Bachelor of Technical-Vocational Teacher Education
MAJOR IN COMPUTER PROGRAMMING:
WEB DEVELOPMENT 1

COURSE MODULE	COURSE UNIT	WEEK
1	10	13
Django (Fundamentals)		

CHECKLIST

- ✓ Read course and unit objectives
- ✓ Read study guide prior to class attendance
- ✓ Read required learning resources; refer to unit terminologies for jargons
- ✓ Proactively participate in classroom discussions
- ✓ Participate in weekly discussion
- ✓ Answer and submit course unit tasks

UNIT EXPECTED OUTCOMES (UEOs)

At the end of this unit, the students are expected to:

Cognitive:
1. Classify Django fundamentals.
2. Categorize Django fundamentals.
3. Generate a Django model using Django fundamentals.

Affective:
1. Listen attentively during class discussions
2. Demonstrate tact and respect when challenging other people's opinions and ideas
3. Accept comments and reactions of classmates on one's opinions openly and graciously.

Psychomotor:
1. Participate actively during class discussions and group activities
2. Express opinion and thoughts in front of the class

REQUIRED READINGS

Django Tutorial. (2022). https://data-flair.training/blogs/django-tutorial/

STUDY GUIDE

Django
- ➢ high-level Python web application framework
- ➢ backend framework used to resolve problems of connectivity with databases, other server problems, SEO solutions
- ➢ Django is a registered trademark of the Django Software Foundation, and is licensed under BSD License

History of Django
- ➢ 2003 − Started by Adrian Holovaty and Simon Willison as an internal project at the Lawrence Journal-World newspaper.
- ➢ 2005 − Released July 2005 and named it Django, after the jazz guitarist Django Reinhardt.
- ➢ 2008 - Django has continued to grow and improve, from its first milestone release (1.0) in September
- ➢ 2022 – will be release version 4.0

Django – Design Philosophies
- ➢ Loosely Coupled
- ➢ Less Coding
- ➢ Don't Repeat Yourself (DRY)
- ➢ Fast Development
- ➢ Clean Design

Features of Django
- ➢ Excellent Documentation
- ➢ SEO Optimized
- ➢ Versatile in Nature
- ➢ Thoroughly Tested
- ➢ Python Web-framework
- ➢ High Scalability
- ➢ High Security
- ➢ Rapid Development

Advantages of Django

- Implemented in Python
- Better CDN Connectivity & Content Management
- Batteries included framework
- Fast Processing
- Rapid Development
- Scalable
- Secured
- Object-Relational Mapping (ORM) Support
- Multilingual Support
- Framework Support
- Administration GUI
- Development Environment

Disadvantages of Django

- Monolithic
- Not for Smaller Projects
- Regular Expression for URLs

Django Fundamentals

- Django Architecture
- Django MTV Architecture
- Django Project Layout and File Structure
- Django Models
- Django Views
- Django Templates
- Django URLs and URL Conf

TERMINOLOGIES

BROWSER - a computer program with a graphical user interface for displaying and navigating between web pages.

CLIENT - a program, person or things that are capable of obtaining services provided by another program.

CODING - sometimes called computer programming, is how we communicate with computers.

DOMAIN NAME - refers to your website address. This is what users type in a browser's search bar to directly access your website.

FRAMEWORK - a layered structure indicating what kind of programs can or should be built and how they would interrelate.

FRONT-END - refers to the user interface / client-side, everything with which the user interacts.

HYPERTEXT - a word, phrase or chunk of text that can be linked to another document or text.

HYPERTEXT TRANSFER PROTOCOL (HTTP) - The communications protocol used to connect to Web servers on the Internet or on a local network (intranet).

INTERNET PROTOCOL - a set of rules governing the format of data sent over the internet or other network.

IP ADDRESS (INTERNET PROTOCOL ADDRESS) - a series of numbers that identifies any device on a network.

SEARCH ENGINE - a program that searches for and identifies items in a database that correspond to keywords or characters specified by the user, used especially for finding particular sites on the World Wide Web.

SERVER - a computer or system that provides resources, data, services, or programs to other computers, known as clients, over a network.

WEB PAGES - a hypertext document on the World Wide Web.

WEBSITE - a set of related web pages located under a single domain name, typically produced by a single person or organization.

WIREFRAME - a simplified visual guide that represents the skeletal framework of a website.

WORLD WIDE WEB - an information system on the internet which allows documents to be connected to other documents by hypertext links, enabling the user to search for information by moving from one document to another.

FURTHER READINGS

Django Tutorial. (2022). https://data-flair.training/blogs/django-tutorial/

UNIT TASK

- Proactively participate in classroom discussions
- Answer and submit course unit tasks

REFERENCES

Django Tutorial. (2022). https://data-flair.training/blogs/django-tutorial/

Django Tutorial. (2020). https://www.geeksforgeeks.org/django-tutorial/

Django Tutorial. (2022). https://developer.mozilla.org/en-US/docs/Learn/Server-side/Django/Introduction

Django Tutorial. (n.d.). https://www.tutorialspoint.com/django/index.htm

Django Tutorial. (n.d.). https://www.w3schools.com/django/index.php

Getting started with Django. (n.d.). https://www.djangoproject.com/start/