

As the Department of Computer Engineering at Ankara Yıldırım Beyazıt University, the changes we have made in the last three years to keep up with rapidly evolving technology and needs are as follows:

- The *CHEM101 General Chemistry* course has been removed from the curriculum and replaced with the *BIO101 Biology for Computer Engineers* course. This course will prepare our students for the increasingly important field of Bioinformatics.
- The *CENG205 Electrical Circuits and Electronic Devices* course has been removed from the curriculum and replaced with the *CENG209 Systems Programming* course.
- The *CENG204 Computer System Architecture* course has been renamed as *CENG204 Computer Organization* and its content has been updated.
- The *CENG307 Signals and Systems* course has been removed from the curriculum and replaced with the *CENG327 Introduction to Scientific Computing* course.
- The names of many courses have been updated:
 - CENG317 Artificial Intelligence -> CENG317 Principles of Artificial Intelligence
 - CENG423 Internet Based Programming -> CENG423 Web Application Development
 - CENG427 Programming of Mobile Devices -> CENG427 Mobile Application Development
 - CENG431 Design Patterns -> CENG431 Software Design Patterns
 - CENG463 Introduction to Machine Learning -> CENG463 Machine Learning
- In the last 5 weeks of the *CENG101 Introduction to Computer Engineering* course, the basics of programming with Python are introduced.
- The *CENG113 Computer Programming I* course is now taught using Java. This course teaches basic programming and algorithmic skills. It is offered every semester.
- The *CENG114 Computer Programming II* course is now taught using Java. In this course, object-oriented programming structures in the Java language are taught, and an introduction to object-oriented programming is provided. It is offered every semester.
- In the *CENG201 Object Oriented Programming* course, object-oriented programming is taught deeply in different programming languages, including C++ and Python.
- In the *CENG209 Systems Programming* course, the C language is taught, and system-level programming is introduced using the C language.
- When our students graduate, they will have with experience in Python, Java, C, C++, SQL and JavaScript. Additionally, other programming languages are also taught at a basic level.
- In the *CENG204 Computer Organization* course, our students see the relationship between computer software and hardware and learn the basics of *Assembly* language.
- In the *CENG327 Introduction to Scientific Computing* course, our students will cover topics such as numerical methods, optimization, and an introduction to digital signal processing (e.g., FFT). These topics will provide the necessary foundation for fields such as Artificial Intelligence, signal and image processing, control systems, simulation, and more.
- Prerequisites have been updated to minimize potential grievances for students. The prerequisite for many courses has been updated to *CENG114 Computer Programming II*.
- In the fourth-year Spring semester, students can take the *ENGR450 Engineering Applications on Site* course instead of three Computer Engineering elective courses, allowing them to work as candidate engineers in companies for three days a week.
- Students can combine their second-year summer internship with their third-year summer internship into a complete one long summer internship at the same company in the third year.
- The structure of the Graduation Project course has been changed to make it more efficient. Graduation project topics are announced to students at the end of the third year. Additionally, students are given the opportunity to exhibit their graduation projects in a fair area where industry representatives will also be present.
- An Artificial Intelligence Minor certificate program has been established, allowing students who meet the criteria to specialize in the field of Artificial Intelligence and document their expertise. In the medium and long term, it is planned to implement other certificate programs such as Cyber Security and Scientific Computing.