



# National Computing Education Accreditation Council NCEAC



NCEAC.DOC.001-E

## COURSE DESCRIPTION

|                                    |                                |
|------------------------------------|--------------------------------|
| <b>NAME OF INSTITUTION</b>         | Lahore Garrison University     |
| <b>PROGRAM (S) TO BE EVALUATED</b> | Computer Science , Spring 2022 |

**Course Description :** Lab Introduction to information and communication technology

|                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
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| Course Code                                                                                                                                                                                                                        | CSC312                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Course Title                                                                                                                                                                                                                       | Introduction to Information and Communication Technology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Credit Hours                                                                                                                                                                                                                       | 2+1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Prerequisites by Course(s) and Topics                                                                                                                                                                                              | none                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Assessment Instruments with Weights<br>(homework, quizzes, midterms, final, programming assignments, lab work, etc.)                                                                                                               | SESSIONAL (Quizzes, Assignments, Presentations) =25 %<br>Midterm Exam =25 %<br>Final Exam = 50%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Course Coordinator                                                                                                                                                                                                                 | Aima Arif                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| URL (if any)                                                                                                                                                                                                                       | none                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Current Catalog Description                                                                                                                                                                                                        | none                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Textbook (or Laboratory Manual for Laboratory Courses)                                                                                                                                                                             | Introduction to Computers 7th International Edition, Peter Norton, N. McGraw-Hill.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Reference Material                                                                                                                                                                                                                 | 1. Using Information Technology: A Practical Introduction to Computer & Communications, 6th Edition. Williams, S. McGraw-Hills. 2. Discovering Computers by Gary B. Shelly & Misty E. Vermaat, Course Technology; 1st Edition(January 25, 2011). 3. Computers, Communications & information: A user's introduction, Sarah, E. Hutchinson. Stacey, C. Swayer. 4. Fundamentals of Information Technology, Alexis L Mathewsleon Leon Press.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Course Goals                                                                                                                                                                                                                       | The main aim of this exam is to provide the awareness of computer technology has made a significant impact in many areas of teaching and learning. The introduction of desktop computers, word-processing packages and presentation preparation tools has improved greatly the quality of the material presented to students and used in lectures. The use of simple database packages and spreadsheets has improved and simplified record keeping at all levels within education                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Course Learning Outcomes (CLOs):                                                                                                                                                                                                   | <table><tr><td>At the end of the course the students will be able to:</td><td>Domain</td><td>BT Level*</td></tr><tr><td>Demonstrate the understanding of the interconnected and ever-changing relationships among the natural, physical, and technological sciences.</td><td>perceptual-motor function</td><td>1</td></tr><tr><td>Evaluate a working knowledge of basic networking, Internet functionality, and network security on multiple platforms, as well as a working knowledge of standard computing tools and applications on multiple computing platforms</td><td>Evaluate a working knowledge of basic networking, Internet functionality, and network security on multiple platforms, as well as a working knowledge of standard computing tools and applications on multiple computing platforms</td><td>2</td></tr><tr><td>Synthesis with basic programming concepts and its application as well as working knowledge of popular computer application</td><td>(c) executive function / complex attention,</td><td></td></tr><tr><td>Evaluate the working knowledge of standard computing tools and applications on multiple computing platforms.</td><td>complex attention,</td><td>3</td></tr><tr><td>To accomplish the most significant impact has come through the use of supportive learning mechanisms such as computer-aided learning (CAL), computer-based training (CBT) and online learning.</td><td>(e) social cognition</td><td>4</td></tr><tr><td>• Gains skill in creating and installing customized programs can also see advancement in the workplace. Businesses spend large amounts of money purchasing, upgrading, and licensing software for use on their company's computers</td><td>social cognition.</td><td>5</td></tr><tr><td colspan="3">* BT= Bloom's Taxonomy, C=Cognitive domain, P=Psychomotor domain, A= Affective domain</td></tr></table> |           |  | At the end of the course the students will be able to: | Domain | BT Level* | Demonstrate the understanding of the interconnected and ever-changing relationships among the natural, physical, and technological sciences. | perceptual-motor function | 1 | Evaluate a working knowledge of basic networking, Internet functionality, and network security on multiple platforms, as well as a working knowledge of standard computing tools and applications on multiple computing platforms | Evaluate a working knowledge of basic networking, Internet functionality, and network security on multiple platforms, as well as a working knowledge of standard computing tools and applications on multiple computing platforms | 2 | Synthesis with basic programming concepts and its application as well as working knowledge of popular computer application | (c) executive function / complex attention, |  | Evaluate the working knowledge of standard computing tools and applications on multiple computing platforms. | complex attention, | 3 | To accomplish the most significant impact has come through the use of supportive learning mechanisms such as computer-aided learning (CAL), computer-based training (CBT) and online learning. | (e) social cognition | 4 | • Gains skill in creating and installing customized programs can also see advancement in the workplace. Businesses spend large amounts of money purchasing, upgrading, and licensing software for use on their company's computers | social cognition. | 5 | * BT= Bloom's Taxonomy, C=Cognitive domain, P=Psychomotor domain, A= Affective domain |  |  |
| At the end of the course the students will be able to:                                                                                                                                                                             | Domain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | BT Level* |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Demonstrate the understanding of the interconnected and ever-changing relationships among the natural, physical, and technological sciences.                                                                                       | perceptual-motor function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1         |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Evaluate a working knowledge of basic networking, Internet functionality, and network security on multiple platforms, as well as a working knowledge of standard computing tools and applications on multiple computing platforms  | Evaluate a working knowledge of basic networking, Internet functionality, and network security on multiple platforms, as well as a working knowledge of standard computing tools and applications on multiple computing platforms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2         |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Synthesis with basic programming concepts and its application as well as working knowledge of popular computer application                                                                                                         | (c) executive function / complex attention,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| Evaluate the working knowledge of standard computing tools and applications on multiple computing platforms.                                                                                                                       | complex attention,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3         |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| To accomplish the most significant impact has come through the use of supportive learning mechanisms such as computer-aided learning (CAL), computer-based training (CBT) and online learning.                                     | (e) social cognition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4         |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| • Gains skill in creating and installing customized programs can also see advancement in the workplace. Businesses spend large amounts of money purchasing, upgrading, and licensing software for use on their company's computers | social cognition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 5         |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |
| * BT= Bloom's Taxonomy, C=Cognitive domain, P=Psychomotor domain, A= Affective domain                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |  |                                                        |        |           |                                                                                                                                              |                           |   |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |   |                                                                                                                            |                                             |  |                                                                                                              |                    |   |                                                                                                                                                                                                |                      |   |                                                                                                                                                                                                                                    |                   |   |                                                                                       |  |  |

