## Description of the decision

This course description provides a concise summary of the most important course characteristics and learning outcomes the student is expected to achieve, showing whether they have made the most of the learning opportunities available. They should be linked to the description of the program.

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| Shatt Al-Arab University College | 1. Educational institution |
| Computer technology engineering | 2. Scientific Section/Center |
| FUND 9105/ Programing I | 3. The name/code of the course |
| Weekly / 2 theoretical + 3 practical | 4. Available attendee formats |
| Half-yearly | 5. Chapter/year |
| 150 hours / every week 5 hours | 6. Number of school hours (total) |
| 11/7/2022 | 7. The date this description was created |
| 8. Objectives of the Rapporteur | |
| Understand and consolidate the basics of programming and use it to write simple and complex programs | |
| Analyzing programs and writing appropriate algorithms that help write the appropriate code. | |

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| 9. Course outputs and methods of teaching, learning and evaluation |
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| A. Cognitive objectives<br>A. 1- know the basic programming basics and draw diagrams to illustrate this.<br>A2- Write the appropriate algorithms for the code<br>Understand the basic principles of code and how it works, and translate it into machine language<br>A4—detect bugs and logical phrases<br>5- using software that includes approaches and countries to solve big problems into a small, easy-to-solve group that can be implemented and used more effectively. |
| B. the objectives of the Special Rapporteur<br>B1 – Identification, identification and resolution of software problems.<br>B2 - the real analysis of the problem and its translation into a schema, algorithm, and code<br>B3 - a mental conception of the code and how it can be used in electronic circuits in the future |
| Pedagogy |
| Explain and demonstrate through periodic lectures<br>Student group discussions of selected models of different questions about the application of theories and software fundamentals<br>Use of a meta-method to increase understanding and clarify through programmatic analysis and to demonstrate this in practice in the laboratory<br>These are also the most important tasks in the region |
| Assessment methods |
| Quarterly examinations and periodic examinations<br>Quizzes<br>Other descriptive tests |

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| $C. emotional and value objectives<br>    C1- promote thinking and cull the responsibility of the engineering profession with a professional vision that meets the continuous need for learning and development through the recognition of the latest programming languages and programming of electronic devices<br>'2- using the basics of computer God to support the country's economy and develop the infrastructure through the support of available programs."<br>    C 3 - work meaningful discussions with global software and engineering teams to improve software and engineering skills<br>    C4- effective participation in serving his peers with competence and serving society and the country. |
| Pedagogy |
| <ul><li>Theoretical presentation, relevance, and use of curriculum vocabulary with real-world examples.</li><li>Theoretical application in laboratory with a step-by-step programmatic explanation.</li><li>Group discussions</li></ul> |
| Assessment methods |
| Testing of various kinds every day<br>The student is assigned tasks between writing code and drawing diagrams and writing algorithms<br>Discussion among students about code, diagrams, algorithms and how to best solve the software problem while identifying good students<br>Reports and studies on the methods of writing algorithms and charts showing how code is written between the team |
| (D) General and transferable skills (other skills related to employability and personal development).<br>    D1- communication skills, understanding and readers of the team's charts and algorithms<br>    It is a very important part of the work of the Ministry of Foreign and Security in the country.<br>    D3. Use of modern technology |

| Method of valuation | How to teach | The name of the unit/topic | Required Learning Outcomes | Hours | Week |
|---|---|---|---|---|---|
| Evaluate different evaluation methods for a yield test + a new assignment | Theoretical lectures (Principles and Rules) + practical | Introduction , structure of a c++ program , keyword and identifiers | Concept and comprehensible | 2 hours + 1 workouts a week | 1 |
| | Theoretical lectures (Principles and Rules) + practical | Introduction , structure of a c++ program , keyword and identifiers | | | 2 |
| | Theoretical lectures (Principles and Rules) + practical | Flowchart and algorithm | | | 3 |
| | Theoretical lectures (Principles and Rules) + practical | Flowchart and algorithm. | | | 4 |
| | Theoretical lectures (Principles and Rules) + practical | Operator and expression | | | 5 |
| | Theoretical lectures (Principles and Rules) + practical | Operator and expression. | | | 6 |
| | Theoretical lectures (Principles and Rules) + practical | Control and Selection statement | | | 7 |
| | Theoretical lectures (Principles and Rules) + practical | Control and Selection statement | | | 8 |
| | Theoretical lectures (Principles and Rules) + practical | Control and Selection statement | | | 9 |
| | Theoretical lectures (Principles and Rules) + practical | Iterations | | | 10 |

**10.Course structure**

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| | Theoretical lectures (Principles and Rules) + practical | Iterations | | | 11 |
| | Theoretical lectures (Principles and Rules) + practical | Iterations. | | | 12 |
| | Theoretical lectures (Principles and Rules) + practical | Iterations | | | 13 |
| | Theoretical lectures (Principles and Rules) + practical | Iterations | | | 14 |
| | Theoretical lectures (Principles and Rules) + practical | Array | | | 15 |
| | Theoretical lectures (Principles and Rules) + practical | Array | | | 16 |
| | Theoretical lectures (Principles and Rules) + practical | Array | | | 17 |
| | Theoretical lectures (Principles and Rules) + practical | Array | | | 18 |
| | Theoretical lectures (Principles and Rules) + practical | Function | | | 19 |
| | Theoretical lectures (Principles and Rules) + practical | Function | | | 20 |
| | Theoretical lectures (Principles and Rules) + practical | Function | | | 21 |
| | Theoretical lectures (Principles and Rules) + practical | Structures and unions | | | 22 |
| | Theoretical lectures (Principles and Rules) + practical | Structures and unions | | | 23 |

| | Theoretical lectures (Principles and Rules) + practical | String handling | | | 24 |
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| | Theoretical lectures (Principles and Rules) + practical | String handling | | | 25 |
| | Theoretical lectures (Principles and Rules) + practical | String handling | | | 26 |
| | Theoretical lectures (Principles and Rules) + practical | Pointer | | | 27 |
| | Theoretical lectures (Principles and Rules) + practical | Pointer | | | 28 |
| | Theoretical lectures (Principles and Rules) + practical | File handling | | | 29 |
| | Theoretical lectures (Principles and Rules) + practical | File handling | | | 30 |

| 11. Infrastructure | |
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| C Programming Absolute Beginner's Guide (3rd Edition)  C++ Primer (5th Edition) | 1- Required textbooks |
| 1."starting with C++", Tony Gaddis,Scotte Jones,5th ed.,Pearson, 2004. 2. "C++ the complete refrence", Herbert Schildt, 3rd ed., McGraw-Hill,1998. | 2- Main references (sources) |
| | A- Books and references recommended (scientific journals, reports, ..... research) |
| CS107: C++ Programming | B- It is a good place to be ..... |

| 12.Course Development Plan |
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| Develop curriculum by incorporating new vocabulary<br> Prompts the student to build and evaluates a software application project within the course of the school year<br>Inclusion of periodic courses |