The stipulations and definitions of the statutory intelligence legislation; the mandate of service and their differences; ramifications of non-compliance to legal prescripts and procedures; restrictions and limitations on co-operative intelligence practices and products; legal status of organisational directives, policies and procedures; relevant criminal and military law; oversight bodies; the right to listen and follow; the regulatory framework applicable to intelligence in South Africa; legal requirements in terms of audit trial; criminal and military law related to the intelligence environment and ethics for intelligence functionaries.

Home department: Mercantile and Public Law (Mil)

13981 Operational Psychology

324(24) Operational Psychology (6L)

Role of psychology in the national security sphere; operational psychology as emerging military psychology sub-discipline; polemology; operational psychology as an intelligence function; the significance of human behaviour for the intelligence function; motivational theories and their application in the intelligence environment; the subject areas of operational psychology; the psychology of truth verification; human behaviour and eligibility for access to classified information; psychology and counterterrorism; psychology in the cyber domain (insider threats and social engineering); behavioural profiling as an intelligence tool; psychology of intelligence analysis, influencing, intelligence and counter-intelligence operational support; assessments for strategic decision-making in national leaders; psychological operations; operational psychology and ethics.

Home department: Industrial Psychology (Mil)

XXXXX Introduction to Counterintelligence

114(12) Introduction to Counterintelligence (6L)

Counterintelligence (CI) theory and fundamentals; Defensive CI tenets; defence CI planning and analysis; defensive CI security domains; offensive CI theory and tenets; offensive CI cycle; offensive CI methods; CI and ethics.

Home department: Strategic Studies

13973 Introduction to Intelligence

114(12) Introduction to Intelligence (5L, 1T)

The Intelligence Cycle; introducing intelligence as a study field; the nature and scope of intelligence within the civilian and military environments; intelligence and democracy; anthropology and intelligence; intelligence successes and failures.

Home department: Political Science (Mil)

13968 Intelligence Collection

144(12) Intelligence Collection (5L, 1T)

Collection as an element of intelligence; collection disciplines, i.e. geospatial intelligence (GEOINT); signal intelligence (SIGINT); measurement and signature intelligence (MASINT); human intelligence (HUMINT); open source intelligence (OSINT).

Home department: Strategic Studies

56960 Interpretation of Statutes (Mil)

214(16) Interpretation of Statutes (5L)

Basic introduction, hierarchy and structure of legislation, commencement and demise of legislation, re-enactment and amendment of legislation, traditional approaches towards interpretation of statutes, the presumptions, methods of interpretation and the impact of Constitutional interpretation on statutory interpretation.

Home department: Mercantile and Public Law (Mil)

56979 Management Accounting (Mil)

314(24) Management Accounting (5L, 1P)

Cost accounting fundamentals: the accountant's role in the organisation; an introduction to cost terms and purposes; cost-volume-profit analysis; costing systems; activity-based costing and management.

Cost allocation: general cost allocation; cost allocation: joint products and by-products; allocation of support department costs, common costs and revenues; process costing.

Cost information for decisions and control: flexible budgets; standard costs; variances and management control; inventory costing and capacity analysis.

Cost information for decisions: determining how costs behave; decision-making and relevant information; pricing decisions and cost management.

Home department: Accounting (Mil) and Auditing (Mil)

344(24) Management Accounting (5L, 1P)

Tools for planning and control: income effects of alternative inventory costing methods, the master budget, responsibility accounting and relevance, cost and the decision process.

Cost information for decisions: determining how costs behave; decision-making and relevant information; pricing decisions and cost management; strategy, balanced scorecard and strategic profitability analysis.

Quantitative decision-making: quantitative methods and the decision-making process, regression analysis and learning curves.

Quality and just-in-time: quality, time, and theory of constraints; inventory management, just-in-time, and backflush costing; spoilage, reprocessing and scrap.

Investment decisions and management control systems: capital budgeting and cost analysis; management control systems, transfer pricing, and multinational considerations; performance measurements, compensation, and multinational considerations.

Prerequisite module: Management Accounting (Mil) 314

Home department: Accounting (Mil) and Auditing (Mil)

21563 Mathematics (Mil)

112(8) Calculus I (3L, 2T)

Functions and models; limits and continuity; derivatives and rules of differentiation; definite and indefinite integration; applications of integration.

Home department: Mathematics (Mil)

122(6) Linear Algebra I (3L, 1T)

Vectors; straight lines and planes; circles and spheres; transformation of coordinates; solving of systems of linear equations.

Home department: Mathematics (Mil)

124(12) Service Course in Mathematics (6L, 2T)

Fundamental concepts: products; factorisation; simplifying algebraic expressions; solving equations and inequalities; functions and graphs. Radian measure. Trigonometry. Vectors.

Limits and derivative: algebraic techniques for finding limits; continuous functions; tangent lines; instantaneous velocity; differentiation rules; rates of change; derivative of exponential, logarithmic and trigonometric functions; higher order derivatives; partial derivatives.

Applications of differentiation: optimisation problems; Newton-Raphson algorithm; applications to economics.

Integrals: basic rules of integration; definite integrals; properties of the definite integral; applications.

Matrix algebra: introductory matrix concepts; matrix addition and subtraction; transpose of a matrix; scalar multiplication; determinant and inverse of a matrix; solving systems of linear equations.

Linear programming: geometric approach to linear programming problems; simplex tableau; simplex method.

Home department: Mathematics (Mil)

142(8) Calculus II (3L, 2T)

Applications of differentiation; techniques of integration and numerical integration; arc length and area of a surface of revolution; parametric equations and polar coordinates; modelling with differential equations.

Prerequisite module: Mathematics (Mil) 112

Home department: Mathematics (Mil)

152(6) Linear Algebra II (3L, 1T)

Complex numbers; determinants; real vector spaces; conic sections.

Prerequisite module: Mathematics (Mil) 122

Home department: Mathematics (Mil)

212(10) Analysis I (3L, 2T)

Partial derivatives and functions of more than one variable, multiple integration in various coordinate systems. Vector calculus: line integrals; Green's theorem; surface integrals; divergence theorem; Stokes' theorem.

