Course Specification
(Bachelor)

Course Title:	Introduction to Computing
Course Code:	IT101
Program:	Information Technology
Department:	Information Technology
College:	Faculty of Computing and Information Technology
Institution:	Northern Border University
Version:	3
Last Revision Date:	October 14, 2024

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: (3)					
2. Course type					
A.	☐ University	☒ College	☐ Department	☐ Track	☐ Others
B.	☒ Required		☐ Elective		
3. Level/year at which this course is offered: (Level 2 / Year 1)					
4. Course general Description:					
This course, using both lecture and laboratory practice, introduces students to basic computer concepts in hardware, software, networking, programming, database, artificial intelligence, application development, data science and management, cloud computing, and cybersecurity. Additional lectures examine social, legal, ethical issues including privacy, intellectual property, and accessibility. Hands-on lab includes spreadsheets, databases, presentation, word processing and editing, and basic programing.					
5. Pre-requirements for this course (if any):					
6. Pre-requirements for this course (if any):					
Nil					
7. Course Main Objective(s):					
This course provides students with the fundamental concepts of computing including computer hardware, software, networking, programming, database, artificial intelligence, application development, data science and management, cloud computing, privacy, ethical issues, office processing applications, and cybersecurity					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	4	100%
2	E-learning		
3	Hybrid		

No	Mode of Instruction	Contact Hours	Percentage
	• Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	30
2.	**Laboratory/Studio**	30
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Identify and understand the principles of computing.	K1	Class / Group discussion, Observation	Oral exams, Objective exams, Written exams (essay)
1.2	Understand the fundamental principles of computer hardware and software.	K1	Class / Group discussion, Observation	Oral exams, Objective exams, Written exams (essay)
1.3	Demonstrate knowledge at the core of computer science fields.	K2	Class / Group discussion, Observation	Oral exams, Objective exams, Written exams (essay)
2.0	**Skills**			
2.1	Practice skills of spreadsheets,	S3	Problem-based learning,	Objective

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	databases, presentations, and word processing tools.		Lab-based learning	Structured Practical Examination (OSPE), Oral exams, Problem-based Assessment
3.0	**Values, autonomy, and responsibility**			
3.1	awareness of related ethical and security issues related to computing.	V1	Problem-based learning, Collaborative learning	Objective Structured Practical Examination (OSPE), Problem-based Assessment

C. Course Content

No	List of Topics	Contact Hours
1.	Information Systems, WWW, and internet	3
2.	Computer hardware	2
3	Computer Software	3
4	Computer networks	3
5	System analysis	3
6	Computer programming	7
7	Database and SQL	7
8	Mobile and cloud computing	2
9	Security, ethics, and privacy	3
10	AI, data science, and data management	3
11	Impact of computing on society	3
12	Spreadsheet	7
13	Word processing and editing	7
14	presentations	7
Total		**60**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	2-15	5
2.	Assignments	2-15	10
3.	Participation	1-15	5
4.	Labs	1-16	20
5.	Midterm Exam	6-12	20
6.	Final Exam	17-18	40

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Sanghera, K. (2007). Fundamentals of Computing. Kendall/Hunt Publishing Co..
Supportive References	Steinberg, G., & Sanghera, K. (2007). Introduction to computer information systems. Kendall/Hunt Publishing Co..
Electronic Materials	. Blackboard System: https://lms.nbu.edu.sa/ 2. Northern Border University Electronic Library: https://www.nbu.edu.sa/AR/Deanships/Library_Issues 3. Saudi Digital Library (SDL): https://portal.sdl.edu.sa/english/
Other Learning Materials	TBA

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	• Classroom • Laboratory
Technology equipment (projector, smart board, software)	• Data Show (Projectors) in Classroom. • Desktop computers · • OS: Windows 10 • Software: Microsoft Office, Oracle, Python
Other equipment (depending on the nature of the specialty)	TBA

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect
Effectiveness of Students assessment	Students	Indirect
Quality of learning resources	Faculty	Direct
The extent to which CLOs have been achieved	Students	Indirect
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	