

| <b>STUDY MODULE DESCRIPTION FORM</b>   |   |   |
|--|---|---|
| Name of the module/subject<br><b>Systems for public administrations</b>  |   | Code<br><b>1010332411010337162</b>  |
| Field of study<br><b>Information Engineering</b>   | Profile of study (general academic, practical)<br><b>(brak)</b> | Year /Semester<br><b>1 / 1</b>  |
| Elective path/specialty<br><b>-</b>  | Subject offered in:<br><b>polish</b>                            | Course (compulsory, elective)<br><b>elective</b>  |
| Cycle of study:<br><b>Second-cycle studies</b>   | Form of study (full-time, part-time)<br><b>full-time</b>        |   |
| No. of hours<br>Lecture: <b>2</b> Classes: <b>-</b> Laboratory: <b>2</b> Project/seminars: <b>-</b>  |   | No. of credits<br><b>5</b>  |
| Status of the course in the study program (Basic, major, other)<br><b>(brak)</b>   |   | (university-wide, from another field)<br><b>(brak)</b>  |
| Education areas and fields of science and art<br><b>technical sciences</b>   |   | ECTS distribution (number and %)<br><b>100 5%</b>   |
| <b>Responsible for subject / lecturer:</b><br><br>Prof. dr hab. inż. Czesław Jędrzejek<br>email: czeslaw.jedrzejek@put.poznan.pl<br>tel. 61 665 35 32<br>Elektryczny<br>ul. Piotrowo 3A, 60-965 Poznań   |   |   |
| <b>Prerequisites in terms of knowledge, skills and social competencies:</b>  |   |   |
| <b>1</b>   | <b>Knowledge</b>  | K_W05: Student has comprehensive knowledge with theoretical foundations of IT system modelling and analysis.<br><br>K_W08: has knowledge of advanced programming techniques and methods<br><br>K_K01: potrafi myśleć i działać w sposób kreatywny i przedsiębiorczy |
| <b>2</b>   | <b>Skills</b>   | K_U05: Student is able to model and to analyse IT systems.<br><br>K_U08: Student (in cooperative tasks) is able to formulate specifications for unusual and intricate IT systems.   |
| <b>3</b>   | <b>Social competencies</b>                                      | K_K01: Student is able to think and work in a creative and inventive way.   |
| <b>Assumptions and objectives of the course:</b><br>To familiarize students with the legal system in Poland and the European Union, Polish constitutional principles of public administration? state and local government. System for public administration.<br><br>Laboratories are devoted to practical aspects of data commonly used in public administration. To familiarize students with the techniques and standards for video compression and sound. To familiarize students with the techniques and multimedia standards multimedia. Practical use of encoders and execution of web programming languages |   |   |
| <b>Study outcomes and reference to the educational results for a field of study</b>  |   |   |
| <b>Knowledge:</b>  |   |   |
| 1. has knowledge of advanced programming techniques and methods - [K_W08]  |   |   |
| 2. Student has basic knowledge of special purpose IT systems. - [K_W12]  |   |   |
| <b>Skills:</b>   |   |   |
| 1. Student (in cooperative tasks) is able to design and implement parts of unusual and intricate IT systems. - [K_U09]   |   |   |
| 2. Student is able to evaluate the usefulness of IT tools and technologies for a given IT task. - [K_U10]  |   |   |
| <b>Social competencies:</b>  |   |   |

1. Student understands the necessity of distributing information on computer science advancements and other issues related to computer engineer work. Student tries to distribute the information in a clear way and to present the facts from different points of view. - [K\_K02]

**Assessment methods of study outcomes**

Lecture: The final written test checking the knowledge of public administration systems.

Laboratories: credit classes on the processing of semi-structured and structured data and semantic data.

**Course description**

Lecture:

1. The legal system in Poland and the European Union. Constitutional principle of the Polish public administration: state and local government. System and the law-making institutions in Poland. The legislation setting..

3. Public administration and local government. The division of tasks and responsibilities.

4, Review of administration systems

(central government and local). Workflow systems.

Evidence of population and system of PESEL2. Review of records and ePUAP system.

Other software and requirements.

4. Legal aspects of computerization of public administration. Information Society. The Law on Access to Information and the public. The Law on Personal Data Protection. Impact computerization of administrative procedures.

The law and practice of public procurement. Selected issues related to computerization.

5. Status of computerization of public administration in Poland compared to the leading countries. Problems of implementation e-administration systems.

6. Semantic aspects of the process of law-making and information technology. Metalex Akom Ntoso and Norma metadata systems.

Laboratory:

Methods of storing and processing of data commonly used in public administration. Classes are carried out using the native database

XML data - baseX, relational database server MS SQL 2008 tools Protege 4.1 and Eclipse development platform and Visual Studio. The issue of storage of structured data (XML), the implementation of queries (XPath, XQuery), access to data from an application written in Java, as well as technologies

Web services (REST). The issues related to the semantic description of the data used method of semantic description of documents (OWL, SWRL), and data queries to explicitly defined semantics (SPARQL). In addition, questions have been raised on the integrity and reliability of the data using an electronic signature mechanism for XML documents.

**Basic bibliography:**

1. PAŃSTWO 2.0, NOWY START DLA E-ADMINISTRACJI WARSZAWA, KWIECIEŃ

2. Raport: E-PODLASKIE ? KIERUNKI ROZWOJU SPOŁECZEŃSTWA INFORMACYJNEGO WOJEWÓDZTWA PODLASKIEGO RAPORT KOŃCOWY BIAŁYSTOK, 28 marca 2011 r.

3. Materiały: L edycja seminarium w cyklu INFORMATYKA W ADMINISTRACJI - ELEKTRONICZNE TWORZENIE I OGŁASZANIE AKTÓW PRAWA MIEJSCOWEGO 30 sierpnia 2011 r. | Warszawa

**Additional bibliography:**

1. Materiały Konferencji ?Miasta w Internecie <http://16.kmwi.pl/> , <http://www.15>

**Result of average student's workload**

| Activity                                  | Time (working hours) |
|---|----------------------|
| 1. Lectures                               | 30                   |
| 2. Laboratories                           | 30                   |
| 3. Preparation to laboratories            | 30                   |
| 4. Preparation of laboratory reports      | 15                   |
| 5. Independent work on the lecture topics | 20                   |

**Student's workload**

| <b>Source of workload</b> | <b>hours</b> | <b>ECTS</b> |
|---------------------------|--------------|-------------|
| Total workload            | 125          | 5           |
| Contact hours             | 60           | 2           |
| Practical activities      | 75           | 3           |