Prerequisite pass modules: Mathematics (Mil) 112, 142

Home department: Mathematics (Mil)

222(10) Linear Algebra I (3L, 1T)

Real vector spaces; linear transformations and matrix representations; eigenvalues and eigenvectors.

Prerequisite pass modules: Mathematics (Mil) 122, 152

Home department: Mathematics (Mil)

242(10) Analysis II (3L, 2T)

Improper integrals; convergence of sequences; convergence or divergence of series; alternating series; power series; Taylor and Maclaurin series.

Corequisite module: Mathematics (Mil) 212

Prerequisite pass modules: Mathematics (Mil) 112, 142

Home department: Mathematics (Mil)

252(10) Linear Algebra II (3L, 1T)

Introduction to linear programming and network analysis.

Corequisite module: Mathematics (Mil) 222

Prerequisite pass modules: Mathematics (Mil) 122, 152

Home department: Mathematics (Mil)

312(12) Set-theoretical Foundations (3L, 1T)

The aim of this module is to prepare you for studies after calculus in the formal disciplines in mathematical analysis, abstract algebra and general topology, which extensively use set-theoretical constructions, formal language and deductive proof. Topics covered in the module include logical connectives, as well as the logic of compound and quantified statements; the algebra of sets; and relations and functions.

Corequisite module: Mathematics (Mil) 322

Prerequisite pass modules: Mathematics (Mil) 212, 222, 242, 252

Home department: Mathematics (Mil)

322(12) Complex Analyses (3L, 1T)

The differentiability of complex functions; conformal mappings; integration along a path; power series; classification of singularities; residues; applications of contour integration.

Corequisite module: Mathematics (Mil) 312

Prerequisite pass modules: Mathematics (Mil) 212, 222, 242, 252

Home department: Mathematics (Mil)

342(12) Numerical Analyses (3L, 1T)

Mathematical preliminaries and error analysis; solutions of equations in one variable; interpolation and polynomial approximation; numerical differentiation and integration; initial value problems for ordinary differential equations; direct methods for solving linear systems.

Corequisite modules: Mathematics (Mil) 312, 322

Prerequisite pass modules: Mathematics (Mil) 212, 222, 242, 252

Home department: Mathematics (Mil)

352(12) Nonlinear Programming (3L, 1T)

Classical optimisation techniques; convex sets and convex functions; one-dimensional minimisation methods; multivariable unconstrained optimisation techniques; constrained optimisation.

Corequisite modules: Mathematics (Mil) 312, 322

Prerequisite pass modules: Mathematics (Mil) 212, 222, 242, 252

Home department: Mathematics (Mil)

362(12) Introductory Topology (3L, 1T)

Metric and topological spaces; basic concepts; sequences; continuous mappings; uniform continuity; compact spaces and sets; connected spaces and sets.

Corequisite modules: Mathematics (Mil) 312, 322

Prerequisite pass modules: Mathematics (Mil) 212, 222, 242, 252

Home department: Mathematics (Mil)

363(12) Abstract Algebra (3L, 1T)

Groups; rings; residue classes modulo n; quotient rings and fields; Euclidean domains; unique factorisation domains; extensions of fields; applications to straight edge and compass constructions.

Corequisite modules: Mathematics (Mil) 312, 322

Prerequisite pass modules: Mathematics (Mil) 212, 222, 242, 252

Home department: Mathematics (Mil)

12478 Military Ethics

114(8) Military Ethics (5L)

This module will enhance student knowledge about military ethics with links to human rights and international humanitarian law. The student will learn the role of military ethics in military command, be empowered with a dynamic model on moral judgement and how to apply it as a commander.

Home department: Industrial Psychology (Mil)

22969 Military Geography

114(12) Concepts and Techniques in Geography (4L, 2P)

The origin, nature and four main traditions of geography; the impact of humans on the environment; population geography; cultural geography; the geography of spatial behaviour; political geography, economic geography; the geography of natural resources; urban geography; the regional concept; the historical development of cartography; cartometry (map scale, map projections); data acquisition (topographic surveying, aerial photography and remote sensing); map communication (layout, design, map symbols and representation); data classification (statistical, thematic and quantitative); introduction to mapping and GIS.

Home department: Military Geography

144(12) The Physical Environment (4L, 2P)

Movement and seasons of the earth; atmosphere of the earth; insulation and temperature; atmospheric pressure and winds; atmospheric flows and disturbances; atmospheric moisture; the hydrosphere; the South African weather and climate; interpretation of climatological data; synoptic weather charts and climogrammes.

The internal structure of the Earth; endogenesis of continental, sub-continental and regional scale; exogenetic processes (weathering and mass wasting, fluvial processes, ground water and karst topography, water and wind in arid regions); ocean processes (tides, waves, sea currents, coastal processes and landforms); the South African geomorphological landscape; terrain representation and contour interpretation; stream orders; profiles and slopes; digital image interpretation of the physical environment, remote sensing.

Home department: Military Geography

214(20) Military Conduct and the Environment (4L, 2P)

Introduction to environmental theory; the environment as a system; South African environmental law: an overview; environmental resources and conflict; the urban environment and related environmental problems; military actions and the environment; environmental management in the military context – internationally and in South Africa; data-capturing techniques (sampling techniques, questionnaires, workshops, etc.); data processing and interpretation; the procedure for environmental impact assessment; GIS as tool in environmental management.

Home department: Military Geography

244(20) The Geography of Sub-Saharan Africa (4L, 2P)

The following issues regarding the sub-Saharan African region will be studied: the physical landscape; population geography – migration and refugee crisis; the human impact of societies on the environment; historical background; of states and nations; legacies of external influences; culture, conflict and change; economic and human development; the political landscape and instability, medical geography; urban geography; agricultural development; economic and cultural significance of natural resources. Geographical report writing and GIS application on a selected topic of the region.

Home department: Military Geography

314(24) Geographical Information Systems (4L, 3P)

Advance geographical information systems (GIS); advanced application of geographical concepts for GIS-science; geographic information technology in the community with specific reference to the military community; the capturing, storing, retrieval, manipulation, querying and displaying of digital geographic data.

Home department: Military Geography

344(24) Remote Sensing (3L, 4P)

Electromagnetic energy and remote sensing; sensors and platforms; radiometric correction; geometric aspects; image enhancement and visualisation; visual image interpretation; digital classification.

