**OBE Course Syllabus**

**1st Semester, A.Y. 2023-2024**

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| **Vision Statement:** | | | | An advanced and adaptive university pursuing quality education, lifelong gender – sensitive learning environment, responsive research – based community programs and transparent governance with sustainable resource generation by 2025 | | | | **Mission Statement:** | | To provide excellence in instruction, research, extension and production that magnifies W.I.S.D.O.M. in leadership through Total Quality Management System responsive to the challenges of the 21st century education. | | | | | | |
| **Core Values:**  *Educating People, Enriching Lives and Expanding Opportunities with:*  **W** – Wisdom for Truth and Knowledge  **I** – Ingenuity in Research, Extension and Production  **S** – Sustainability of Good Deeds  **D** – Dexterity in Management of Resources  **O** – Orchestrator of Good Practice in Achieving Goals, and  **M** – Magnanimity in Dealing with People and God’s Creation | | | | | | | | | | | | | | | | |
| **MSC Graduates’ Attributes (Exit or Culminating Outcomes)** | | | | | | | | | | | | | | | | |
| ***Every MSCian Graduate is -*** | | | | | | | | ***Institutional Outcomes: Graduates of Marinduque State College -*** | | | | | | | | |
| * ***M***orally upright, patriotic and law-abiding citizen * ***S***killed, competent and competitive professional * ***C***reative, innovative, resourceful and entrepreneurial individual * ***I***ntellectual lifelong learner and generator of new knowledge * ***A***r­­­­­­­­­­ticulate and reflective communicator * ***N***urturing and passionate leader | | | | | | | | * Demonstrate responsible citizenship, cultural pride, ecological preservation, and ethical decision-making. * Practice skills, abilities and competencies with precision and mastery at par with global standards. * Contribute to the improvement of quality of life by engaging in ingenious and productive activities. * Think critically, generate new knowledge, create and reengineer techniques and methodologies, and systematize progressive processes toward economic growth and sustainability. * Contemplate, communicate and exchange ideas and insights meaningfully and with care and proficiency. * Cultivate and foster justness, camaraderie, peace and unit amidst diversity. | | | | | | | | |
| **Quality Policy:** | | | Marinduque State College is a research-driven higher education institution committed to provide excellent services to its stakeholders the highest level of satisfaction through a quality management system imbued with its Core Values, guided by its Ten-Point Agenda and by adhering to globally-adopted quality standards.  *We endeavor to:*   1. Establish harmonious partnership with our stakeholders and clients in order to effect mutually beneficial results. 2. Maintain the highest degree of excellence and work ethics that respect the innate dedication and commitment of our employees and stakeholders. 3. Develop a culture of continual improvement in our processes. 4. Sustain effective, efficient and accessible delivery of goods and services to meet the needs of the College and to comply with applicable requirements. 5. Maintain accountable, transparent, consultative and participative leadership between and among employees and stakeholders in decision-making processes. | | | | | | | | | | | | | |
| **Course Title:** | Web Programming 1 | | | | **Course Description:** | | It is an introduction to the design, creation and maintenance of web pages. Students will be able to evaluate and create quality web pages with accordance to the web design principles and standards using hypertext mark-up languages, scripting languages and web design tools and application. | | | | | **Course Code:** | ITS123 | **Credit Units:** | | 3 |
| **Course Prerequisites/(Co-requisites):** | | | | | | |  | | **Course Requirements:** | | Major Exam, Personal Portfolio, Project | | | | | |
