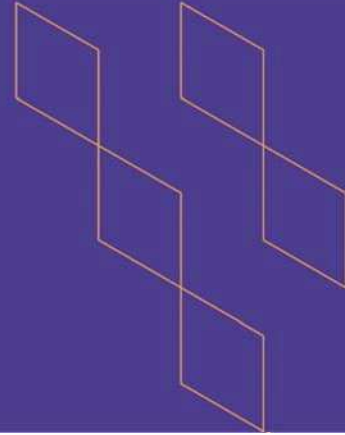




T-104
2022

Course Specification



Course Title: programming 1
Course Code: CS1005
Program: Computer Science
Department: Computer Science & Engineering
College: Computer Science and Information Technology
Institution: Al Baha University
Version: v1.0
Last Revision Date: 24-3-2023



Table of Contents:

Content	Page
A. General Information about the course	
1. Teaching mode	
2. Contact Hours	
B. Course Learning Outcomes, Teaching Strategies and Assessment Methods	
C. Course Content	
D. Student Assessment Activities	
E. Learning Resources and Facilities	
1. References and Learning Resources	
2. Required Facilities and Equipment	
F. Assessment of Course Quality	
G. Specification Approval Data	



A. General information about the course:

Course Identification	
1. Credit hours:	4
2. Course type	
a.	University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Track <input type="checkbox"/> Others <input type="checkbox"/>
b.	Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: 3/1	
4. Course general Description	
This course is designed to provide students with an overview of essential concepts and principles of programming. Upon successful completion of the course, the student will develop a practical understanding and competency in variables, data types, arithmetic, and logical operators, selections, loops, built-in functions, Characters, Strings, Methods, and Arrays.	
5. Pre-requirements for this course (if any):	
Introduction to computing and algorithms (CS1002)	
6. Co- requirements for this course (if any):	
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7. Course Main Objective(s)	
<ul style="list-style-type: none"> ● Introduce the history and concept of programming. ● Distinguish the differences between data types and operators and use them properly. ● Develop a program that has conditions. ● Code program that utilizes looping techniques. ● Employ the main built-in functions. ● Define and invoke value and void methods. ● Code program that utilizes array. ● Participate in class\lab discussions. 	

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	33	60%
2.	E-learning		
3.	Hybrid <ul style="list-style-type: none"> ● Traditional classroom ● E-learning 		
4.	Distance learning		
5.	Lab	22	40%



2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	33
2.	Laboratory/Studio	22
3.	Field	
4.	Tutorial	
5.	Others (specify)	
	Total	55

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

Code	Course Learning Outcomes	Code of CLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Explain the history and concept of programming.	K1	<ul style="list-style-type: none"> Lecture 	<ul style="list-style-type: none"> Midterm exam Final Exam
2.0	Skills			
2.1	Distinguish the differences between data types and operators and use them properly.	S2	<ul style="list-style-type: none"> Tutorials Lectures Exercises 	<ul style="list-style-type: none"> Midterm exam Lab Exam Final Exam
2.2	Develop a program that has conditions.	S2	<ul style="list-style-type: none"> Tutorials Lectures Exercises 	<ul style="list-style-type: none"> Assignment Lab Exam Final Exam
2.3	Code program that utilizes looping techniques.	S2	<ul style="list-style-type: none"> Tutorials Lectures Exercises 	<ul style="list-style-type: none"> Assignment Lab Exam Final Exam
2.4	Employ the main built-in functions.	S2	<ul style="list-style-type: none"> Tutorials Lectures Exercises 	<ul style="list-style-type: none"> Assignment Lab Exam Final Exam
2.5	Create value and void methods.	S1	<ul style="list-style-type: none"> Tutorials Lectures Exercises 	<ul style="list-style-type: none"> Midterm exam Lab Exam Final exam
2.6	Code program that utilizes arrays.	S2	<ul style="list-style-type: none"> Tutorials Lectures Exercises 	<ul style="list-style-type: none"> Assignment Lab Exam Final Exam
3.0	Values, autonomy, and responsibility			
3.1	Participate in class/lab discussions.	V1	<ul style="list-style-type: none"> Class/lab discussion 	<ul style="list-style-type: none"> Rubric

Code	Course Learning Outcomes	Code of CLOs aligned with the program	Teaching Strategies	Assessment Methods

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction	3
2.	Elementary Programming	7
3	Selections	10
4	Built-in Functions	5
5	Loops	10
6	Methods	10
7	Arrays	10
Total		50

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm exam	5	20%
2.	Assignment/Discussion	10-11	20%
3.	Lab exam	12	20%
4	Final exam	13	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	“Introduction to Java Programming, Comprehensive” by D. Liang, Pearson, 2015.
Supportive References	“Introduction to Java Programming and Data Structures, Comprehensive Version” by D. Liang, Pearson, 2019. “Introduction to Programming Using Java” by D. J. Eck, 2019 “Think Java: How to Think Like a Computer Scientist” by A. Downey, C. Mayfield, Green Tea Press, 2016.
Electronic Materials	<ul style="list-style-type: none"> • For API: <ul style="list-style-type: none"> ○ https://docs.oracle.com/javase/8/docs/api/ • For tutorials: <ul style="list-style-type: none"> ○ Java: <ul style="list-style-type: none"> ▪ https://docs.oracle.com/javase/tutorial/ ▪ https://www.tutorialspoint.com/java/ ▪ https://www.javatpoint.com/java-tutorial ▪ https://www.codecademy.com/learn/learn-java ▪ https://www.udemy.com/java-tutorial/
Other Learning Materials	• Sololearn (mobile app) or similar

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	All the lectures should be in a well-prepared lab that can accommodate 25 students at most.
Technology equipment (projector, smart board, software)	<ul style="list-style-type: none"> • A digital image projection system with a connection to a computer. • High-speed Internet connection. • An instructor computer station. • An application to manage labs and learning sessions (e.g. NetSupport School).
Other equipment (depending on the nature of the specialty)	None

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching		
Effectiveness of students' assessment	▪ Students	▪ Survey (indirect)



Assessment Areas/Issues	Assessor	Assessment Methods
	<ul style="list-style-type: none"> Exam Evaluation Committee Course Coordinator 	<ul style="list-style-type: none"> Exam Review (direct) Review of course file (direct)
Quality of learning resources	<ul style="list-style-type: none"> Faculty Students 	<ul style="list-style-type: none"> Survey (indirect)
The extent to which CLOs have been achieved	<ul style="list-style-type: none"> Faculty Program Leaders or Course Coordinator 	<ul style="list-style-type: none"> Exams (direct) Exit Exams (direct)
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	

