



University of the East
Manila Campus
College of Engineering
Computer Engineering Department



**NCP3105: Software Design Laboratory
(Web Development)**

1st Semester, Academic Year 2022 - 2023

WEB FRONT-END DESIGN USING BOOTSTRAP

Preliminary Examination

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WEB FRONT-END DESIGN USING BOOTSTRAP

Preliminary Examination

Intended Learning Outcomes

At the completion of this activity, the students will be able to:

- **explore** the different UI components of Bootstrap;
- **use** Bootstrap as front-end platform in developing web pages; and
- **design** a simple website.

Machine Problems

Design a simple web page for the Computer Engineering field. The design shall be implemented using Bootstrap. The web page shall contain the following contents:

- What is Computer Engineering
- Fields of Specialization
- Career Opportunities
- Program Educational Objectives
- Program Outcomes
- Characteristics of BS CpE Graduates
- Student Organization

Students are allowed to go beyond the minimum requirements.

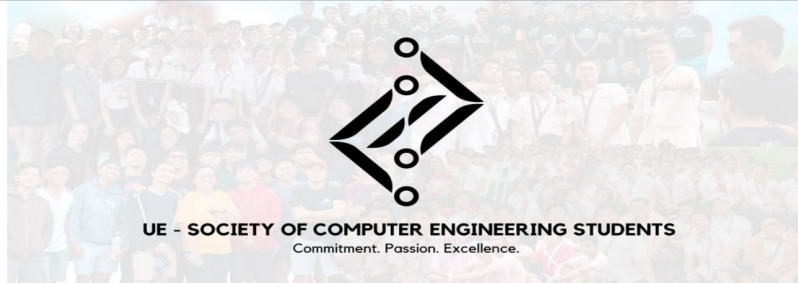
Output



University of the East Manila Campus College of Engineering Computer Engineering Department



What is Computer Engineering? [Careers](#) [Program Educational Objectives/Outcomes](#) [Graduates](#) [Organization](#)



Discover Your Path in Computer Engineering

What is Computer Engineering?

A computer engineer fuses electrical engineering and computer science to develop new technology. Computer engineers design, build, and maintain hardware in modern computers.

These engineers focus on integrating hardware and software in a unified system safely and efficiently. along with personal devices, these engineers have a hand in creating robotics, networks, and other computer-based systems.

— William Capella, 2022



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Fields of Specialization

The following are some of the few examples of popular subdisciplines of Computer Engineering. You can click on them to switch to see the possible careers in each discipline.

1. Data Science & Machine Learning

Data Science and Machine Learning uses scientific methods, processes, algorithms, and systems to extract knowledge and insights from many structural and unstructured data. Data science relates to data mining and big data, and focuses on extracting knowledge from data sets.

Careers

- Business Intelligence (BI) Developer
- Data Architect
- Applications Architect
- Infrastructure Architect
- Enterprise Architect
- Data Scientist
- Data Analyst
- Data Engineer

2. Cyber Security

Cyber-security refers to technological solutions that can prevent cyber threats like attacks, unauthorized access to data, programs, and networks. With increasing cyber threats in the digital world, the need for skilled personnel has also surged in both the public and private sectors who can develop and provide solutions towards the security of our digital assets.

Careers

- Cyber Forensics Solutions architect
- Malware analyst
- Cyber Security architect/administrator
- Information Security Analyst
- Network security analyst

3. Cloud Computing

Cloud computing is the delivery of computing services including servers, storage, databases, networking, software, analytics, and intelligence over the Internet to offer faster innovation, flexible resources, and economies of scale. You typically now only for cloud services you use, helping lower your operating costs, run your infrastructure more



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Cloud computing is the delivery of computing services including servers, storage, databases, networking, software, analytics, and intelligence over the Internet to offer faster innovation, flexible resources, and economies of scale. You typically pay only for cloud services you use, helping lower your operating costs, run your infrastructure more efficiently and scale as your business needs change.

Careers

- Software architect
- Development operations engineer
- Full-stack developer
- Cloud engineer
- Data engineer

4 Blockchain

Blockchain is a Distributed Ledger Technology (DLT) that makes the history of any digital asset unalterable and transparent through the use of decentralization and cryptographic hashing. It helps reduce risk, stamps out fraud and brings transparency in a scalable way for myriad uses.

Careers

- Blockchain Developer
- Ethereum Developer
- Node.js Blockchain Developer
- Hyperledger Developer
- Solidity Developer
- Javascript Developer
- Blockchain Architect
- Blockchain Consultant
- Blockchain Manager
- Full-stack Blockchain Engineer

5 Digital Transformation

Digital Transformation is the change that is happening through the fast adoption of technologies, right from the change in the work culture to dramatic impact on the business goals and improving the lives of people. Businesses adopt digital platforms to get tremendous benefits and accomplish their business objectives.

Careers

- DT Consultant
- Data Architect

What is Computer Engineering? **Careers** Program Educational Objectives/Outcomes Graduates Organization

— Kaur, Manpreet & Sapra, Riya

Program Educational Objectives And Outcomes

1. Ability to apply knowledge of mathematics and science to solve engineering problems.
2. Ability to design and conduct experiments, as well as to analyze and interpret data.
3. Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability, in accordance with standards.
4. Ability to function on multidisciplinary teams.
5. Ability to identify, formulate, and solve engineering problems.
6. Ability to use techniques, skills, and modern engineering tools necessary for engineering practice.
7. Ability to communicate effectively.
8. Understanding of professional and ethical responsibility.
9. Broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
10. Recognition of the need for, and an ability to engage in life-long learning.
11. Knowledge of contemporary issues.
12. Knowledge and understanding of engineering and management principles as a member and leader in a team, to manage projects and in multidisciplinary environments.







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What is Computer Engineering? Careers Program Educational Objectives/Outcomes Graduates Organization

13. Understand at least one specialized field of computer engineering practice

CPE GRADUATES

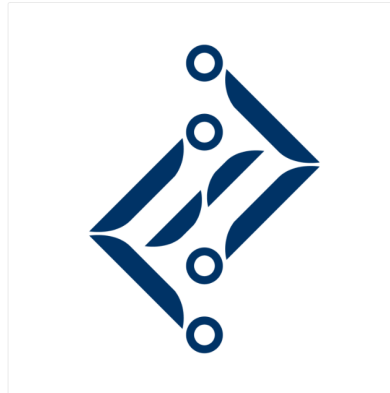
 LAUREEN JOYCE T. OCMANIA B.S. Computer Engineering, Class of 2022 SUMMA CUM LAUDE	 JAMICA R. LACAP B.S. Computer Engineering, Class of 2022 MAGNA CUM LAUDE	 RHYANZ FLOYD D. SEVALIDA B.S. Computer Engineering, Class of 2020 CUM LAUDE	 JONAS S. SALVADOR B.S. Computer Engineering, Class of 2022 MAGNA CUM LAUDE
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What is Computer Engineering? Careers Program Educational Objectives/Outcomes Graduates Organization

Organizations:



COMPUTER ENGINEERING STUDENT SOCIETY
UE-CALOOCAN



SOCIETY OF COMPUTER ENGINEERING STUDENTS
UE-MANILA

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Grading Rubric

See the attached grading rubric.