| **Program Outcomes:** | | 1. Apply knowledge of computing, science and mathematics appropriate to the discipline. 2. Understand best practices and standards and their applications. 3. Analyze complex problems and identify and define the computing requirements to its solutions. 4. Identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems. 5. Design, implement and evaluate computer-based systems, processes, components, or programs 6. Integrate IT-based solutions into the user environment effectively. 7. Apply knowledge through the use of current techniques, skills, tools and practices necessary for the IT profession. 8. Function effectively as a member or leader of a development team recognizing the different roles within a team to accomplish a common goal. 9. Assist in the creation of an effective IT project plan. 10. Communicate effectively with the computing community and with society at large about complex computing activities through logical writing, presentations, and clear instructions. 11. Analyze the local and global impact of computing information technology on individuals, organizations, and society. 12. Understand professional, ethical, legal, security and social issues and responsibilities in the utilization of information technology. 13. Recognize the need for and engage in planning self-learning and improving performance as a foundation for continuing professional development. | | | | | | | | | | | | | | |
| **Course Intended Learning Outcomes (CILOs):** | | | | | | *At the end of the course, the learners can:* | | | **PO Link/s** | *At the end of the course, the learners can:* | | | | | **PO Link/s** | |
| 1. Explore trend in the 21st Century Web Designing concepts and wide variety of design motivations.  * Understand how Web Designing engages audience and the impact of modern web design ideas. * Demonstrate web design principles ang best practices in UI/UX | | | | | | | | | *a,b,c* | 1. Demonstrate skill in creating responsive and interactive websites.  * Familiarize with JavaScript concepts such as variables, arrays, conditionals, and loops and create computational formulas which utilizes logical operations and mathematical expressions to solve practical web design problems. * Design and implement interactive responses on web pages. | | | | | *b,c,d* | |
| 1. Demonstrate skill in web designing and create websites that complies with the latest World Wide Web Consortium (W3C) standards in coding, designing and implementation.  * Articulate principles of creating an effective web page, including an in-depth consideration of information architecture and how it affects the over-all design and impact. * Familiarize with graphic design principles that relate to web design and implement theories into practice. * Demonstrate proper web designing layouts, web images representations, text formatting and elements positioning. | | | | | | | | | *a,b,c* | 1. Publish web pages, directories, and asset content to a remote server using Github/Gitpages.  * Familiarize with web hosting services and domain name acquisition. * Demonstrate skill in updating and managing live website. | | | | | *f,g,h,i,j* | |
| 1. Demonstrate skill in creating modern responsive web design and creativeness in writing efficient cascades.  * Learn techniques in responsive web design, including media queries and Flexbox. * Evaluate web design problem, and recommend designing solutions that enable websites to adapt in various devices and screen sizes | | | | | | | | | *d,e,f* |  | | | | |  | |

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| **CILO No.** | **Essential Content** | **Time Allotment** | **Teaching – Learning Activities** | | | **Outcomes-Based Assessment** | **Educational Resources** |
| **Flexible / Distance / Remote** | | **Residential or Face to Face (F2F**) |
| ***Synchronous*** | ***Asynchronous*** |
|  | **Preliminaries** (VMGO, School Goals, Quality Policy, MSC Graduate Attributes) | *30 mins* | The teacher will meet with the students and hold a live chat to further discuss and answer questions about the class orientation.  During consultation hours, the student will send questions. | The teacher will use Google Classroom to distribute links and materials for the class orientation.  The student will read the VMGO, School Goals, Quality Policy, MSC Graduate Attributes, as well as the class policies, subject requirements, and rating system. | *-Sharing of thoughts with regards to VGMO and GAD* |  | *Student Handbook and Faculty Manual* |
| **Unit 1: Introduction to Web Design** | | | | | | | |
