## A. Course Identification and General Information

1. Course title and code:  
   **Computer Programming (2) – CSC-102**

2. Credit hours:  
   4 hrs.

3. Program(s) in which the course is offered.  
   (If general elective available in many programs indicate this rather than list programs)  
   **Bachelor in Information Technology**

4. Name of faculty member responsible for the course:  
   **Dr. Ibrahim Farouck Al-Nahry**

5. Level/year at which this course is offered Level:  
   **Level-2 / 1st Year**

6. Pre-requisites for this course (if any):  
   **Computer Programming (1) – (CSC-101)**

7. Co-requisites for this course (if any):  
   N/A

8. Location if not on main campus:  
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9. Mode of Instruction (mark all that apply)  
   a. Traditional classroom  
      **Yes**  
      What percentage?  
      **100**

   b. Blended (traditional and online)  
      **No**  
      What percentage?  
      **0%**

   c. e-learning  
      **No**  
      What percentage?  
      **0%**

   d. Correspondence  
      **No**  
      What percentage?  
      **0%**

   f. Other  
      **NO**  
      What percentage?  
      **0%**

Comments:
B. Objectives

1. What is the main purpose for this course?
   - Create and use classes and objects.
   - Declare and create an array of objects.
   - Understand inheritance and software reusability.
   - Design and implement systems that are easily extensible and maintainable with polymorphism and delegate.
   - Understand structures, enumerations, partial classes and exceptions handling.
   - Create and manipulate immutable character string objects of class String.
   - Create, read, write, and update files.

2. Briefly describe any plans for developing and improving the course that are being implemented. (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)
   - Focusing on the applicable side.
   - Held sessions to explain the relation between the course and labour market.
   - Activating the use of Internet by accessing the instructor web-site.
   - Periodical reviewing of a course with the Committee on Academic Accreditation in the department.
   - Updating the course contents regularly based on recent computer science developments.

C. Course Description (Note: General description in the form to be used for the Bulletin or Handbook should be attached)

<table>
<thead>
<tr>
<th>1 Topics to be Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Topics</td>
</tr>
<tr>
<td>1- Review</td>
</tr>
<tr>
<td>2- Object-Oriented Programming: Classes and Objects.</td>
</tr>
<tr>
<td>3- Object-Oriented Programming: Inheritance.</td>
</tr>
<tr>
<td>4- Object-Oriented Programming: Polymorphism.</td>
</tr>
</tbody>
</table>
5- Structures, enumerations, and partial classes.  
6- Strings.  
7- Exception Handling.  
8- Files and Streams.

| 2. Course components (total contact hours per semester): |  |
|---|---|---|---|---|---|
| Lecture | Tutorial | Laboratory | Practical | Other: | Total |
| 45 hrs. | 0 | 30 hrs. | 0 | 0 | 75 hrs. |
| Credit | 45 hrs. | 0 | 15 hrs. | 0 | 60 hrs. |

