

NATIONAL DIPLOMA: INFORMATION TECHNOLOGY: SOFTWARE DEVELOPMENT

Qualification code: NDIS12

Campus where offered: Soshanguve South, eMalahleni and Polokwane campuses

Important notification to new applicants:

Students who intend to enrol for this qualification for the first time in 2017 should note that it will not be possible to continue with any Baccalaureus Technologiae as from 2020, since it is being replaced by qualifications aligned with the newly-implemented Higher Education Qualification Sub-Framework. Potential students are advised to consult the University's website for any new qualifications which might not be published in this Prospectus.

Description of field of specialisation

The qualification focuses on software design activities in finding technical solutions to specific practical issues, which places emphasis on requirements, design architecture, software construction, software testing, maintenance and software. Software developers are required to develop systematic models and reliable techniques. The software infrastructure designed is robust in operation for producing high-quality software within the specified time and budgets, and extends from theory and principles to daily practices. On completion of this diploma, a student should have skills in developing a software system. This qualification will prepare students for a number of careers: IT systems analyst, systems designer, programmer, systems developer, systems tester, database developer, database administrator and project manager.

REMARKS

- a. *Admission requirement(s) and selection criteria:*
See qualification NDIT12 listed under the ICT First Years' and Foundation Unit.
- b. *Minimum duration:*
Three years.
- c. *Presentation:*
Day classes.
- d. *Intake for the qualification:*
January only.
- e. *Exclusion and readmission:*
See Chapter 2 of Students' Rules and Regulations.
- f. *Industry Exposure IIIB (Work-Integrated Learning):*
Students may register for this subject only with the permission of the Head of the Department. See Chapter 5 of Students' Rules and Regulations (paragraphs 5.2 and 5.3) for further information.
- g. *Subject credits:*
Subject credits are shown in brackets after each subject.

Key to asterisks:

- * Information does not correspond to information in Report 151.
(Deviations approved by the Senex on 22 June 2011.)



CURRICULUM

FIRST YEAR

Please note: Students will register for all first-year subjects under qualification code NDIT12, where they will be introduced to the basic principles of computers and information technology skills.

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
FIRST SEMESTER			
CFS10AT	Computing Fundamentals IA*	(0,125)	
CGS10AT	Computing Systems IA*	(0,125)	
CMK10AT	Computing Skills IA*	(0,125)	
DSO17AT	Development Software IA	(0,125)	
TOTAL CREDITS FOR THE SEMESTER:		0,500	
SECOND SEMESTER			
CFS10BT	Computing Fundamentals IB*	(0,125)	
CGS10BT	Computing Systems IB*	(0,125)	
CMK10BT	Computing Skills IB*	(0,125)	
DSO17BT	Development Software IB	(0,125)	Development Software IA
TOTAL CREDITS FOR THE SEMESTER:		0,500	
TOTAL CREDITS FOR THE FIRST YEAR:		1,000	

SECOND YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
FIRST SEMESTER			
DSO23AT	Development Software IIA	(0,125)	Development Software IB
ISY23AT	Information Systems IIA	(0,125)	Computing Fundamentals IB
SSF24AT	System Software IIA	(0,125)	Computing Systems IB
TPG111T	Technical Programming I	(0,250)	Development Software IB
TOTAL CREDITS FOR THE SEMESTER:		0,625	
SECOND SEMESTER			
DSO23BT	Development Software IIB	(0,125)	Development Software IIA
ISY23BT	Information Systems IIB	(0,125)	Information Systems IIA
SSF24BT	System Software IIB	(0,125)	Computing Systems IB
TPG201T	Technical Programming II	(0,250)	Technical Programming I
TOTAL CREDITS FOR THE SEMESTER:		0,625	
TOTAL CREDITS FOR THE SECOND YEAR:		1,250	

THIRD YEAR

CODE	SUBJECT	CREDIT	PREREQUISITE SUBJECT(S)
FIRST SEMESTER			
DSO34AT	Development Software IIIA	(0,125)	Development Software IIB
DSO34BT	Development Software IIIB	(0,125)	Development Software IIB



IDC30AT	Industry Exposure IIIA	(0,125)	
ISY34AT	Information Systems IIIA	(0,125)	Information Systems IIB
ISY34BT	Information Systems IIIB	(0,125)	Information Systems IIB
TOTAL CREDITS FOR THE SEMESTER:		0,625	

SECOND SEMESTER

On completion of all the above subjects. Students with only one subject outstanding may be allowed to register for that subject and Industry Exposure IIIB with the approval of the Head of the Department.

IDC30BT	Industry Exposure IIIB	(0,125)	
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TOTAL CREDITS FOR THE SEMESTER: 0,125

TOTAL CREDITS FOR THE THIRD YEAR: **0,750**

TOTAL CREDITS FOR THE QUALIFICATION: **3,000**