Home department: Military Geography

15377 Military History

114(12) General Military History to 1914 (5L, 1T)

Introduction to the study of military history: the nature, approach and function of military history, basic concepts in military history; warfare in antiquity; medieval warfare; warfare in the early modern era; limited warfare in the eighteenth century; Napoleonic warfare wars of the Industrial Revolution: the American Civil War, Austro-Prussian War, Franco-Prussian War, Anglo-Boer War and the Russo-Japanese War; introduction to war and technology in the twentieth century.

Home department: Military History

144(12) The Military History of Africa to 1945 (5L, 1T)

Introduction to the history of Africa: African historiography; warfare in sub-Sahara Africa since the earliest times; state formation and empires; Islam; trade and slavery; internecine warfare; resistance to colonial conquest; wars of colonial competition; introduction to national liberation, independence and internal conflict in Africa.

Home department: Military History

214(16) South African Military History to the 21st Century (5L, 1T)

South African military historiography; early South African military history c. 1200 – 1652; intergroup conflict at the Cape, 1652 – 1795; the British Conquest of the Cape; the Difaqane/Mfecane, 1815 – 1834; conflicts between the Voortrekkers, Matabele and Zulu, 1836 – 1845; military power and the establishment of white hegemony during the second half of the 19th century; the First Anglo-Boer War, 1880 – 1881; the Second Anglo-Boer War, 1899 – 1902; the establishment and history of the Union Defence Force, 1912 – 1957; South African defence policy and imperial defence; the crisis year 1922; the rise of black resistance in the twentieth century; the South African Defence Force, 1957 – 1994; the South African National Defence Force: integration and transformation since 1994.

Prerequisite modules: Military History 144

Home department: Military History

244(16) The First and Second World Wars, 1914 – 1945 (5L, 1T)

European armies, weapon systems and doctrines on the eve of the First World War; the First World War, 1914 – 1918; South Africa's participation in the First World War, 1914 – 1918; the causes of the Second World War; military developments, 1919 – 1939; the opposing forces in 1939; the Axis conquest of Central and Western Europe, 1939 – 1941; operations in the Mediterranean and North Africa, 1940 – 1943; the German campaigns in Russia, 1941 – 1942; total war against the Axis forces, 1942 – 1945; the war in the Pacific, 1941 – 1945; the revolution in military technology, 1942 – 1945; South Africa's participation in the Second World War; war and society in the era of total war; military historiography to 1945; the social and historiographic impact of the Second World War.

Home department: Military History

314(24) Contemporary Warfare (5L, 1T)

The Cold War; the Korean War, 1950 – 1953; the Vietnam War, 1965 – 1975; the Arab-Israeli Conflict, 1948 – 1982; the Indo-Pakistani War, 1965 – 1971; the Iran-Iraq War (1st Gulf War), 1980 – 1988; the Falkland War, 1982; the 2nd Gulf War, 1991; the 3rd Gulf War, 2003; the influence of technology on conventional warfare since 1945; the post-Cold War era; peacekeeping operations; trends in contemporary military historiography.

Prerequisite module: Military History 244

Home department: Military History

344(24) Low-intensity Conflict in Africa Since 1945 (5L, 1T)

Theoretical background of revolutionary war/internal conflict/low-intensity conflict, with particular reference to the revolutions in Russia, China and Cuba; trends in global terrorism; low-intensity conflict and revolution in Algeria, 1830 – 1962; insurgency, counterinsurgency and civil war in Angola, 1961 – 2001; insurgency, counterinsurgency and civil war in Mozambique, 1964 – 1991; the internal war in Rhodesia, 1972 – 1980; the internal conflict in South Africa, 1976 – 1994; South African counterinsurgency operations in South West Africa/Namibia and Angola, 1966 – 1989; the low-intensity conflict in the Democratic Republic of the Congo, 1960 – 2002; the SANDF, peace-support operations and military intervention in Africa, 1998 – 2002; military history and military professionalism.

Home department: Military History

12479 Military Leadership

144(8) Military Leadership (3L, 2P)

The module will empower students with knowledge on ethical, participative and autocratic leadership, the role of military ethics to be a commander, the dark side of obedience, and how to apply military ethics in different scenarios in the military – with its links to the code of conduct of the SANDF and the Constitution of South Africa.

Prerequisite module: Military Ethics 114

Home department: Industrial Psychology (Mil)

50210 Military Management

114(12) Introduction to Organisation and Resource Management (5L)

This module will focus on the role of managers in the public sector by providing an overview of the management of the different functions within an organisation. Attention will be focused on the unique nature of the public sector; the ethical foundations for public sector officials; the environment in which the public sector manager operates as well as the management functions of the public sector manager.

Home department: Military Management

144(12) General Management (5L)

An overview; the management environment; management of diversity; planning skills; creative problem solving; strategic and operational planning processes; organising skills; organising and delegation; management of change; leadership skills; group and team development; power; conflict and stress; control skills; control of human resources; financial controls of organisation.

Home department: Military Management

214(16) Logistics Management (5L)

The role of logistics in the economy and organisation; customer service; logistics information systems; inventory management; managing materials flow; transport; warehousing; materials handling and packaging; purchasing; global logistics; organising for effective logistics; methods to control logistics performance; supply-chain management; implementation of logistics strategy.

Home department: Military Management

244(16) Financial Management (5L)

An introduction to financial management with reference to the analysis of financial statements and long-term financial planning. The valuation of cash flows, shares and bonds. The analysis of capital budgeting and budget control, short-term financial planning and management.

Home department: Military Management

314(24) Project Management (5L)

Project management concepts, needs identification, proposed solutions and the implementation of projects are addressed as part of the project life cycle. The project manager, project team, types of project organisations and project communication and documentation are analysed as part of the personnel management function. Lastly, project planning and control is studied as part of planning, scheduling, scheduling control, resource considerations and cost planning and performance.

Home department: Military Management

344(24) Strategic Management (5L)

Overview of strategic management: formulation of strategy (formulation of a vision/ mission, external and internal analysis, determining long-term objectives, development of corporate and business strategies, strategic analysis and choice), strategy implementation (operationalisation and institutionalisation of a strategy) and strategic control.

