



Course Descriptions

CPTC 111 INTRODUCTION TO COMPUTER TECHNOLOGY (3 Units)- This subject focuses the basic understanding of computers and their use in business through the study of windows and Open source Application Programs like Microsoft Word, Excel, PowerPoint, and communication program like Yahoo Messenger and other known applications.

CPTC 122 COMPUTER CIRCUITS AND SYSTEM (3 Units)-This Subject introduces the students about Combinational Logic Circuits Basics, Karnaugh Maps And Implicates, Parity Generator And Display Decoder, Carry Look Ahead Adders, 2s Complement Subtractor and BCD Adder, Introduction to Sequential Circuits, S-R,J-K and D Flip Flops, T Flip Flops, UP/Down Counters, Shift Registers, State Machines, Design of Synchronous Sequential Circuits, Mealy and Moore Circuits, Encoders and Decoders and Programmable Logic Devices.

CPTC 123 INTRODUCTION TO OPERATING SYSTEM (3 Units)-This module aims to introduce students to: Operating systems history and changing roles Operating systems types and designs Operating systems management and system administration

CPTC 215 PRACTICUM I (2 Units) -This subject introduces and train students in **lectures** and **in campus** exposure equivalent to 80 hours. The students will learn the basic principles of the practicum, ethics, discipline, Christian values and importance of their course in the industry. A review of some major subjects taken with hands-on, develop the importance of team spirit, preparedness, mastery and troubleshooting techniques. Train them to be a professional computer Technologist. Apply basic repair and troubleshooting on computer units to familiarize the parts, brands, models, specifications, and proper tool handling techniques.

CPTC 214 COMPUTER HARDWARE TECHNOLOGY (3 Units) -This course aims to introduce students to: Computer Hardware in general; basic Computer Hardware concepts; basic Computer Hardware installation; Computer Hardware types and designs; Computer Hardware selection, deployment and management.

CPTC 226 PCB LAYOUT AND PRODUCTION (3 Units) -This subject deals with the step-by step procedures in developing new Printed Circuit Board or PCB using traditional and digital method. It helps students to create new ideas in PCB making of any electronics and computer devices. Students will learn to produce quality and quantity PCB that leads to promote originality, uniqueness, advance and marketable. At the end of the semester, students are expected to pass their individual design, ready to use PCB, made in PCB designer software.

CPTC 227 COMPUTER GRAPHICS (3 Units) - A program that focuses on the software, hardware, and mathematical tools used to represent, display, and manipulate topological, two-, and three-dimensional objects on a computer screen and that prepares individuals to function as computer graphics specialists. Includes instruction in graphics software and systems; digital multimedia; graphic design; graphics devices, processors, and standards; attributes and transformations; projections; surface identification and rendering; color theory and application; and applicable geometry and algorithms

CPTC 228 PRACTICUM II (3 Units) - This subject is designed for all candidates qualified practicum students that already taken practicum I and certified by the assigned instructor. The students are assigned to the tie-up company's service centers related to their course and expected to finished (160 hours) of training under the follow-ups supervision of the course instructor and supervisor of the in charged company. The student will show their knowledge and troubleshooting techniques, actual application of good values, discipline, and fulfilling the criteria of practicum in their supervisor, co-practicum-er and all the members of the company's/service center. This level of practicum will develop their technical skills or hardware and software troubleshooting techniques showed by their in-charged chief and group of computer systems, hardware analyst.

CPTC 314 ADVANCE ELECTRONICS AND COMPUTER (3 Units) - This course study and master the use of measuring tools and equipment, students are guided in troubleshooting electronics and computer hardware's from input to output peripherals. Learn to debug software problems, like application error, file recovery and system stability, countering hackers attempt, security and privacy of computer and users file, Learn the professional way in maintaining electronics and computer hardware's. Students will learn how to install, configure, and administer Windows and Linux Server operating systems to manage client's operating system application requests.

CPTC 311 PROGRAMMING I (3 Units) - The primary focus is to train students to work effectively as entry-level developers. In the beginning students learn the fundamentals of computer programming using one specific object-oriented language. Afterwards, students will learn the software development process. They'll work on projects reflecting industry work scenarios. Students also learn how to program using other important programming languages and are introduced to various software tools that aid in the many facets of the software development process.

CPTC 319 MULTI -MEDIA DESIGN AND PRODUCTION (3 Units) - Analysis, design and implementation of multimedia software, primarily for e-learning courses or training. Projects emphasize user interface design, content design with storyboards or scripts, creation of graphics, animation, audio and video materials, and software development using high level authoring tools, such as Flash.

CPTC 321 SHOP LAYOUT AND MANAGEMENT (3 Units) - This Subject deals with the Concepts of Management and Organization – Functions of Management – Evolution of Management Thought: Taylor's Scientific Management, Fayol's Principles of Management, Douglas Mc-Gregor's Theory X and Theory Y, Mayo's Hawthorne Experiments, Hertzberg's Two Factor Theory of Motivation, Maslow's Hierarchy of Human Needs – Systems Approach to Management.

CPTC 412 PROGRAMMING II (3 Units) - The students will learn in Designing, planning and implementing software projects for high traffic Internet sites and mobile platforms from end-to-end. The students will learn web designing, front-end development, project management, system administration, and Database Administration to implement high-performance dynamic and interactive web-based applications in a fast-paced, mission critical environment. Focus will be on server-side technical design and implementation of complex, strategic initiatives. The primary focus of this course is to create, develop, improve and maintain all of the various platforms and applications that feed and support consumer facing web site, mobile and other application platforms. The students will be highly motivated to build robust back-end systems.

CPTC 413 DATABASE MANAGEMENT (3 Units) - This course introduces database design and creation using a DBMS product. Emphasis is on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

CPTC 414 MICROPROCESSOR (3 Units) - This course introduces microprocessor architecture and microcomputer systems, including memory and input/output interfacing. Topics include assembly language programming, bus architecture, bus cycle types, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.

CPTC 415 SYSTEMS ANALYSIS AND DESIGN (3 Units) - This course provides a methodical approach to developing computer systems including systems planning, analysis, design, testing, implementation and software maintenance. Emphasis is on the strategies and techniques of systems analysis and design for producing logical methodologies for dealing with complexity in the development of information systems. The course approaches the development of information systems from a problem-solving perspective. This course builds upon concepts to which the student has been exposed in previous classes.

CPTC 416 COMPUTER NETWORKING (3 units) - This subject focuses on data communications, network architectures, communication protocols, data link control, medium access control; introduction to local area networks metropolitan area networks and wide area networks; introduction to Internet and TCP/IP.

CPTC 417 PROJECT DESIGN AND DEVELOPMENT(3 Units) - This subject students will draw , invent and develop on their knowledge gained in semesters 1 to 7 in Electronic Design, Computer Circuits System, Software and application programming , theory and laboratory experience to start inventing an actual project /device as a group activity and project to be submitted at the end of the semester. The Project should be new, unique, re engineered, redesign, customize and fresh for PATENT application.

CPTC 428 PRACTICUM III (6 Units) - This subject is the preparation for Job Hunting to all BS Comptech graduating students in different companies. Through this subject, student can recall all the knowledge about their course and use in the actual situation. They are expected to finish 600 hours.