

Title <b>(Systemy czasu rzeczywistego)</b>	Code <b>1010331131010330781</b>
Field <b>Control Engineering and Robotics</b>	Year / Semester <b>2 / 3</b>
Specjalty -	Course <b>core</b>
Hours Lectures: <b>2</b> Classes: -    Laboratory: -    Projects / seminars: -	Number of credits <b>6</b>
	Language <b>polish</b>

**Lecturer:**

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**Status of the course in the study program:**

Obligatory course, Faculty of Electrical Engineering, field Control Engineering and Robotics.

**Assumptions and objectives of the course:**

Acquaintance of the basic knowledge about real-time applications and supporting them real-time operating systems

**Contents of the course (course description):**

The matter of real-time applications and programs for critical applications. Requirements for real-time operating systems. The architecture of the real-time operating systems. The systems kernel and its functions. Creation of processes and methods of their scheduling. Real-Time Scheduling Algorithms: RMS, EDF, LLF, MLLF, MUF, MMUF. Interprocess communications. Message-passing system. Process Synchronization. Principles of constructing client-server applications. Basic system management functions. Construction of real-time applications. Examples of real-time operating systems: QNX, ECOS, and WXWorks systems.

**Introductory courses and the required pre-knowledge:**

Basics of computer science, and programming

**Courses form and teaching methods:**

Lectures supported by transparencies, slides, and films. Laboratory exercises.

**Form and terms of complete the course - requirements and assessment methods:**

Written tests and laboratory assessment.

**Basic Bibliography:**

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**Additional Bibliography:**

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