

# PABLO

|                               |   |   |              |                   |
|-------------------------------|---|---|--------------|-------------------|
| <b>Course Title</b>           | <b>COMPUTER LITERACY (2 CREDITS)</b>  |   |              |                   |
| <b>Course Code</b>            | <b>UENR 103</b>   |   |              |                   |
| <b>Purpose and Objectives</b> | <p>This course provides the students with the following;</p> <ul style="list-style-type: none"> <li>familiarization with both computer hardware and software</li> <li>demonstrate an understanding of the role computers play in our lives now and in the future;</li> <li>demonstrate knowledge of application software functions.</li> <li>use a graphic interface; Format and edit word processing documents; Use excels data storage, graphing and mathematical functions; Maintain database files and create data base reports</li> <li>understand the importance of micro controllers, processors, programming, digital logic, coding, embedded systems and networking in the functioning of computers</li> <li>solve simple societal problems using development board incorporating computer software and hardware systems.</li> </ul>   |   |              |                   |
| <b>Content</b>                | <p>This course abrase the student with knowledge of how computers work. The software and hardware part of computer will be considered. Opportunities for hands-on experience using microcomputer applications, micro-controller and development board will be included. The various part computer systems, electronic/logic design and how they interact are studied with the aim of providing a mental picture of how data is treated by a computer. Computer maintenance and fault diagnosis are part of this course. Software applications in document editing, database organization, graphing, presentation, drawing, mathematical analysis of data with functions are introduce to students. Software to be used to achieve the above include Microsoft Office word processing, Excel, Presentation, Access database management systems and web apps. Students will be introduced to different Operating System (OS), editors, programming languages and useful development in the software space. Computer literacy introduce student to computer networking and new development in networking. Students will identify networking terms, understand how data transmit over the network, the internet, data protect privacy, security, ethics and future of technology. Digital Representation is another important part of this course. A major part of this course is students building a project that uses the knowledge of computer literacy, software and hardware (micro controller base) to solve a societal problem.</p> <p>This course includes a broad series of lessons and activities that offer a variety of modalities for ultimate student engagement and content retention.</p> |   |              |                   |
| <b>Course Delivery</b>        | Lectures, tutorials, seminars and laboratory practical.   |   |              |                   |
| <b>Week No.</b>               | <b>Date</b>   | <b>Lecture Course</b>   | <b>Venue</b> | <b>Assessment</b> |
| 1                             |   | Introduction to computer literacy <b>O.J</b>  | SH 8/ LT10   | Exercise          |
| 2                             |   | Introduction to Computer software and hardware systems and their functions <b>O.J</b> | SH 8/ LT10   | Exercise          |
| 3                             |   | Computer software <b>O.J</b>  | SH 8/ LT10   | Quiz              |

|         |  |   |            |                    |
|---------|--|---|------------|--------------------|
| 4       |  | Computer hardware, Computer maintenance and fault diagnosis <b>O.J</b>  | SH 8/ LT10 |                    |
| 5       |  | Introduction to software applications in document editing, database organization, graphing, presentation, drawing, mathematical analysis of data. Microsoft Office Word processing <b>O.J</b> | SH 8/ LT10 | Lab/<br>Exercise   |
| 6       |  | Introduction to Microsoft Office Excel and Presentation, <b>O.J</b>   | SH 8/ LT10 | Lab/<br>Exercise   |
| 7       |  | Introduction to Microsoft Office Access database management systems. <b>O.J</b>   | SH 8/ LT10 | Lab/<br>Exercise   |
| 8       |  | Introduction to operating system (OS), editors, programming languages, useful development in the software space and web applications. <b>O.J</b>  | SH 8/ LT10 | Mid-Semester exams |
| 9       |  | Introduction to computer networking, the internet, network security and ethics <b>O.J</b>   | SH 8/ LT10 |                    |
| 10      |  | Number systems; 1's and 2's complement, binary, octal, decimal, hexadecimal. Digital logic; logic gates <b>O.J</b>  | SH 8/ LT10 | Exercise           |
| 11      |  | Introduction to micro-computer applications, micro-controller, processors and development board. Introduction to embedded systems <b>O.J</b>  | SH 8/ LT10 | Lab                |
| 12      |  | Project work <b>O.J</b>   | SH 8/ LT10 | Lab                |
| 13      |  | Project presentation <b>O.J</b>   | SH 8/ LT10 | Presentation       |
| 14      |  | <b>Revision</b>   |            |                    |
| 15 - 16 |  | <b>Examination (60%)</b>  |            |                    |

**O.J** = Owusu Joseph

### Reading Material (new)

- Shelly Cashman Series Discovering Computers & Microsoft Office 365 & Office 2016: A Fundamental Combined Approach 1st Edition, ISBN-13: 978-1305871809, ISBN-10: 1305871804, Cengage Learning; 1st edition (February 16, 2016)
- Jennifer T. Campbell, Steven M. Freund, Mark Frydenberg, Mary Z. Last, Philip J. Pratt, Computers Made Easy: From Dummy to Geek, James Bernstein, ISBN-10: 1983154830 ISBN-13: 9781983154836, Independently published (June 12, 2018)

- Jamrich Parsons, Dan Oja, Practical Computer Literacy, ISBN-10: 128507677X, ISBN-13: 9781285076775, Cengage Learning, 4th edition, 2013.
- Connie Morrison, Dolores Wells, Lisa Ruffolo; Computer Literacy BASICS: A Comprehensive Guide to IC3, ISBN-13: 978-1285766584, ISBN-10: 128576658X, Cengage Learning; 5th edition, 2014.
- Deborah Morley, Charles S. Parker, Understanding Computers: Today and Tomorrow: Comprehensive, ISBN-10: 1305656318, ISBN-13: 978-1305656314, Cengage Learning; 16th edition, 2016.