Home department: Military Management

30815 Military Professional Development

178(12) Military professional development (1L)

Civic education, Convention of Service Writing (CSW), military history, musketry, regimental aspects, profession of arms.

Home department: Military Management

46698 Military Technology

212(10) Strength of Materials (3L, 2T)

Statics: forces, moments and couples; equilibrium of forces; free-body diagrams; pulleys; forces in frames; method of sections, loads and structural members; forces in space; centroids of areas and moments of inertia. Stresses and strains: stress and strain relationships; direct stress relationship; Hooke's law; stress concentrations; temperature stresses. Rivets and welding joints: rivet joints; stresses in and yielding of riveted joints; stresses in thin-walled cylinders under high pressure; types of welding joints; strength and design of welding joints. Normal and shear stresses: torque; torque equation; angular displacement; power on axles;

ending moments and shear stresses in straight beams; yielding of beams; compound tresses; Mohr's circle; elastic stability of columns; Euler's equations and relevant restrictions.

Prerequisite modules: Mathematics (Mil) 142, 152

Home department: Military Technology

222(10) Fluid Mechanics (3L, 2T)

Fundamental concepts: definition of fluid; viscosity, compressibility; ideal fluid; ideal gas.

Statics: pressure distribution; pressure measurement; forces on submerged bodies; buoyancy and stability of submerged floating bodies. Dynamics: Euler and Lagrange descriptions; continuity, momentum, and energy equations derived for a control volume. Dimensional analysis: geometric, kinematics and dynamic similitude; Raleigh method; Buckingham Pi-theorem.

Prerequisite modules: Mathematics (Mil) 112, 122, 142, 152

Home department: Military Technology

242(10) Fluid Mechanics (3L, 2T)

Fluid in closed conduits: laminar and turbulent flow; effect of viscosity; equation of motion; friction factors and pipe roughness; minor losses; pumps and piping systems. Flow over immersed bodies: introduction to boundary layer theory; drag on various two-dimensional and three-dimensional bodies; introduction to lift on airfoils. Navier-Stokes equations: equations of motion; applications to laminar flow; introduction to turbulent flow. Propellers: propellers and propulsion; Froude's momentum theory of propulsion; blade element theory; momentum theory applied to helicopter rotor.

Prerequisite modules:

- Military Technology 222
- Mathematics (Mil) 112, 122, 142, 152

Home department: Military Technology

252(10) Numerical Techniques (3L, 2T)

Computer representation and truncation of numbers: number representation; truncation error; rounding error; error propagation. Simultaneous linear equations: Gaussian elimination; matrix inverse; determinants; matrix conditioning. Interpolation: Horner's rule; Taylor's polynomials; polynomial interpolation; Lagrange interpolation; spline functions. Numerical differentiation and integration: interpolatory differentiation; interpolatory quadrature; compound quadrature formulas; Gauss quadrature; improper integrals; estimation and error control; adaptive quadrature. Non-linear equations: graphical approach; bisection method; secant method; Newton's method; convergence and error properties; polynomial roots. Function approximation and data fitting: least-squares approximation; stabilisation of least-squares methods; Fourier analysis. Ordinary differential equations: elementary methods; Runge-Kutta methods; simultaneous and higher-order differential equations; two-point boundary value problems; adaptive step-size; error control.

Prerequisite modules:

- Computer Information Systems (Mil) 114
- Mathematics (Mil) 112, 122, 142, 152

Home department: Military Technology

254(16) Information Warfare (5L, 1T)

Theory of IW: resources; players; offensive IW; defensive IW.

The IW battlegrounds: play; crime; rights of the individual; national security.

Offensive IW: open sources; psy-ops and perception management; insiders; signal interception; computer break-ins and hacking; masquerade; cyber plagues.

Defensive IW: secret codes and hideaways; fake recognition; monitors and gatekeepers.

System security: security awareness; risk management; incident handling; protecting critical infrastructure; encryption policy.

Home department: Military Technology

312(12) Aerodynamics (3L, 2T)

Fluid mechanics: continuity, momentum and energy equation in differential form for incompressible flow. Potential flow: definitions of velocity potential and stream function; standard flow, source and sink in terms of stream function; Biot-Savart's law; determination of flow around a Rankine oval and rotating cylinder; introduction to numerical potential flow. Two-dimensional aerofoil theory: development and solution of general model. Finite aerofoil theory: Helmholtz's vortex theorems; Lancaster-Prandtl aerofoil model; aerofoil properties for finite series distributions; monoplane equation; simplified horseshoe vortex; formation flying effects, ground effect. Computational fluid mechanics: introduction to computational fluid mechanics;

Navier-Stokes and Euler equations; finite difference formulations; numerical solution of Euler equations for elementary flows. Drag: definition of drag components; boundary layer theory.

Prerequisite modules: Military Technology 242, 252

Home department: Military Technology

322(12) Gas Dynamics (3L, 2T)

Fluid mechanics: continuity, momentum and energy equations in differential form for compressible flow; isentropic flow; propagation of small disturbances; stagnation conditions; steady one-dimensional flow of an ideal gas with changing area; Da Laval nozzles; propulsion nozzles. Shock waves: normal and oblique shock waves in ideal gases. Expansion waves: expansion waves in ideal gases. Aerofoils in compressible flow: qualitative discussion on the Prandtl-Glauert corrections and Ackert's theory. Finite wings in supersonic flow: qualitative discussion on the flow model and solution procedures. Transonic and hypersonic flow: qualitative aspects of transonic and hypersonic flow.

Prerequisite modules: Military Technology 242, 252

Home department: Military Technology

314(24) Introduction to Radar Systems (6L, 1T)

Mathematics: Logarithms: exponents; decibel; spherical trigonometry; complex numbers; radar link equation.

Antenna theory: types; electromagnetic principles; propagation of radio waves; parameters; conventional beam forming.

Radar systems: fundamentals; RCS; angular and range detection; radar equation: Doppler; coherence; CW and pulsed radars; MTI radars; circuitry and components; advanced radar systems.

Radar detection: noise; probability of detection and false alarms; pulse integration; detection threshold; CFAR.