| **CILO 1** | *Concepts of UX/UI*   * *Design Principles* * *Design Techniques* * *Web Design Tools* * *Web Design Trends and Techniques* | 5 Hours | ***Instructor will:***   * *meet the students via Google Meet and hold a live chat to further discuss and answer students' questions about the topic posted in Google Classroom.*   ***Students will:***   * *Join the Google Meet Session* * *Participate on channel discussions* | ***Instructor will:***   * *Upload resources and session handout for the Concepts of UX/UI on Google Classroom* * *Assign Individual Task to Students: UX Case Study*   ***Students will:***   * *Download the topic materials from google classroom* * *Complete the given task within the given timeframe and submit for evaluation* | ***Instructor will:***  *The teacher will engage the students in the new lesson by simulating the design approaches for different projects* | ***Individual Output:***  *UX Case Study* | *INTERACTION DESIGN beyond human-computer interaction by Helen Sharp | Yvonne Rogers | Jennifer Preece. 2019* |
| **CILO 2,3** | ***Fundamentals of HTML & CSS Refresher***   * *Html Elements* * *Webpage Structure* * *Syntax and terminology* * *Basics of colors, units, typography* * *Syntax and terminology* * *Basics of colors, units, typography* | 5 Hours | ***Instructor will:***   * *meet the students via Google Meet and hold a live chat to further discuss and answer students' questions about the topic posted in Google Classroom.*   ***Students will:***   * *Join the Google Meet Session* * *Participate on channel discussions* | ***Instructor will:***   * *Upload resources and session handout for the HTML & CSS Refresher on Google Classroom* * *Assign Individual Task to Students*   ***Students will:***   * *Download the topic materials from google classroom* * *Complete the given task within the given timeframe and submit for evaluation* | ***Instructor will:***  *The teacher will engage the students in the new lesson by simulating the design approaches for different projects* | ***Individual Output:***  *Development of a Website Structure* | *Learn Enough HTML, CSS and Layout to be Dangerous | Lee Donahoe and Michael Hartl. 2022*  [*Web Development & Design Foundations with HTML5*](http://192.168.1.100/cgi-bin/koha/opac-detail.pl?biblionumber=19128&query_desc=kw%2Cwrdl%3A%20Web%20Development)*|* [*Terry Ann Felke-Morris, Ed.D.*](http://192.168.1.100/cgi-bin/koha/opac-search.pl?q=au:Terry%20Ann%20Felke-Morris,%20Ed.D.) *2021* |
| **CILO 2,3** | ***CSS Layouts***   * *Flexbox* * *Responsive and Functional CSS* * *Typography and Images* * *CSS Grid* * *Animation and Interaction* | 10 Hours | ***Instructor will:***   * *meet the students via Google Meet and hold a live chat to further discuss and answer students' questions about the topic posted in Google Classroom.*   ***Students will:***   * *Join the Google Meet Session* * *Participate on channel discussions* | ***Instructor will:***   * *Upload resources and session handout for the CSS Layouts on Google Classroom* * *Assign Individual Task to Students*   ***Students will:***   * *Download the topic materials from google classroom* * *Complete the given task within the given timeframe and submit for evaluation* | ***Instructor will:***  *The teacher will engage the students in the new lesson by simulating the design approaches for different projects* | ***Individual Output:*** *Styling and Layout using CSS* | *Learn Enough HTML, CSS and Layout to be Dangerous | Lee Donahoe and Michael Hartl. 2022*  [*Web Development & Design Foundations with HTML5*](http://192.168.1.100/cgi-bin/koha/opac-detail.pl?biblionumber=19128&query_desc=kw%2Cwrdl%3A%20Web%20Development)*|* [*Terry Ann Felke-Morris, Ed.D.*](http://192.168.1.100/cgi-bin/koha/opac-search.pl?q=au:Terry%20Ann%20Felke-Morris,%20Ed.D.) *2021* |
