

NATIONAL DIPLOMA: ENVIRONMENTAL HEALTH

Qualification code: NDEH95 - NQF Level 6

Campus where offered: Pretoria Campus (day classes)
Last year of new intake: 2015
Teach-out (phase-out) date: 31 December 2020

Students registered for this qualification should complete their studies according to the teach-out date prescribed for the qualification, subject to the stipulations of Regulation 3.1.11 and 3.1.13 in the Students' Rules and Regulations.

Information on phased-out programmes can be obtained from the TUT website, www.tut.ac.za.

CURRICULUM

Consult the 2015 Faculty Prospectus for the full contents of the qualification.

SUBJECTS PRINTED IN BOLD ARE NOT FOR REGISTRATION PURPOSES.

FIRST YEAR

| CODE | SUBJECT | CREDIT | PREREQUISITE SUBJECT(S) |
|---------|--------------------------|---------|-------------------------|
| APY140T | Anatomy and Physiology I | (0,200) | |
| COD100T | Community Development I | (0,200) | |
| EPN100T | Environmental Planning I | (0,200) | |
| MBI110T | Microbiology I | (0,200) | |

FIRST SEMESTER

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|----------------|----------------------------------|---------|--|
| PCQ100T | Physics and Chemistry I | | |
| PCQ10XT | Physics and Chemistry: Physics I | (0,100) | |

SECOND SEMESTER

| | | | |
|----------------|------------------------------------|---------|--|
| PCQ100T | Physics and Chemistry I | | |
| PCQ10YT | Physics and Chemistry: Chemistry I | (0,100) | |

TOTAL CREDITS FOR THE FIRST YEAR: **1,000**

SECOND YEAR

| CODE | SUBJECT | CREDIT | PREREQUISITE SUBJECT(S) |
|---------|---|---------|---|
| COD200T | Community Development II | (0,200) | Community Development I |
| EPI210T | Epidemiology II | (0,200) | Microbiology I |
| EPW200T | Environmental Pollution: Waste and Water II | (0,200) | Environmental Planning I |
| OHS200T | Occupational Health and Safety II | (0,200) | Anatomy and Physiology I Physics and Chemistry I |
| VVH200T | Food and Meat Hygiene II | (0,200) | Microbiology I |

TOTAL CREDITS FOR THE SECOND YEAR: **1,000**

THIRD YEAR

| CODE | SUBJECT | CREDIT | PREREQUISITE SUBJECT(S) |
|---------|--|---------|--|
| EPA300T | Environmental Pollution: Air and Noise III | (0,200) | Environmental Pollution: Waste and Water II |
| EPI300T | Epidemiology III | (0,200) | Epidemiology II |
| MPT300T | Management Practice III | (0,200) | Community Development II |



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|--------------------------------------|------------------------------------|--------------|-----------------------------------|
| OHS300T | Occupational Health and Safety III | (0,200) | Occupational Health and Safety II |
| VVH300T | Food and Meat Hygiene III | (0,200) | Food and Meat Hygiene II |
| TOTAL CREDITS FOR THE THIRD YEAR: | | 1,000 | |
| TOTAL CREDITS FOR THE QUALIFICATION: | | 3,000 | |

SUBJECT INFORMATION (OVERVIEW OF SYLLABUS)

Please take note that for the 2020 academic year certain modules will be assessed as continuous assessment. Please contact the Academic Department for further information.

The syllabus content is subject to change to accommodate industry changes. Please note that a more detailed syllabus is available at the Department or in the study guide that is applicable to a particular subject. On 25 October 2019, the syllabus content was defined as follows:

A

ANATOMY AND PHYSIOLOGY I (APY140T) 1 X 3-HOUR PAPER

(Subject custodian: Department of Environmental Health)

Organisation of the human body. Chemical compounds and life processes. General view of the cell. The integumentary system. Somatic and special senses. The lymphatic system and immunity. The respiratory system. The urinary system. Fluid, electrolyte and acid base balance. Nutrition and metabolism. The digestive system. The endocrine system. The cardiovascular system. (Total tuition time: ± 228 hours)

C

COMMUNITY DEVELOPMENT I (COD100T) 1 X 3-HOUR PAPER

(Subject custodian: Department of Environmental Health)

Professionalism, ethics, communication, introduction to computers, survival skills, culture, social problems, personality, motivation, emotions and industrial psychology. (Total tuition time: ± 228 hours)

COMMUNITY DEVELOPMENT II (COD200T) 1 X 3-HOUR PAPER

(Subject custodian: Department of Environmental Health)

Didactics, relations, community studies, community profiles, community promotions, environmental psychology. (Total tuition time: ± 228 hours)

