# INDIANA TECH

Course Syllabus Cover Page – Spring 2021

**Course Number:** IS 2900
**Course Title:** Web Development II
**Course Description:**

Continuation of IS 2100.  This second course in web development incorporates server-side scripting and relational databases into webpages previously designed in IS 2100.  Students will create applications that generate dynamic web pages and store user data.  The MVC pattern, data objects, exception handling and input validation are also covered.  Weekly scheduled laboratory and unscheduled laboratory.  3 credits. (3 plus 0)

**Prerequisites:** IS 2100; CS 2500.

**Credit hours:** 3

**Learning Outcomes:**

Upon the successful completion of this course, students will be able to:

1. Describe how to build and maintain websites that use PHP and MySQL.
2. Code PHP scripts that include form data, control statements, arrays, functions and objects.
3. Transfer files onto an apache server and view the executed results over the internet.
4. Design a MySQL database that works with PHP Data Objects.
5. Use the MVC pattern to organize application code.
6. Create a secure e-Commerce web site.
7. Trace the execution of an application and test for syntax,
runtime and logic errors.

01/05/2021

**INDIANA**TECH

*College of Professional Studies*

**IS 2900 Web Development II**

**Online Syllabus Course Content**

**Instructor Information**
Please see Professor Profile at the Blackboard instructional site.

**Course Schedule**
Please see Course Schedule in the Course Syllabus area of the Blackboard instructional site.

**Online Course Policies**
All of the online courses taken by students are required to follow the policies posted online at http://online.indianatech.edu/tech-policies/policies/. Please review the posted policies carefully. If you are unable to abide by the policies listed, please contact the Warrior Information Network (WIN) at 888.832.4742 and request to withdraw from this course.

**Textbook**
All material is open-source or found on the Internet. However, if you need a refresher or a source to learn more about PHP and MySQL, the following textbook is a good source. Again, this textbook is optional, not required: Murach, J., & Harris, R. (2010). *Murach's PHP and MySQL: Training & reference*. Fresno, CA: Mike Murach & Associates.

**Grading Events & Grading Criteria**
***Unless otherwise specified, all assignments must be submitted via Blackboard***

**Grading Events:**

| | |
|---|---|
| Course Preparation Quiz | 15 pts |
| Set-up Development Environment (week 1) | 50 pts |
| Software Experience Discussion (week 1) | 20 pts |
| Tutorial Authentication (week 1) | 25 pts |
| Expand on Module 1 Tutorial (week 2) | 25 pts |
| MVC Discussion (week 2) | 20 pts |
| Fat Models – Skinny Controllers Discussion (week 2) | 20 pts |
| Final Project – Define Requirements (week 3) | 50 pts |
| Eloquent Discussion (week 3) | 20 pts |
| Final Project Database (week 4) | 80 pts |

| Databases and MySQL Discussion (week 4) | 20 pts |
|---|---|
| Final Project (week 6) | 200 pts |
| Final Project Experience Discussion (week 6) | 20 pts |
| **Total Points** | **565 pts** |

## Proficiencies for success

Students should be familiar with basic programming concepts and standard web development languages such as HTML, CSS, and JavaScript. Students will gain hands on experience by designing a web application in PHP using Model View Controller (MVC) design pattern.

IS2900 will introduce students to:

- Model View Controller design pattern
- Working with PHP Frameworks to reduce coding and increase development speed
- Creating MySQL databases
- Developing database driven web applications using MySQL.
- Deploying web applications from development environments to production via FTP.

Students will be provided instructions on how to download and install the required software during the first week of class.

## Final project requirements

Develop a web application of your choice that meets or exceed the following requirements:
1. The web application must be written in MVC pattern utilizing Laravel.
2. The web application must be fully functional according to your defined instructor approved project requirements from Module 3.
3. Each student must define at least 5 application requirements.
4. Each student must include the following requirements in addition to their defined requirements:
    1. Your application must utilize MVC design pattern. You'll be graded based off how well you separate your logic from your models and views.
    2. You must have at least 5 views, 3 controllers, and 4 models. (Excluding built in Laravel models, views, and controllers.)
    3. Your application must perform at least 5 select, 5 update, 2 delete, and 10 insert from your M4 database assignment.
    4. You must use 3 or more built in PHP functions: http://php.net/manual/en/funcref.php
    5. You must create 3 or more custom functions.
    6. Your application must build at least (1) PHP array, pass it via HTTP, and final store the results. Hint: Laravel makes this easy.

## Grading Scale
The following grading scale will be used to assign a grade at the end of the course:

| Percentage Achieved | Grade | Percentage Achieved | Grade | Percentage Achieved | Grade |
|---|---|---|---|---|---|
| 93% or above | A | 80% or above | B- | 70% or above | C- |
| 90% or above | A- | 77% or above | C+ | 60% or above | D |
| 87% or above | B+ | 73% or above | C | Below 60% | F |
| 83% or above | B | | | | |

## Late Assignments
All assignments and required online activities are due according to the deadline listed in the course schedule. Granting deadline extension is the course instructor's autonomy.

## Incompletes
If you are unable to complete the requirements for this course due to extenuating circumstances, an Incomplete grade (I) may be granted if you meet the general guidelines stated below.

General Guidelines for submitting a course incomplete request:
- More than 50% of the course session has elapsed.
- The student has encountered an unexpected situation that is beyond his or her control.
- The student is
  - in good academic standing – up to date on all of the course assignments and has at least an overall passing grade,
  - able to complete all of the remaining coursework within a session (5 weeks for an undergraduate course and 6 weeks for a graduate course) that immediately follows the session the student is currently enrolled, and
  - able to provide support documentations to substantiate the need for extra time should a session is not enough to complete the course requirements.

If an Incomplete is granted, the instructor will set a deadline for all work to be completed. **The deadline cannot go past one (1) session.** All incomplete grades and deadlines are subject to approval by the designated university authority.

## Course Related Communication
Online courses are conducted in an accelerated format. Timely communication is very important. When receiving emails from your classmates or instructor, please respond as soon as you can.

Students are REQUIRED to use their Indiana Tech email account for all course related communication. The most direct, and effective, way to email your course instructor, and classmates, is by using the Send Email function from the Blackboard course site. When you use the Send Email function, you automatically receive a carbon copy of the email you sent. In the event when you need to substantiate your claim that you did email your classmates or instructor, you can show that carbon copy to the person(s) who requested it.

Please note that Blackboard only permits you to send email, it does not provide you with the check email function. All of the emails your classmates and instructor sent to you will be delivered to your Indiana Tech email account. You are strongly encouraged to check your Indiana Tech email account regularly, preferably several times a week, to minimize the likelihood of miscommunication.

The University policy requires each online course instructor to respond to a student's email within 24 hours. Unless there is an extraneous situation that prevents the instructor from following this rule, you can expect to hear from the instructor within 24 hours. If you don't receive a reply within 24 hours, please do not hesitate to follow up with another email or forward the carbon copy of the email you sent to OnlineSupport@IndianaTech.edu with a note "Please help. It's been 24 hours and I have not heard from my instructor" and the University support staff will act on your behalf to contact your course instructor.