Year of Study III (Compulsory Units)

Semester 2

CSC321 ICT Project Management
CSC321 ICT Project Management
CSC322 Network and Distributed Programming
CSC326 Compiler Construction
CSC327 Embedded Systems & Mobile Programming
CSC328 Business Intelligence & Analytics
CSC411 Computer Network Security

After Third Year of Study and Before Fourth Year
CSC311 Industrial Attachment

Year of Study IV (Compulsory Units)

Semester 1

CSC414 ICTs and Society
CSC417 Information Systems and Organizations
CSC418 Emerging Technologies Bootcamps
CSC451 Distributed Databases
CSC481 Computer Games Programming
CSC416 Computer Systems Project

Semester 2

CSC416 Computer Systems Project
CSC434 Cloud Computing and Services
CSC452 Information Systems Control Audit
CSC455 Information for Emerging Online Solutions

FEES FOR THE COURSE (in KShs.)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNITS</th>
<th>COST/UNIT</th>
<th>TOTAL</th>
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<tr>
<td>Tuition</td>
<td>52</td>
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<td>936,000</td>
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<th>ITEM</th>
<th>PER YR</th>
<th>NO. OF YRS</th>
<th>TOTAL</th>
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<td>Exam</td>
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<td>Library Fees</td>
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Subtotal 95,000

TOTAL 1,067,000

The fee is payable per semester installments, approximately KShs. 132,000. Applicants from the rest of East Africa will pay an additional 25%, while applicants from the rest of the world will pay an additional 100%.

For More Information Please Contact:

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University of Nairobi
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Email: director-sci@uonbi.ac.ke
Website: sci.uonbi.ac.ke

UNIVERSITY OF NAIROBI
PROGRAMME OBJECTIVES

Facilitate acquisition, adoption and adaptation of Computer Science knowledge, techniques and tools.

Develop graduates with the ability to apply Computer Science knowledge, skills, techniques and tools to create best-possible solutions to practical problems of varying complexity, in a wide range of contexts.

Develop graduates who are innovative and creative, who possess good problem-solving skills and are capable of life-long learning.

Develop all-rounded graduates with demonstrable ethical and professional behaviour, and who possess effective communication, management, entrepreneurial and interpersonal skills.

ADMISSION REQUIREMENTS

Candidates must satisfy the University’s general admission criteria

Eligibility for consideration for admission into the degree of Bachelor of Science in Computer Science in the School of Computing and Informatics is governed by the following minimum admission requirements or an equivalent qualification recognized by Senate:

KCSE Candidates

Candidates must have obtained minimum grade of C+ in the following cluster subjects:

Cluster 1: Mathematics
Cluster 2: Physics
Cluster 3: Second Group II or Any Group III
Cluster 4: Any Group II/Group III/Group IV/Group V

A-Level Candidates

Candidates with 2 principal passes, one of which must be in Mathematics or Physics, and a subsidiary pass with a Credit pass in Physics at ‘O’ level.

Diploma in Computer Studies

Candidates with Ordinary Diploma in Computer Studies or equivalent with, a pass at Credit level, from an institution recognized by Senate.

Higher Diploma in Computer Studies

Candidates with Higher Diploma in Computer Studies or equivalent from an institution recognized by Senate.

Bachelor’s Degree

Candidates with a Bachelor’s degree from an institution recognized by Senate.

CREDIT TRANSFER AND EXEMPTIONS

The point of entry into the programme for candidates other than direct KCSE will be approved by Senate on recommendations of SCI Board and will be based on the qualification of the candidate.

Where a candidate wishes to be exempted from any course unit(s), the candidate will send an application to the Academic Registrar justifying the request and provide evidence of the credentials which support such a request. Such a candidate may be required to sit and pass an ordinary university examination in that course unit.

A candidate, who has taken and passed a course unit offered within another degree programme, may apply for transfer of credit earned within the former programme to this programme.