E

ENVIRONMENTAL PLANNING I (EPN100T) 1 X 3-HOUR PAPER

(Subject custodian: Department of Environmental Health)

Planning, building and administering housing schemes, town planning, building materials and design of buildings. Environmental surveys, impact studies, environmental auditing and basic environmental management, as well as ecology. (Total tuition time: ± 228 hours)

ENVIRONMENTAL POLLUTION: AIR AND NOISE III (EPA300T) 1 X 3-HOUR PAPER

(Subject custodian: Department of Environmental Health)

Air pollution, combustion and its sources and occurrence, engineering control, legislation, monitoring and climatology. Environmental noise – legal requirements, sources, monitoring and control. (Total tuition time: ± 228 hours)

ENVIRONMENTAL POLLUTION: WASTE AND WATER II (EPW200T) 1 X 3-HOUR PAPER

(Subject custodian: Department of Environmental Health)

Water quality management, sources of water pollution, principles of water quality, sewage treatment, water purification, sanitation, waste technology. (Total tuition time: ± 228 hours)

EPIDEMIOLOGY II (EPI210T) 1 X 3-HOUR PAPER

(Subject custodian: Department of Environmental Health)

Physical, chemical and biological agents, pathogenesis, vector control and agents, host environmental exchange and control. (Total tuition time: ± 228 hours)

EPIDEMIOLOGY III (EPI300T)**1 X 3-HOUR PAPER****(Subject custodian: Department of Environmental Health)**

Epidemiological study approach and methods, biostatistics. (Total tuition time: ± 228 hours)

F**FOOD AND MEAT HYGIENE II (VVH200T)****1 X 3-HOUR PAPER AND PRACTICAL ASSESSMENT****(Subject custodian: Department of Environmental Health)**

Food poisoning, food standards, food legislation and monitoring, the hygienic production and distribution of milk, the preservation of food and general hygiene at food premises. Anatomy of food animals, primary inspection and legislation. (Total tuition time: ± 408 hours)

FOOD AND MEAT HYGIENE III (VVH300T)**1 X 3-HOUR PAPER AND PRACTICAL ASSESSMENT****(Subject custodian: Department of Environmental Health)**

Biochemistry, food poisoning, food preservation, contamination, spoilage and the examination of food, food processing, quality control, food microbiology (laboratory), milk, meat science, abattoir planning and construction, food animals, abattoir practice and legislation, parasitology, pathology, diseases, pathology practical, second-dary inspection and laboratory. Practical. (Total tuition time: ± 408 hours)

M**MANAGEMENT PRACTICE III (MPT300T)****1 X 3-HOUR PAPER****(Subject custodian: Department of Environmental Health)**

Introduction to administrative practice, dynamics of administrative processes, study of central, regional and local administration, management techniques and office practice. (Total tuition time: ± 228 hours)

MICROBIOLOGY I (MBI110T)**1 X 3-HOUR PAPER****(Subject custodian: Department of Biotechnology and Food Technology)**

General microbiology, chemical and physical control, environmental microbiology, food microbiology, occupational microbiology and microbiology ecology. Practical microbiological techniques. (Total tuition time: ± 248 hours)

O**OCCUPATIONAL HEALTH AND SAFETY II (OHS200T)****1 X 3-HOUR PAPER AND****PRACTICAL ASSESSMENT****(Subject custodian: Department of Environmental Health)**

Basic principles of occupational health and safety, legislation, physical, biological and psychological environmental stresses. (Total tuition time: ± 408 hours)

OCCUPATIONAL HEALTH AND SAFETY III (OHS300T)**1 X 3-HOUR PAPER AND****PRACTICAL ASSESSMENT****(Subject custodian: Department of Environmental Health)**

Chemical stress factors, ergonomic environmental factors, safety systems, occupational health and safety programmes and statistics. (Total tuition time: ± 408 hours)

P**PHYSICS AND CHEMISTRY: CHEMISTRY I (PCQ10YT)****1 X 3-HOUR PAPER****(Subject custodian: Department of Chemistry)**

Chemical comparison and stoichiometry. Solutions, acids, basis and salts, chemical reactions, chemical balance. Electrochemistry and redox theory, inorganic chemistry, organic chemistry, wet chemical analysis, basic instrumental analysis. Practical inorganic chemistry. (Total tuition time: ± 124 hours)

PHYSICS AND CHEMISTRY: PHYSICS I (PCQ10XT)**1 X 3-HOUR PAPER****(Subject custodian: Department of Physics)**

Remedial mathematics, units and conversion, vectors and scalar, statics. Kinetics, applied mechanics, density and relative density, pressure thermodynamics, waves, sound, optics. Electricity, magnetism, electromagnetic induction, radioactivity, matter and energy. (Total tuition time: ± 124 hours)