3. Additional private study/learning hours expected for students per week.  

| 4. Development of Learning Outcomes in Domains of Learning |  |
|---|---|---|
| NQF Learning Domains And Course Learning Outcomes | Course Teaching Strategies | Course Assessment Methods |
| 1.0 Knowledge |  |
| 1.1 List the requirements of the problems under study. | • Lecture  
• Small group discussion  
• Research activities  
• Brainstorming | • Exams  
• Analytical reports  
• Group presentation  
• Case studies |
<p>| 1.2 Outline the components of algorithmic solutions. |  |
| 1.3 Write a readable code. |  |</p>
<table>
<thead>
<tr>
<th>1.4</th>
<th>Write cohesive comments inside the code.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>Cognitive Skills</td>
</tr>
<tr>
<td>2.1</td>
<td>Write a logical solution with clear, correct, and concise computer syntax code.</td>
</tr>
<tr>
<td>2.2</td>
<td>Develop the understanding of general concepts of the procedural programming, object-oriented programming, and programming logic.</td>
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<tr>
<td>2.3</td>
<td>Explain the modern software development environment and programming tools.</td>
</tr>
<tr>
<td>2.4</td>
<td>Recognize the importance of proper documentation and programming style, including the use of proper identifiers, comments, and use of whitespace for readability</td>
</tr>
<tr>
<td>3.0</td>
<td>Interpersonal Skills &amp; Responsibility</td>
</tr>
<tr>
<td>3.1</td>
<td>Analyze the requirements of the problems.</td>
</tr>
<tr>
<td>3.2</td>
<td>Demonstrate the effectiveness of teamwork.</td>
</tr>
<tr>
<td>3.3</td>
<td>Evaluate and walkthrough the correctness of algorithmic solutions using free discussions.</td>
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<tr>
<td>4.0</td>
<td>Communication, Information Technology, Numerical</td>
</tr>
<tr>
<td>4.1</td>
<td>Illustrate the components of algorithmic solutions such as inputs, outputs, variables, types, data structures, processes, and decisions.</td>
</tr>
<tr>
<td>4.2</td>
<td>Illustrate the procedural programming, Object Oriented programming, functional programming, and logic programming in order to overcome the difficulties of computer programming</td>
</tr>
<tr>
<td>4.3</td>
<td>Criticize different programming codes for a specific problem.</td>
</tr>
<tr>
<td>5.0</td>
<td>Psychomotor</td>
</tr>
<tr>
<td>5.1</td>
<td>Employ the computer in the design of large programs, which serve main objectives of programming (2)</td>
</tr>
<tr>
<td></td>
<td>Case studies</td>
</tr>
</tbody>
</table>
5. Schedule of Assessment Tasks for Students During the Semester

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Assessment task (eg. essay, test, group project, examination etc.)</th>
<th>Week due</th>
<th>Proportion of Final Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Home works</td>
<td>2,7,10,13</td>
<td>10 %</td>
</tr>
<tr>
<td>2</td>
<td>Midterms Exam.</td>
<td>6, 12</td>
<td>30%</td>
</tr>
<tr>
<td>3</td>
<td>Laboratory</td>
<td>12</td>
<td>20%</td>
</tr>
<tr>
<td>4</td>
<td>Final Exam</td>
<td>16</td>
<td>40%</td>
</tr>
</tbody>
</table>

D. Student Support

1. Arrangements for availability of teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

   - 6 hours/week.

E. Learning Resources

1. Required Text(s)

2. Essential References

3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List)

   N/A

4-.Electronic Materials, Web Sites etc
   - www.wowebook.com
   - Faculty members sites of the College (Dr.Ibrahim Al-nahry page)

5- Other learning material such as computer-based programs/CD, professional standards/regulations
   - Microsoft visual c# program from faculty.
F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (ie number of seats in classrooms and laboratories, extent of computer access etc.)

1. Accommodation (Lecture rooms, laboratories, etc.)
   - Classroom (30 seats)

2. Computing resources
   - Projectors, data show, smart board, etc.
   - Computer for each student in the Lab.

3. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list)
   N/A

G. Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching
   - Course Evaluation Survey conducted by Quality Assurance Committee
   - Office hours discussing the students problems

2. Other Strategies for Evaluation of Teaching by the Program/Department Instructor
   1. CLO Evaluation Survey conducted by Instructor
   2. Outcomes Evaluation Surveys conducted by Instructor
   3. Teaching Evaluation Survey conducted by Academic Advising Committee

3. Processes for Improvement of Teaching
   1. Collecting all results obtained from the different surveys and the concluded recommendations and actions approved by the Department Council for course teaching improvement are reported to next course instructor to take it into consideration.
   2. Faculty Development Program provides training for Faculty Staff.
   3. Review teaching strategies periodically by specialized committee.
   4. Mentoring of teaching by peer faculty members.

4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)
   1. Quality Assurance and Accreditation Unit will review every semester the overall course work and monitor the ILO (indirect learning outcomes) achievement.
   2. Deanship of Development and Quality Assurance will investigate the Quality assurance procedures, and review program accreditation progress.
   3. External reviewers from a reputable university will be invited to evaluate the course binder as well as review the accuracy of the grading policy.
   4. Independent faculty members who were teaching the same course are requested to grade same questions for various students.
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

Self-assessment and external assessment will be carried out. The feedback received from these assessments will be used to plan for further improvement in the course syllabus, teaching method, and delivery of course materials.

Faculty or Teaching Staff: Dr. Ibrahim Al-nahry

Signature: _____________________ Date Report Completed: 22/12/1434H

Received by: _____________________ Dean/Department Head

Signature: _____________________ Date: _______________