| **CILO 2,3** | ***CSS For Aesthetics***   * *Aesthetics with gradients, box-shadows, clipping, and filters* * *Optimizing the usability around scrolling / focus* * *The details and polish to build next-level user experiences* | 5 Hours | ***Instructor will:***   * *meet the students via Google Meet and hold a live chat to further discuss and answer students' questions about the topic posted in Google Classroom.*   ***Students will:***   * *Join the Google Meet Session* * *Participate on channel discussions* | ***Instructor will:***   * *Upload resources and session handout for the CSS for Aethics on Google Classroom* * *Assign Individual Task to Students: Landing Page Redesign*   ***Students will:***   * *Download the topic materials from google classroom* * *Complete the given task within the given timeframe and submit for evaluation* | ***Instructor will:***  *The teacher will engage the students in the new lesson by simulating the design approaches for different projects* | ***Individual Output:*** *Implementing CSS styling Techniques* | *Learn Enough HTML, CSS and Layout to be Dangerous | Lee Donahoe and Michael Hartl. 2022*  [*Web Development & Design Foundations with HTML5*](http://192.168.1.100/cgi-bin/koha/opac-detail.pl?biblionumber=19128&query_desc=kw%2Cwrdl%3A%20Web%20Development)*|* [*Terry Ann Felke-Morris, Ed.D.*](http://192.168.1.100/cgi-bin/koha/opac-search.pl?q=au:Terry%20Ann%20Felke-Morris,%20Ed.D.) *2021* |
| **CILO**  **2,3** | ***CSS Frameworks (Bootstrap, Tailwind)***   * *Typography & Utilities* * *CSS Components* * *Grid & Flexbox* * *Widgets* | 10 Hours | ***Instructor will:***   * *meet the students via Google Meet and hold a live chat to further discuss and answer students' questions about the topic posted in Google Classroom.*   ***Students will:***   * *Join the Google Meet Session* * *Participate on channel discussions* | ***Instructor will:***   * *Upload resources and session handout for CSS Frameworks on Google Classroom* * *Assign Individual Task*   ***Students will:***   * *Download the topic materials from google classroom* * *Complete the given task within the given timeframe and submit for evaluation* | ***Instructor will:*** *engage the students in the new lesson by live coding session demonstrating the usage of CSS Frameworks with Brainstorming activities exploring the various frameworks and their usage*  ***Students will:***  *Perform an individual hands-on assessment activity* | ***Laboratory Activity:*** *Development of Product Landing Page utilizing CSS Framework* | *Learn Enough HTML, CSS and Layout to be Dangerous | Lee Donahoe and Michael Hartl. 2022*  [*Web Development & Design Foundations with HTML5*](http://192.168.1.100/cgi-bin/koha/opac-detail.pl?biblionumber=19128&query_desc=kw%2Cwrdl%3A%20Web%20Development)*|* [*Terry Ann Felke-Morris, Ed.D.*](http://192.168.1.100/cgi-bin/koha/opac-search.pl?q=au:Terry%20Ann%20Felke-Morris,%20Ed.D.) *2021* |
| **MIDTERM EXAM** | | | | | | | |
| **CILO 4** | ***Modern JavaScript***   * *Control Flow* * *Objects and Built in Functions* * *Arrays and Methods* * *Functions and Methods* * *Document Object Model* | 10 Hours | ***Instructor will:***   * *meet the students via Google Meet and hold a live chat to further discuss and answer students' questions about the topic posted in Google Classroom.*   ***Students will:***   * *Join the Google Meet Session* * *Participate on channel discussions* | ***Instructor will:***   * *Upload resources and session handout for Modern JavaScript on Google Classroom* * *Assign Individual Task*   ***Students will:***   * *Download the topic materials from google classroom* * *Complete the given task within the given timeframe and submit for evaluation* | ***Instructor will:*** *engage the students in the new lesson by live coding session demonstrating best practices and various coding styles using JavaScript for Web Development*  ***Students will:***  *Perform an individual hands-on assessment activity.* | ***Laboratory Activity:*** *Advance JavaScript*  ***Individual Performance Activity:*** *Dynamic Webpage Development using JavaScript and DOM* | *Learn Enough HTML, CSS and Layout to be Dangerous | Lee Donahoe and Michael Hartl. 2022*  *JavaScript for Modern Web Development | Alok Ranjan:Abhilasha Sinha :Ranjit Battewad.2020* |