Radar waveforms: low and band-pass signals' quadrature components; CW and pulsed; linear FM; high resolution; stepped frequency; pulse compression.

Radar receivers: receiver resonance; ideal receivers; parameters; noise.

Signal processing: Fourier transform and series; convolution and correlation; Z transform.

Prerequisite module: Military Technology 252

Home department: Military Technology

342(12) Aircraft Mechanics: Performance Analysis (3L, 2T)

Aircraft propulsion: Froude's momentum theory applied to a propeller; blade element theory; characteristics of propulsion configurations. Aircraft performance: aircraft performance in steady and accelerating flight, including gliding flight, climbing flight, take-off, landing and horizontal turning flight; determination of speeds for minimum drag and minimum power; optimisation of flight profiles for range and endurance; influence of adverse atmospheric conditions on aircraft performance.

Prerequisite module: Military Technology 312

Home department: Military Technology

344(24) Electronic Warfare (6L, 1T)

Introduction to electronic warfare: glossary of terms; background and structures; objectives.

Electronic warfare support: signal and threat environment; pulse deinterleaving; pulse descriptor words; types of EW receivers; EW processing; probability of intercept (POI) and low probability of intercept (LPI) radars; direction finding.

Jamming principles: classification; jamming-to-signal ratio; burn-through; signal strength and jamming power.

Noise jamming: CW self-screening noise jamming; AM noise jamming; swept-spot noise jamming; polarization noise jamming; average centre-frequency variation of noise jammer; multiple noise/target sources; power centroid tracking; jammer ghosting; AGC control jamming; main lobe stand-off jammer; track-while-scan (TWS) radars; inverse gain against TWS.

Deception jamming: transponder jammers; repeater modulations; range tracking; range gate pull-off and pull-in; time delay and advanced modulation; leading edge trackers; linear repeaters; frequency modulation; velocity gate pull-in and pull-out; amplitude modulation; polarization modulation.

Advanced jamming techniques: cross-polarization jamming; skirt jammer; image jamming.

Jamming techniques against mono-pulse radars: formation jamming; blinking jamming; terrain bounce;

cross-eye jamming.

Chaff theory and applications.

Prerequisite module: Military Technology 314

Home department: Military Technology

352(12) Aircraft mechanics: Stability and control (3L, 2T)

Static stability and control of aircraft: co-ordinate system; stick-fixed and stick-free static longitudinal stability; longitudinal control; manoeuvring; stick-fixed and stick-free lateral and directional stability; directional control; lateral control. Dynamic stability and control of aircraft: general equations of motion; linearisation of equations; analytical and numerical solution of equations; characteristic motions; handling quality; coupling effects.

Prerequisite module: Military Technology 312

Home department: Military Technology

33057 Nautical Science

112(6) Coastal and Deepsea Navigation (4L, 2P)

The classification of Charts. Publications used in maritime navigation. Navigational instruments and aids. Correcting courses and bearings. Chartwork. Standardisation of Chartwork. Incorporate tidal streams and currents. Anchor and manoeuvre using precise pilotage techniques. Fog navigation and traffic separation schemes.

Home department: Nautical Science

122(6) Celestial Navigation (4L, 2P)

Navigational astronomy. The celestial coordinate system. Instruments used in celestial navigation.

Calculate altitudes, declination and meridian passage. Solar and sidereal time used in celestial navigation. Calculating amplitudes and azimuths. Calculating position using Marc St Hillair or Intercept method.

Home department: Nautical Science

144(12) Navigational Theory (6L, 2P)

Elements of oceanography with emphasis on physical oceanography. Included are waves, tides (national and international tidal calculations), currents, coastal processes and meteorology. Chart projections, chart construction and spherical trigonometry in support of loxodromic and orthodomic sailing methods.

Home department: Nautical Science (Mil)

214(20) Navigational Systems (6L, 4P)

Basic components of Electronic Navigation Systems. Radio wave propagation and the frequency spectrum, acoustics and depth sounding systems, vessel speed measurement, satellite navigation systems, the ship's master compass, GMDSS theory and inertial navigation systems.

Home department: Nautical Science (Mil)

244(20) Introduction to Marine Engineering Principles (6L, 4P)

Energy conversion, applied thermodynamics and power output calculations for power plants. Steam and superheated steam calculations using gas tables. Power plants include diesel engines, gas turbines, steam plants and air-independent propulsion. Theory of power plant layout, auxiliary systems, control systems and combination plants are also covered. This semester carries a heavy mathematical component mainly in terms of mechanical engineering (applied thermodynamics).

Home department: Nautical Science (Mil)

314(24) Ship Stability (6L, 4P)

Focus is on transverse static stability including many sub components i.e. dry docking, damaged stability, free surface effect, etc. Further attention is given to second moments and Simpson's Rules. Introductory dynamical stability and submarine stability is also covered. This semester carries a heavy mathematical component mainly in terms of applied mathematics.

Home department: Nautical Science (Mil)

344(24) Introduction to Naval Architecture (6L, 4P)

General ship knowledge; Ship structures including conventional hull forms, tonnages and drafts and resistance. Types of hull designs are investigated including hydrodynamic supported vessels; hydrofoils and air cushion vessels. Calculations on propulsion devices (disc element theory) and steering devices are done.

The ship response to wave spectra are investigated in terms of Response Amplitude Operators (RAOs). This semester carries a heavy mathematical component mainly in terms of fluid dynamics.

Home department: Nautical Science (Mil)

48283 Political Science (Mil)

114(12) Introduction to Politics (6L)

The nature and study of politics; the classification of governments and political systems; political ideologies; models of democracy and their application; the theory and the role of the state; the mass media and political communication; representation, elections and voter behaviour; political parties and party systems; the theory of the *trias politica* with an application to South Africa.

Home department: Political Science (Mil)

144(12) Introduction to International Relations and Civil-Military Relations (6L)

International Relations: the study of international relations; theories of international relations; states and the inter-state system; non-state actors in international relations; Africa's international relations.

Civil-military relations: politics, the military and 'control'; military professionalism; democratic (parliamentary) oversight of the defence sector in Africa and South Africa; the state, the military and non-state armed groups in Africa: PMCs and militias; security sector reform in Africa: norms, challenges and recommendations.