The total number of units that may be transferred plus those exempted may not exceed one third of the total number of units prescribed in this programme.

COURSE STRUCTURE AND DURATION

The course will extend over a minimum period of 8 semesters and a maximum period of 16 semesters. Each academic year will have at least two semesters.

The Second Year Projects shall be equivalent to two course units.

The Industrial Attachment shall be equivalent to two course units.

The Fourth Year Project shall be equivalent to four course units.

The course is organized into Knowledge Areas.

INDUSTRIAL ATTACHMENT

The Student will undertake Industrial Attachment for a period of 8 weeks between semester 2 of year three and semester 1 of year four, in accordance to the School’s guidelines on Industrial Attachment.

COURSE OUTLINE

Year of Study I (Compulsory Units)

Semester 1

CSC111 Introduction to Computer Systems
CSC112 Introduction to Programming
CSC113 Discrete Mathematics
CSC115 Programming Lab
CSC126 Physics for Computing Systems
CCS001 Communication Skills
CCS009 Elements of Economics

Semester 2

CSC122 Database Systems
CSC123 Data Communications
CSC125 Linear Algebra
CSC127 Object Oriented Programming
CSC211 Data Structures and Algorithms
CSC214 Digital Electronics
CCS010 HIV/AIDS

Year of Study II (Compulsory Units)

Semester 1

CSC114 Differential and Integral Calculus
CSC212 Systems Analysis and Design
CSC213 Computer Architecture
CSC217 Knowledge-based Systems & Programming
CSC223 Operating Systems
CSC224 Software Engineering
CSC225 Computer Networks

Semester 2

CSC116 Probability and Statistics
CSC216 Assembly Language Programming
CSC222 Automata Theory
CSC227 Programming Project
CSC228 Web and Services Programming
CSC229 Machine Learning Algorithms & Programming
CSC313 Foundations of Human Computer Interaction

Year of Study III (Compulsory Units)

Semester 1

CSC311 Analysis and Design of Algorithms
CSC314 Computer Graphics
CSC315 Distributed Systems
CSC316 Intro to Organizations and Management
CSC317 Artificial Intelligence Applications
CSC318 Network Design Implementation and Management
CSC319 Innovation & Entrepreneurship

CSC311 Introduction to Computer Systems
CSC312 Introduction to Programming
CSC313 Discrete Mathematics
CSC315 Programming Lab
CSC326 Physics for Computing Systems
CCS001 Communication Skills
CCS009 Elements of Economics

Semester 2

CSC314 Differential and Integral Calculus
CSC318 Systems Analysis and Design
CSC321 Computer Architecture
CSC324 Knowledge-based Systems & Programming
CSC325 Operating Systems
CSC326 Software Engineering
CSC327 Computer Networks

Semester 3

CSC321 Assembly Language Programming
CSC322 Automata Theory
CSC327 Programming Project
CSC328 Web and Services Programming
CSC329 Machine Learning Algorithms & Programming
CSC333 Foundations of Human Computer Interaction

Year of Study IV (Compulsory Units)

Semester 1

CSC331 Analysis and Design of Algorithms
CSC334 Computer Graphics
CSC335 Distributed Systems
CSC336 Intro to Organizations and Management
CSC337 Artificial Intelligence Applications
CSC338 Network Design Implementation and Management
CSC339 Innovation & Entrepreneurship

CSC331 Introduction to Computer Systems
CSC332 Introduction to Programming
CSC333 Discrete Mathematics
CSC335 Programming Lab
CSC336 Physics for Computing Systems
CCS001 Communication Skills
CCS009 Elements of Economics

Semester 2

CSC334 Differential and Integral Calculus
CSC338 Systems Analysis and Design
CSC341 Computer Architecture
CSC344 Knowledge-based Systems & Programming
CSC345 Operating Systems
CSC346 Software Engineering
CSC347 Computer Networks