| **CILO 4** | ***Object Oriented JavaScript***   * *The principles of OOP* * *Design Patterns* * *Classes and objects in JavaScript* * *Creating and manipulating objects* * *Polymorphism and dynamic dispatch* | 10 Hours | ***Instructor will:***   * *meet the students via Google Meet and hold a live chat to further discuss and answer students' questions about the topic posted in Google Classroom.*   ***Students will:***   * *Join the Google Meet Session* * *Participate on channel discussions* | ***Instructor will:***   * *Upload resources and session handout for Object Oriented JavaScript on Google Classroom* * *Assign Individual Task*   ***Students will:***   * *Download the topic materials from google classroom* * *Complete the given task within the given timeframe and submit for evaluation* | ***Instructor will:*** *engage the students in the new lesson by live coding session demonstrating best practices and various coding styles using JavaScript for Web Development*  ***Students will:***  *Perform an individual hands-on assessment activity.* | ***Laboratory Activity:*** *Implementation of OOP Design Patterns*  ***Individual Performance Activity:*** *OOP Coding Challenge* | *Learn Enough HTML, CSS and Layout to be Dangerous | Lee Donahoe and Michael Hartl. 2022*  *JavaScript for Modern Web Development | Alok Ranjan:Abhilasha Sinha :Ranjit Battewad.2020* |
| **CILO 4** | ***Asynchronous Code***   * *Callbacks* * *Promises* * *Async / Await*   ***Advanced DOM***   * *Fetch* * *Event Loop* * *Browser Storage* | 5 Hours | ***Instructor will:***   * *meet the students via Google Meet and hold a live chat to further discuss and answer students' questions about the topic posted in Google Classroom.*   ***Students will:***   * *Join the Google Meet Session* * *Participate on channel discussions* | ***Instructor will:***   * *Upload resources and session handout for Object Oriented JavaScript on Google Classroom* * *Assign Individual Task*   ***Students will:***   * *Download the topic materials from google classroom* * *Complete the given task within the given timeframe and submit for evaluation* | ***Instructor will:*** *engage the students in the new lesson by live coding session demonstrating best practices and various coding styles using JavaScript for Web Development*  ***Students will:***  *Perform an individual hands-on assessment activity.* | ***Laboratory Activity:***  *Consuming API data in the frontend*  ***Individual Performance Activity:*** *Development of a Dynamic webpage with API Integration* | *Learn Enough HTML, CSS and Layout to be Dangerous | Lee Donahoe and Michael Hartl. 2022*  *JavaScript for Modern Web Development | Alok Ranjan:Abhilasha Sinha :Ranjit Battewad.2020* |
| **CILO 4** | ***Fundamentals of Typescript***   * *Built in Types* * *Arrays* * *Tuples* * *Enums* * *Functions* * *Objects*   ***Advanced Types***   * *Type Aliases* * *Union* * *Intersection* * *Literal* * *Nullable* * *Optional Chaining* * *Nullish Operator* * *Assertions* * *Unknown and Never* | 10 Hours | ***Instructor will:***   * *meet the students via Google Meet and hold a live chat to further discuss and answer students' questions about the topic posted in Google Classroom.*   ***Students will:***   * *Join the Google Meet Session* * *Participate on channel discussions* | ***Instructor will:***   * *Upload resources and session handout for Object Oriented JavaScript on Google Classroom* * *Assign Individual Task*   ***Students will:***   * *Download the topic materials from google classroom* * *Complete the given task within the given timeframe and submit for evaluation* | ***Instructor will:*** *engage the students in the new lesson by live coding session demonstrating best practices and various coding styles using JavaScript for Web Development*  ***Students will:***  *Perform an individual hands-on assessment activity.* | ***Laboratory Activity:***  *Migration of JavaScript Code to TypeScript*  ***Individual Performance Activity:*** *Bug Bounty Hunting on TypeScript* | *Learn Enough HTML, CSS and Layout to be Dangerous | Lee Donahoe and Michael Hartl. 2022*  *JavaScript for Modern Web Development | Alok Ranjan:Abhilasha Sinha :Ranjit Battewad.2020* |
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| **FINALTERM EXAM** | | | | | | | |
| **Assessment System and Performance Standards**   * *At the end of the semester the student should obtain a grade of 3.0 in order to pass the course.* | | | | **Performance Criteria:**   * Quiz – 10% * Project – 20% * Activities & Performance - 30% * Major Exam - 40% | | | |
