**ENTRANCE REQUIREMENT**

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: Group II or Group III or Any Group IV or Any 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
- CSC114 Differential and Integral Calculus
- CCS001 Communication Skills
- CCS009 Economics

**Semester 2**
- CSC121 Programming and Problem-solving
- CSC122 Database Systems
- CSC123 Data Communications
- CSC124 Probability and Statistics
- CSC125 Linear Algebra
- CSC126 Physics for Computing Systems
- CCS010 HIV/AIDS

**Year of Study II (Compulsory Units)**

**Semester 1**
- CSC211 Data Structures and Algorithms
- CSC212 Systems Analysis and Design
- CSC213 Computer Architecture
- CSC214 Digital Electronics
- CSC215 Intro to Artificial Intelligence
- CSC216 Assembly Language Programming
- CSC217 Web Programming and Applications

**Semester 2**
- CSC221 OO Analysis Design and Programming
- CSC222 Automata Theory
- CSC223 Operating Systems
- CSC224 Software Engineering
- CSC225 Computer Networks
- CSC226 Computer Systems and Networking Lab
- CSC227 Programming Project
Year of Study III (Compulsory Units)

Semester 1
CSC311 Analysis and Design of Algorithms
CSC312 Artificial Intelligence Programming
CSC313 Foundations of Human Computer Interaction
CSC314 Computer Graphics
CSC315 Distributed Systems
CSC316 Intro to Organizations and Management

Semester 2
CSC321 ICT Project Management
CSC322 Network and Distributed Programming
CSC323 Machine Learning
CSC324 User-Centred Development and Evaluation
CSC325 Management Information Systems
CSC326 Compiler Construction

Year of Study IV

Semester 1
CSC411 Computer Network Security
CSC412 Knowledge-based Systems
CSC413 Business Management & Entrepreneurship
CSC414 ICTs and Society
CSC416 Computer Systems Project
One Elective from group I

Semester 2
CSC416 Computer Systems Project
Three Elective (from Group II)

GROUPS OF ELECTIVES

Group I
CSC421 Introduction to Language Technologies
CSC422 Design Thinking
CSC423 Wireless Networks and Mobile Computing

Group II Electives
Net-Centric
CSC431 Network Management
CSC432 Service-oriented Computing
CSC433 Multimedia Technologies

Intelligent Systems
CSC441 Knowledge Engineering and Society
CSC442 Knowledge Discovery and Data Mining
CSC443 Advanced Language Technologies
CSC444 Multi-agent Systems

Information Systems
CSC451 Distributed Databases
CSC452 Information Systems Control and Audit
CSC453 Social Network Computing
CSC454 Strategic Information Systems

Computer Architecture
CSC461 Performance Modelling
CSC462 Advanced Computer Architecture
CSC463 Embedded Systems

HCI
CSC471 Interaction Design for Collaboration and Comm

Graphics and Visual Computing
CSC481 Computer Games Programming

FEES FOR THE COURSE (in KSh)

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The fee is payable per semester installments, approximately KSh. 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%.

School of Computing and Informatics
University of Nairobi

BSC IN COMPUTER SCIENCE
(Revised 2011)

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.

For More Information Please Contact:
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