HERIOT WATT UNIVERSITY

INTRODUCTION

F28WP WEB PROGRAMMING

2019-2020

OVERVIEW

- What is this Course about?
- What is the Syllabus
- What are the Learning Outcomes?
- What is the Assessment Criteria?
- What is the Timetable?
- FAQ about Course/Studying
- Questions Discussion

SYLLABUS

- History of web development technologies
- Design patterns (such as REST, Separation of content and presentation, and abstraction of resources)
- Server side programming using an appropriate scripting language
- General architecture of a web server
- Templating systems
- Client side programming topics, including the Document Object Model
- Security relating to web applications
- Deployment, including coping with scale

LEARNING OUTCOMES: SUBJECT MASTERY

- Understanding, Knowledge and Cognitive Skills Scholarship, Enquiry and Research (**Research-Informed Learning**)
- **Broad** knowledge and understanding of the **history** of web programming
- The ability to apply the concepts, patterns and architectures used in web programming to **new problems**
- Detailed technical skills to use a scripting language for both **server side** and **client side** programming
- The ability to make **informed decisions** about appropriate web technologies to use for a particular task

LEARNING OUTCOMES: PERSONAL ABILITIES

- Industrial, Commercial & Professional Practice Autonomy, Accountability & **Working with Others** Communication, Numeracy & ICT
- Practice in working on a development project in a **small group** under the guidance of a tutor
- Practice subject and scope of a development project (PDP)
- Deconstructing a problem and synthesizing a solution
- **Time management**

ASSESSMENT

- **Examination**: (weighting – 50%)
- **Coursework**: (weighting – 50%)

- Re-assessment: Examination: (weighting – 100%)

SCQF Level: 8

Credits: 15

TIMETABLE

See Online link

Labs & Lectures (Dates, Times & Rooms)

COURSE MATERIAL

- GitHub link
- **Interactive** Webslides (RevealJS)
- Revision Material, Quizzes, Lab Exercises

EXAMPLE

COURSEWORK PROJECT

- **Group** (Team Project 3-5)
- Project has to be managed on GitHub
- Effectively manage and work as a team (**evidence** on GitHub)
- Coursework worth 50%
- Important and **challenging** (hence start early)

WHO HAS USED GITHUB BEFORE?

- Why do we use github?
- What has github to do with web programming?
- How do you get started with git hub?
- What could go wrong?

Understanding the GitHub flow

GitHub flow is a lightweight, branch-based workflow that supports teams and projects where deployments are made regularly. This guide explains how and why GitHub flow works.

5 minute read

Hello World

The easiest way to get started with GitHub. In this guide you'll complete a time honored "Hello World" exercise, and learn GitHub es[illegible]

10 minute read

EXAMPLES GUIDES.GITHUB.COM

Experiment and try github this week - `github guide' tutorials/examples.

You'll need to use github for your coursework (manage your team project).

Getting Started with GitHub Pages

GitHub Pages are a great way to showcase some open source projects, host a blog, or even share your résumé. This guide will help get you started on creating your next website.

10 minute read

Git Handbook

Learn about version control—in particular, Git, and how it works with GitHub.

10 minute read

GIT OVERVIEW VIDEO

WEB PROGRAMMING COURSE

You will need to code

Javascript Question - What will the following code output?

```
var a = NaN;
if ( a === a )
{
    alert("a===a");
}
else
{
    alert("a!==a");
}
```

SUMMARY

- Understand What this Course is About?
- How it is Assessed?
- Attendance is Important
- Hands-on Course (Work through Examples/Exercises)

TO DO THIS WEEK ...

- Read over the lectures
- Review the revision questions
- Work through tutorial practicals
- Challenging – so start early
- Experiment (get into good habits)