Home department: Political Science (Mil)

214(16) South Africa and the International Community (5L)

Phenomenon of globalisation; institutionalised international co-operation; international intergovernmental organisations; regional sub-system of Southern Africa; conflict and conflict management in Africa; goals and scope of foreign policy; goals and scope of diplomacy; foreign policy in South Africa since 1994; the military dimension in South Africa's foreign policy; South African philosophy and policy on participation in peace missions; principles of best practice engagement in peace missions for Africa and South Africa; the UN Security Council, Africa and South Africa.

Prerequisite modules: Political Science (Mil) 144

Home department: Political Science (Mil)

244(16) Introduction to African Politics (5L, 1T)

The study of African politics; the evolution of the African state; identity politics and the African state; governance, legitimacy and the African state; military rule and the African state; the international relations of Africa; Africa's political economy; political systems and democratisation in Africa.

Prerequisite modules: Political Science (Mil) 114

Home department: Political Science (Mil)

314(24) African Political Thought (5L)

Ideology and the spectrum of political attitudes; the nation-state, nationalism and African nationalism; democracy and democratic government in Africa; capitalism and political economies in Africa; Marxism, socialism and socialism in Africa; ideology and the politics of development in Africa; the application of theory in post-colonial Zambia; the application of theory in post-colonial Tanzania; Steve Biko's Black Consciousness; tenets and manifestation of Pan-Africanism; the African Renaissance; Religion in African Politics.

Prerequisite modules: Political Science (Mil) 214, 244

Home department: Political Science (Mil)

344(24) Africa and the International Political Economy (5L)

Definitions and descriptions central to the study of political economy and the main characteristics of the world economic system; the evolution of the International Political Economy; the study of International Political Economy as a specific field of scholarly interest; Africa's contemporary economic history; internal and external causes of economic decline in Africa; foreign economic policy and the BRICS; lessons from successful states in the Developing World; the USA's and Africa's economy; China and Africa's economy; 'war economies' and the role of natural resources; the role of natural resources in the conflict in Sudan; the role of 'conflict diamonds' in Angola and Sierra Leone.

Prerequisite modules: Political Science (Mil) 214, 244

Home department: Political Science (Mil)

53449 Public and Development Management (Mil)

144(12) Budget Management (5L)

Introduction; why states require funds; objectives of the modern state; functions of the state and service provision; sources of income for the state; tax regimes; state expenses; functions of the budget; expense responsibility; the budget cycle and the defence budget.

Home department: Public and Development Management (Mil)

214(16) Public Labour Relations (5L)

Introduction; definitions; analysis; interaction and the processes in which the labour relations function. Labour relations systems; role of the state; South African labour relations systems in an historical context; the legal framework; labour unions and employer organisations in a theoretical context; communications in the workplace and labour relations procedures. Labour relations in the military environment and labour unions.

Home department: Public and Development Management (Mil)

244(16) Development Management (5L)

Introduction; differing views; theories and an overview of development experiences in South Africa. The developing world; classifications, components, characteristics and measurement of development. Selected issues such as poverty, unemployment and urbanisation. Development management and strategies: the role of the state and NGOs in development. Development planning, participation, community development and the role of the military in development.

Home department: Public and Development Management (Mil)

314(24) Organisational Science (5L)

This module focuses on the development of organisational theory. It addresses the following: organisations as systems; the components of the macro environment; the internal environment of the organisation; organisational effectiveness; the structure and design of institutions; contemporary problems of organisational growth and development of organisational culture and of organisational change and renewal.

Home department: Public and Development Management (Mil)

324(24) Human Resource Development (5L)

The focus of the module is to empower the student with knowledge and skills to evaluate and develop military courses and study material. The module includes the following; strategic training needs analysis; organisational training needs analysis; an analysis of individual training needs for different levels of military courses; development of training material, manuals and programmes; selection of training techniques; presentation skills, training in interpersonal skills, training the officer to become an instructor.

Home department: Industrial Psychology (Mil)

344(24) Public Management under Administrative Law Principles (5L)

The module provides an introduction to South African administrative law as a set of guidelines for effective public management. Attention is given to basic concepts of constitutional law; general principles of administrative law; co-operative government and the sources of administrative law, administrative law relationships, legal subjects and administrative acts; just administrative action and control over administrative action and how these concepts relate to the actions of a public manager.

Home department: Public and Development Management (Mil)

13048 Physics (Mil)

114(12) Mechanics (5L, 4P)

This is a calculus-based module: motion along a straight line; vector algebra; motion in two and three dimensions; force and motion; work and kinetic energy; law of conservation of energy; systems of particles; collisions; rotation; rolling and sliding; torque; angular momentum; equilibrium; density and pressure; fluids in motion; oscillations; waves. Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Corequisite modules: Mathematics (Mil) 112, 122

Home department: Physics (Mil)

124(12) Introduction to Motion, Waves and Optics (5L, 3P)

This is an algebra-based module: kinematics in one dimension; kinematics in two dimensions; forces and Newton's laws of motion; dynamics of uniform circular motion; work and energy; impulse and momentum; rotational kinematics; rotational dynamics; elasticity and simple harmonic motion; pressure; fluids in motion; electromagnetic waves; mirrors, lenses and optical instruments; interference and the wave nature of light. Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Corequisite module: Mathematics (Mil) 124

Home department: Physics (Mil)

144(12) Electricity and Thermodynamics (5L, 4P)

This is a calculus-based module: electric charge; electric fields; Gauss's law; electric potential; capacitance; current and resistance; basic circuits; electric currents and magnetic fields; inductance; electromagnetic oscillations and alternating current; temperature; heat; laws of thermodynamics; kinetic theory of gases; electromagnetic waves; images; interference; diffraction. Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Corequisite modules: Mathematics (Mil) 142, 152

Prerequisite module: Physics (Mil) 114

Home department: Physics (Mil)

154(12) Principles of Electromagnetism and Thermodynamics (5L, 3P)

This is an algebra-based module: electric forces, electric fields; field lines, electric potential energy and the electric potential; capacitance, resistance, basic electric circuits; magnetic fields; electromagnetic induction; alternating current; temperature and heat; transfer of heat; laws of thermodynamics; heat engines; refrigerators; waves and sound; principle of linear superposition; interference phenomena. Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Corequisite module: Mathematics (Mil) 124

Home department: Physics (Mil)

212(10) Applied Wave Theory (3L, 2P)

Basic wave concepts; wave equation; superposition and interference; lenses and mirrors; waves incident on a boundary; transmission spectra; aberration; military application of lasers; stealth. Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Prerequisite pass module: Physics (Mil) 114

Home department: Physics (Mil)

222(10) Alternating Current Theory (3L, 2P)

Network circuits; resistance; Capacitance; inductance; transient LR- and RC circuits; steady state currents in LR, RC and LCR circuits; impedance; phasors in the complex plane; resonance; frequency filtering; complex power; three-phase electricity; transformers; Fourier analysis; amplitude modulation.

Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Corequisite module: Mathematics (Mil) 212

Home department: Physics (Mil)

242(10) Modern Physics (2L, 2P)

Simple atomic models; wave properties of particles; wave/particle duality; Heisenberg's uncertainty principle; special relativity; Schrödinger's equation; particle in a box; harmonic oscillator; eigenfunctions and eigenvalues; time dependence; barrier penetration. Basic statistical physics; black-body radiation; rate equations; population inversions; principals of lasers.

Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Prerequisite pass modules:

- Physics (Mil) 144, 212
- Mathematics (Mil) 212

Home department: Physics (Mil)

252(10) Electromagnetism (2L, 2P)

Electrical current and magnetic field; materials in magnetic fields; Biot-Savart's law; Ampère's law; Divergence and Curl of Electrostatic fields; Steady Currents; Faraday's law; Electrodynamics and Relativity;

Laws of electricity and magnetism in integral form; gradient, divergence and rotation of fields; fundamental theorems of integration, divergence and rotation and their physical implications; Maxwell's equations; electromagnetic waves.

Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Prerequisite pass module: Mathematics (Mil) 212

Home department: Physics (Mil)

312(12) Nuclear Physics (3L, 2P)

Nuclear structure; nuclear models; radioactive decay; a-decay; b-decay; gamma radiation; nuclear reactions; detection; accelerators; elementary particles; nuclear weapons.

Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Prerequisite pass module: Physics (Mil) 242

Home department: Physics (Mil)

322(12) Electronics I (2L, 2P)

Measuring instrument; semiconductor theory; diodes; bipolar junction transistors; field effect transistors; other electronic components; transistor amplifiers; operational amplifiers; feedback and stability; z and h parameters.

Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Prerequisite pass module: Physics (Mil) 222

Home department: Physics (Mil)

332(12) Electronics II (2L, 2P)

Overview of microwave systems and fields, decibels, performance parameters, Smith charts, transmission lines, signal control components, semiconductor amplifiers, oscillators, low-noise receivers, microwave integrated circuits, tubes and antennas.

Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Corequisite module: Physics (Mil) 322

Prerequisite pass module: Physics (Mil) 222

Home department: Physics (Mil)

342(12) Statistical Physics (3L, 2P)

First law of thermodynamics; second law of thermodynamics; third law of thermodynamics; paramagnetism; simple systems; phase equilibria; classical gas; quantum gas; black-body radiation; FD and BE statistics.

Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Prerequisite pass module: Physics (Mil) 242

Home department: Physics (Mil)

352(12) Solid State Physics (3L, 2P)

Crystal geometry; X-ray diffraction; atomic binding forces; crystal defects and material strength; material deformation concepts; phonons and lattice vibrations; three heat-capacity models; heat conductivity; thermal expansion model; four classical effects of electrons in metals; electronic energy bands in solids; band gap; Fermi energy; conduction electron heat capacity; electronic screening in metals; electronic effective mass; semiconductor theory; pn-junction; ferromagnetism and hysteresis; piezo-electricity.

Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Prerequisite pass module: Physics (Mil) 212

Home department: Physics (Mil)

372(12) Quantum Mechanics A (3L, 2P)

Mathematical structure of quantum mechanics: Operators, eigen-states. Schrodinger equation in spherical coordinates. Free particle, wave packet. One-dimensional problems: Infinite-square well, harmonic oscillator. Angular momentum, orbital and spin quantum numbers. Hydrogen atom, quantum numbers. Two-particle systems. Atoms, Solids, and quantum statistical mechanics.

Practical experiments and reports to support and supplement the theoretical work will be continuously assessed.

Prerequisite pass module: Physics (Mil) 242

Prerequisite modules: Mathematics (Mil) 212, 242

Home department: Physics (Mil)

13977 Intelligence Research Methodology and Products

214(16) Intelligence Research Methodology and Products (6L)

Integrating intelligence research methodology as a foundational construct of intelligence-related products (i.e. the descriptive intelligence report, explanatory intelligence report and the estimative/productive intelligence report) applicable to the national security threat/paradigm.

Home department: Political Science (Mil)

13982 Psychological Warfare

354(24) Psychological Warfare (6L)

Definitions of psy-ops; aim & objectives of psy-ops; types & concepts of psy-ops; tactics, methods & scope of psy-ops; history and development of psy-ops: WWI & II, Cold War- era & Post-Cold War era; Civil Affairs; media of communication; target audience analysis; basic principles of and techniques of propaganda; propaganda parameters; propaganda analysis models; relationships among mass persuasion, mass media, and mass society; effect-analysis techniques; types of propaganda; principles and techniques of propaganda; channels of propaganda; ways, methods and means of distributing propaganda; propaganda and the media; construct and deconstruct propaganda messages; "Hearts & Minds"; media of communication, e.g. speech, writing, print (books pamphlets, handbills, posters, newspapers, and magazines), photography and motion pictures, radio and television; categories of military psy-ops; strategic psy-ops, operational psy-ops & tactical psy-ops; psy-ops and intelligence; psy-ops and collection; psy-ops and counter-intelligence; psy-ops and covert action; legal aspects; effect analysis; propaganda analysis (source, content, audience, media & effect).

Home department: Industrial Psychology (Mil)

56294 Security Law (Mil)

144(12) Security Law (5L)

International Law: introduction, sources of international law, international law and municipal law, states and governments, international organisations, individuals, companies and groups, jurisdiction, immunity from jurisdiction, treaties.

