# Software Engineering Study Plan Tree



**1 - Level**

**1-semester**
- Data Structures and Algorithms
- Database
- Introduction to Web programming
- Object Oriented Programming

**2-semester**
- Introduction to software engineering
- Algorithm design
- Fundamentals of Computer Architecture
- Statistics & probability
- Elective Course
  - Introduction to AI
  - Introduction to Game Mechanics
  - Introduction to IoT

**2 - Level**

**1-semester**
- Computer networks
- Software quality assurance
- Human-computer interaction
- Mobile software development

**2-semester**
- Design software systems
- Operating Systems
- Software Architecture
- Basics of cybersecurity
- Elective Course
  - Game Design
  - Machine learning
  - Introduction to Big Data
  - Deep learning

**3 - Level**

**1-semester**
- Software Project Management
- Software for Sustainable Development
- Digitalization (Business Digital Platforms)
- Elective Course
  - Mobile Apps (Native and Web)
  - Game development
  - Fundamentals of Technological Change
  - Data Mining
  - Enterprise Data Management

**2-semester**
- Internship