| **Institutional Policies:**   * *Policies and guidelines (specifically on attendance, absences, and student discipline) provided in the Student Handbook, as amended, and approved by the MSC – Board shall be implemented.* * *Health Guidelines for AY 2020-2021 set by the MSC Health Services Unit will be implemented and strictly followed in the event of face-to-face learning specifically:*   + *Continuous implementation of NO MASK, NO ENTRY policy in classrooms.*   + *It is recommended that any person not in good health condition should refrain from going to school or attending face to face classes.*   + *Continuous compliance to minimum public health standard such as:*     - * *Wearing of facemask and face shields*       * *1.5 meter – 2-meter social distancing*       * *Regular hand washing*       * *Regular disinfection and sanitation measures.* * *Deployment of available flexible learning and alternative modes of delivery will be exercised as per CHED Advisory No. 6-7. Thus, the students shall communicate with the teacher for their available resources and platforms in order to set appropriate learning arrangement for each individual.* | | | | **Class Policies:**   * *Student who was found cheating during examinations and/or quizzes will get an equivalent grade of 5.0 for that quiz/examination.* * *This course makes extensive use of electronic information from a host of sources. Students are expected to provide a citation for any work that is not original to the student (i.e., is someone else's idea or words).* * *Cellphones or any electronic device during class time is prohibited, except with permission of the instructor for emergency situation and for reasons directly related to class activity.* * *A student who has been absent may be excused upon presentation of a medical certificate to the instructors concerned for re – admission to his/her classes but not later than the first day of class after the student returned.* * *This course makes extensive use of electronic information from a host of sources. Students are expected to provide a citation for any work that is not original to the student (i.e., is someone else's idea or words).* | | | |
| **References:**   * *Learn Enough HTML, CSS and Layout to be Dangerous | Lee Donahoe and Michael Hartl. 2022* * [*Web Development & Design Foundations with HTML5*](http://192.168.1.100/cgi-bin/koha/opac-detail.pl?biblionumber=19128&query_desc=kw%2Cwrdl%3A%20Web%20Development)*|* [*Terry Ann Felke-Morris, Ed.D.*](http://192.168.1.100/cgi-bin/koha/opac-search.pl?q=au:Terry%20Ann%20Felke-Morris,%20Ed.D.) *2021* * *JavaScript for Modern Web Development | Alok Ranjan:Abhilasha Sinha :Ranjit Battewad.2020* * *COMPUTER PROGRAMING JavaScript, Python, HTML, SQL, CSS by William Alvin Newton | Steven Webber. 2019* * *INTERACTION DESIGN beyond human-computer interaction by Helen Sharp | Yvonne Rogers | Jennifer Preece. 2019* | | | | **Suggested Links and Readings:**   * *Beginning Responsive Web Design with HTML5 and CSS3* * *Responsive Web Design with HTML5 and CSS | Ben Farin. 2020* * *The Modern JavaScript Bootcamp | Andrew Mead. 2019* * *The Complete Node.js Dev Course| Andrew Mead. 2019* * *Web Design Trends 2018 | UXPin. 2018.* * *Beginning jQuery From the Basics of jQuery to Writing your Own Plug-ins | Jack Franklin Russ Ferguson. 2017* * *Git Essentials | Ferdinando Santacroce. 2017.* * *Bootstrap 4 cookbook | Snigdhendu Bikas. 2016.* * *Jump Start Sass: Get Up to Speed with Sass in a Weekend | Miriam Suzanne 2016*. * *Web Development for beginners: Learn HTML CSS JavaScript step by step with this Coding Guide, Programming Guide for beginners* * *Learn to Code HTML and CSS: Develop and Style Websites|Shay Howe. 2014* * *HTML & CSS3. |John Duckett. 2013* * *JavaScript and JQuery: Interactive Front-End Web Development. |John Duckett.* * *2013* * *Web Design. |Jemma Development Group. 2013.* * *HTML,CSS, XHTML |Jemma Development Group. 2013* * *Responsive Web Design with HTML5 and CSS3 | Ben Frain. 2012.* * *HTML and CSS: Design and Build Websites |John Duckett. 2011.* * *www.w3schools.com* * *www.tutorialspoint.com* * *www.99designs.com/blog/trends/web-design-trends* * [*www.designmodo.com/web-design-trends-2020*](http://www.designmodo.com/web-design-trends-2020) * [*www.udemy.com*](http://www.udemy.com) * <https://developer.mozilla.org/en-US/docs/Learn> * <https://devdocs.io/> * <https://tympanus.net/codrops/css_reference/> * <https://www.freecodecamp.org/news/> | | | |

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