Humanitarian Law: human rights, ius ad bellum, ius in bello, the United Nations and peace and security.

Operational Law: private defence, necessity, obedience to orders, official capacity.

Home department: Mercantile and Public Law (Mil)

13980 South African Intelligence History

254(16) South African Intelligence History (5L, 1T)

South African intelligence historiography and methodology; British imperialism, protecting international might and intelligence structures; South Africa, intelligence and security during the two World Wars; South African intelligence on a Cold War and post-Cold War landscape; propaganda and censorship; the rise of nationalism in Africa, the struggle for liberation and subsequent decolonisation – an intelligence and security perspective.

Home department: Military History

45764 Statistics (Mil)

144(12) Statistics for Managers (6L, 2P)

Frequency distributions and graphical representations. Descriptive measures of location and dispersion. Sampling. Introductory probability theory, theoretical distributions and sampling distributions. Introduction to statistical inference: estimation theory and hypothesis testing of sampling averages and proportions. Regression and correlation. Analysis of variance. Introductory categorical data analysis and distribution-free methods. Identification, use, evaluation and interpretation of statistical computer packages and statistical

techniques.

Home department: Mathematics (Mil)

13971 Strategic Intelligence

314 (24) Strategic Intelligence (6L)

An introduction to strategic intelligence theory and practice within the context of statecraft, national security and conflict. Giving consideration to all facets of national security threat-driven strategic intelligence within the contexts of strategic intelligence organisation, processes, products, practice and its governance.

Home department: Strategic Studies

14247 Strategic Studies

214(16) Study of Strategic Thought and Concepts (6L)

Introduction to strategic studies.

Strategic concepts and processes.

Political guidance and civilian control of the strategy process.

The theory of strategy and modern problematic.

The practice of strategy in Africa.

The execution of strategy at the operational level of war.

Home department: Strategic Studies

244(16) Introduction to African Security (6L)

Theoretical approaches to security: the concept of security; schools of thought; perspectives on security; the deepening and broadening of security; securitisation; and the debate on human security. Theoretical approaches to security cooperation: collective security, security regimes and security communities.

Security theory on the developing world: intrastate security; non-military security problematique; and the insecurity dilemma. Traditional and non-traditional security concerns with specific reference to Africa: regime security; military security and conflict; economic security; and security-related questions. Security cooperation in Africa: Southern Africa; West Africa; and the peace and security architecture of the African Union.

South African national security: national security as concept; national values; national interests; national security dilemmas and trade-offs; national security policy formulation; and South African national security policy in regional context.

Home department: Strategic Studies

314(24) Contemporary Thought on Low-intensity Conflict (6L)

The internal conflict spectrum.

The aetiology of internal conflict.

Insurgency: types and strategy.

Civil war: the African dimension.

Civil violence: popular and external support.

Political terrorism; peace support operations.

Organisational profiles: militant movements and government forces.

Home department: Strategic Studies

344(24) Conventional Schools of Thought and Future Warfare (6L)

Introduction to contemporary conventional power. The continental school of thought. The aerospace school of thought. The maritime school of thought. Cyber power as a geographical domain of war.

Home department: Strategic Studies

Research and service bodies

1. Centre for Military Studies

1.1. Nature

The Centre for Military Studies (CEMIS) is a dedicated research centre of excellence for the Faculty of Military Science and is co-located with the Faculty of Military Science at Saldanha.

1.2. Mandate

CEMIS's mandate is to conduct research on defence and security matters, and to provide analytical support to the Department of Defence (DOD) on complex and strategic issues pertaining to national security. It also teaches selected academic modules to the faculty students and at staff colleges of the DOD. Its academic research products are published in academic journals, books, and conference proceedings. It complies with the international best practice and Stellenbosch University's ethical and scientific standards, which include academic integrity and intellectual independence.

1.3. Objectives

1. Analysing security, and factors and trends influencing it, in general and in Southern Africa specifically.
2. Exchanging information on security trends with other national and international research bodies and, where possible, the undertaking of joint projects.
3. Providing guidance to national Defence Force members and civilians who research security trends.
4. Disseminating research results to the security community and civilian target groups by means of presentations, publications and conferences.

1.4. Projects

Among the topics on which members of CEMIS have already delivered presentations, papers, submissions and publications are the following:

- Continual expansion of South African thinking on national security;
- Civil-military relations;
- Military human resources and service systems;
- The management of manpower diversity;
- The increasing articulation of employee needs in the Department of Defence;
- Military professionalism, ethnicity and race in the Department of Defence;
- The nature, problems and challenges of the integration process in the Department of Defence;
- The views of defence force officers on topical issues during the transformation process;
- The growing influence of information processing on the management of conflict and war;
- The influence of information on joint training;
- The nature of the internal deployment of the SA National Defence Force;
- The connection between urban conflict and religious fundamentalism;
- The accountability of intelligence services;
- The principles in accordance with which armed forces, such as the SA National Defence Force, can conduct effective peacekeeping operations;
- Security trends in selected African states;
- The development, capabilities and roles of African armed forces;
- Long-term trends in conflict and security in Africa; and
- The characteristics of scientific security research.

1.5. Address

The Director

Centre for Military Studies

Military Academy

SALDANHA

7395

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2. Telematic Services Department

2.1. The aim of Telematic Services

The aim of Telematic Services is to ensure that the academic programmes on offer at the Military Academy become more cost-effective and more readily accessible to all Department of Defence personnel. Telematic Services has the additional advantage of providing education to personnel whilst they remain active in the labour market and furthermore does not necessitate the high costs associated with the transfer of residential student personnel.

2.2. Functions of Telematic Services

The function of Telematic Services is to provide quality non-residential, contextual higher military education and provide subjects, modules and programmes for which a student may enrol for either degree or non-degree purposes.

2.3. Programmes offered through Telematic Services

- BMil in Human and Organisation Development
- BMil in Organisation and Resource Management
- BMil in Security and Africa Studies

Duration of Each Programme

Maximum: Six years; Minimum: Four years

Admission Requirements

- You must be computer literate before commencing with your studies.
- Compliance with the minimum academic admission requirements as prescribed by Stellenbosch University.

2.4. Address

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Alphabetical list of undergraduate subjects