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|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------|-----------------------------------------------------------------------------------------------|
| <b>Topics Covered in the Course, with Number of Lectures on Each Topic</b> (assume 15-week instruction and one-hour lectures) | <b>Week</b>                | <b>Lecture</b> | <b>Topics Covered</b>                                                                         |
|                                                                                                                               | Week 1                     | 1              | Introduction of Course, MS-Word use                                                           |
|                                                                                                                               |                            | 2              | Create a new document and explanation of ribbons                                              |
|                                                                                                                               | Week 2                     | 3              | Explanation of Home Tab and applying various font styles, bullets, text colors, shortcut keys |
|                                                                                                                               |                            | 4              | Explanation of Insert Tab. Making tables, pictures, using shapes and clipart                  |
|                                                                                                                               | Week 3                     | 5              | Inserting Page breaks, Header Footer, Word Art, Drop Cap, Page numbers                        |
|                                                                                                                               |                            | 6              | Inserting Page breaks, Header Footer, Word Art, Drop Cap, Page numbers                        |
|                                                                                                                               | Week 4                     | 7              | Difference of Save, Save As, Undo & Redo, Cut & Copy Delete & Backspace, Class task.          |
|                                                                                                                               |                            | 8              | Explanation of view and design and layout mode                                                |
|                                                                                                                               | Week 5                     | 9              | MS PowerPoint Introduction                                                                    |
|                                                                                                                               |                            | 10             | MS PowerPoint layout                                                                          |
|                                                                                                                               | Week 6                     | 11             | Creation of slides                                                                            |
|                                                                                                                               |                            | 12             | Applying animations settings designs                                                          |
|                                                                                                                               | Week 7                     | 13             | Networking Basics, Use of network, types of networks, how networks are structured             |
|                                                                                                                               |                            | 14             | Introduction of Course, MS-Word use                                                           |
|                                                                                                                               | <b>Week 8</b>              | <b>1 hours</b> | <b>Mid Term</b>                                                                               |
|                                                                                                                               | Week 9                     | 15             | Mid Term                                                                                      |
|                                                                                                                               |                            | 16             | Mid Term                                                                                      |
|                                                                                                                               | Week 10                    | 17             | Create a new document and explanation of ribbons                                              |
|                                                                                                                               |                            | 18             | Create a CV                                                                                   |
|                                                                                                                               | Week 11                    | 19             | form creation                                                                                 |
|                                                                                                                               |                            | 20             | broucher and flayer                                                                           |
|                                                                                                                               | Week 12                    | 21             | Explanation of Home Tab and applying various font styles, bullets, text colors, shortcut keys |
|                                                                                                                               |                            | 22             | MS access Layout                                                                              |
|                                                                                                                               | Week 13                    | 23             | Creating database                                                                             |
|                                                                                                                               |                            | 24             | Creating form , report                                                                        |
|                                                                                                                               | Week 14                    | 25             | Digital literacy                                                                              |
|                                                                                                                               |                            | 26             | Ecoommerce website and basics                                                                 |
|                                                                                                                               | Week 15                    | 27             | MS-EXCEL Introduction                                                                         |
|                                                                                                                               |                            | 28             | MS excel layout                                                                               |
|                                                                                                                               | Week 16                    | 29             | Cell, Cell Address, Making sheets, Formula Bar                                                |
|                                                                                                                               |                            | 30             | Explanations of Excel Ribbons                                                                 |
|                                                                                                                               | <b>Week 17</b>             | <b>2 hours</b> | <b>Final Term</b>                                                                             |
| Laboratory Projects/Experiments Done in the Course                                                                            | RESEARCH PAPR AND DATABASE |                |                                                                                               |
| Programming Assignments Done in the Course                                                                                    | none                       |                |                                                                                               |

**Instructor Name** Aima Arif

**Instructor Signature**

**Date**