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## Subject card

| Subject name and code                          | Legal and Ethical Aspects of Biomedical Engineering, PG_00047807   |  |   |   |        |   |         |          |  |
|--|--|--|---|---|--------|---|---------|----------|--|
| Field of study                                 | Biomedical Engineering   |  |   |   |        |   |         |          |  |
| Date of commencement of studies                | October 2023   |  | Academic year of realisation of subject   |   |        | 2023/2024   |         |          |  |
| Education level                                | first-cycle studies  |  | Subject group   |   |        | Obligatory subject group in the field of study<br>Humanistic-social subject group |         |          |  |
| Mode of study                                  | Full-time studies  |  | Mode of delivery  |   |        | at the university   |         |          |  |
| Year of study                                  | 1  |  | Language of instruction   |   |        | Polish  |         |          |  |
| Semester of study                              | 1  |  | ECTS credits  |   |        | 1.0   |         |          |  |
| Learning profile                               | general academic profile   |  | Assessment form   |   |        | assessment  |         |          |  |
| Conducting unit                                | Department of Biome  | Department of Biomedical Engineering -> Faculty of Electronics, Telecommunications and Informatics |   |   |        |   |         | ormatics |  |
| Name and surname                               | Subject supervisor   |  | dr hab. inż. Mariusz Kaczmarek  |   |        |   |         |          |  |
| of lecturer (lecturers)                        | Teachers   |  | dr hab. inż. Mariusz Kaczmarek  |   |        |   |         |          |  |
| Lesson types and methods of instruction        | Lesson type  | Lecture  | Tutorial  | Laboratory                                    | Projec | t   | Seminar | SUM      |  |
|  | Number of study hours  | 15.0   | 0.0   | 0.0   | 0.0    |   | 0.0     | 15       |  |
|  | E-learning hours included: 0.0   |  |   |   |        |   |         |          |  |
| Learning activity<br>and number of study hours | Learning activity  | Participation in<br>classes includ<br>plan   |   | Participation in<br>consultation hours<br>1.0 |        | Self-study  |         | SUM      |  |
|  | Number of study hours  | 15   |   |   |        | 9.0 25  |         | 25       |  |
| Subject objectives                             | Introduction to ethical problems in medicine and in medical engineering; also to certification of medical products and instruments as well as with intellectual rights protection.   |  |   |   |        |   |         |          |  |
| Learning outcomes                              | Course outcome   |  | Subject outcome   |   |        | Method of verification  |         |          |  |
|  | [K6_K03] is ready to meet social<br>obligations, co-organise activities<br>for the social environment, initiate<br>actions for the public interest,<br>think and act in an entrepreneurial<br>way  |  | It is ready to act in the public<br>interest and to act in an<br>entrepreneurial manner in the field<br>of biomedical technologies. |   |        | [SK3] Assessment of ability to organize work                                      |         |          |  |
|  | [K6_W08] Knows and<br>understands the fundamental<br>dilemmas of modern civilisation<br>and basic economic, legal and<br>other conditions of various types<br>of activities related to the field of<br>study, including the basic<br>concepts and principles in the field<br>of industrial property and copyright<br>protection.   |  | He knows the legal and ethical aspects of biomedical engineering.   |   |        | [SW3] Assessment of knowledge<br>contained in written work and<br>projects        |         |          |  |
|  | [K6_K01] is ready to cultivate and<br>disseminate models of proper<br>behaviour in and outside the work<br>environment; make independent<br>decisions; critically evaluate<br>actions of their own, teams they<br>lead and organisations they are<br>part of; take responsibility for<br>results of these actions;<br>responsibly perform professional<br>roles, including:n - observing rules<br>of professional ethics and require<br>it from others,n - care for the<br>achievements and traditions of the<br>professionn |  | Adheres to the principles of<br>professional ethics. Knows and<br>understands the certification<br>process of medical products.     |   |        | [SK2] Assessment of progress of<br>work   |         |          |  |

| Subject contents   | Basic concepts in ethics. Ethics in business, work, corruption etc.                               |  |                               |  |  |  |  |  |
|--|---|--|-------------------------------|--|--|--|--|--|
|  | Conflict situations in healthcare. Human rights and bioethics, problems in procreation and other. |  |                               |  |  |  |  |  |
|  | Ethics in science; clinical trials; transplantology, genetics, cloning,                           |  |                               |  |  |  |  |  |
|  | Ethics in management and healthcare.  |  |                               |  |  |  |  |  |
|  | Intellectual property rights and patent regulations.  |  |                               |  |  |  |  |  |
|  | Certification of medical products and instruments. Duties and rights of medical producers.        |  |                               |  |  |  |  |  |
|  | Accreditation and quality in medical engineering.   |  |                               |  |  |  |  |  |
| Prerequisites<br>and co-requisites                             |   |  |                               |  |  |  |  |  |
| Assessment methods<br>and criteria                             | Subject passing criteria  | Passing threshold                                      | Percentage of the final grade |  |  |  |  |  |
|  | competent test  | 75.0%  | 50.0%                         |  |  |  |  |  |
|  | participation in lectures   | 75.0%  | 50.0%                         |  |  |  |  |  |
| Recommended reading  | Basic literature Digital material of the subject  |  |                               |  |  |  |  |  |
|  | Supplementary literature  | Materials concerning certification of medical products |                               |  |  |  |  |  |
|  | eResources addresses  | Adresy na platformie eNauczanie:                       |                               |  |  |  |  |  |
| Example issues/<br>example questions/<br>tasks being completed |   |  |                               |  |  |  |  |  |
| Work placement   | Not applicable  |  |                               |  |  |  |  |  |