

## Subject card

| Subject name and code                       | Studio Technology, PG_00048140                                                                                                                  |         |                                                        |            |                                                                                                 |               |     |     |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------|---------------|-----|-----|
| Field of study                              | Electronics and Telecommunications                                                                                                              |         |                                                        |            |                                                                                                 |               |     |     |
| Date of commencement of studies             | October 2021                                                                                                                                    |         | Academic year of realisation of subject                |            | 2024/2025                                                                                       |               |     |     |
| Education level                             | first-cycle studies                                                                                                                             |         | Subject group                                          |            | Optional subject group<br>Subject group related to scientific<br>research in the field of study |               |     |     |
| Mode of study                               | Full-time studies                                                                                                                               |         | Mode of delivery                                       |            | at the university                                                                               |               |     |     |
| Year of study                               | 4                                                                                                                                               |         | Language of instruction                                |            | Polish                                                                                          |               |     |     |
| Semester of study                           | 7                                                                                                                                               |         | ECTS credits                                           |            | 3.0                                                                                             |               |     |     |
| Learning profile                            | general academic profile                                                                                                                        |         | Assessme                                               | ent form   |                                                                                                 | assessment    |     |     |
| Conducting unit                             | Department of Multimedia Systems -> Faculty of Electronics, Telecommunications and Informatics                                                  |         |                                                        |            |                                                                                                 |               |     |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor                                                                                                                              |         | prof. dr hab. inż. Bożena Kostek                       |            |                                                                                                 |               |     |     |
|                                             | Teachers                                                                                                                                        |         | prof. dr hab. inż. Bożena Kostek<br>dr inż. Piotr Odya |            |                                                                                                 |               |     |     |
| Lesson types and methods of instruction     | Lesson type                                                                                                                                     | Lecture | Tutorial                                               | Laboratory | Projec                                                                                          | oject Seminar |     | SUM |
|                                             | Number of study hours                                                                                                                           | 15.0    | 0.0                                                    | 30.0       | 0.0                                                                                             |               | 0.0 | 45  |
|                                             | E-learning hours included: 0.0                                                                                                                  |         |                                                        |            |                                                                                                 |               |     |     |
| Learning activity and number of study hours | Learning activity Participation in classes include plan                                                                                         |         |                                                        |            |                                                                                                 | Self-study    |     | SUM |
|                                             | Number of study hours                                                                                                                           | 45      |                                                        | 3.0        |                                                                                                 | 27.0          |     | 75  |
| Subject objectives                          | The aim of the course is to familiarize students with the basic issues of studio technology and to show them the basics of audio engineer work. |         |                                                        |            |                                                                                                 |               |     |     |

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| Learning outcomes                                              | Course outcome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Subject outcome                                                                                                                                                                                                              | Method of verification                                                                                                                                        |  |  |  |  |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|                                                                | [K6_W35] Knows the concepts of the technique of signal transmission, operation of telecommunications networks and multimedia services and the rules for providing them                                                                                                                                                                                                                                                                                                                                                                                                                                                        | The student knows and understands the basic problems of audio recordings in multimedia products                                                                                                                              | [SW1] Assessment of factual knowledge                                                                                                                         |  |  |  |  |
|                                                                | [K6_W03] Knows and understands, to an advanced extent, the construction and operating principles of components and systems related to the field of study, including theories, methods and complex relationships between them and selected specific issues - appropriate for the curriculum                                                                                                                                                                                                                                                                                                                                    | The student has basic knowledge in the field of studio technology. He understands the construction of the modern audio and video studio.                                                                                     | [SW1] Assessment of factual knowledge                                                                                                                         |  |  |  |  |
|                                                                | [K6_W05] Knows and understands, to an advanced extent, methods of supporting processes and functions, specific to the field of study                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | The student knows and understands how to choose acoustic plans, microphones and stereo techniques for verbal and instrumental recordings as well as lighting techniques and composition of the visual image of the film set. | [SW1] Assessment of factual knowledge                                                                                                                         |  |  |  |  |
|                                                                | [K6_U03] can design, according to required specifications, and make a simple device, facility, system or carry out a process, specific to the field of study, using suitable methods, techniques, tools and materials, following engineering standards and norms, applying technologies specific to the field of study and experience gained in the professional engineering environment                                                                                                                                                                                                                                      | The student can prepare the authoring of audio-video recordings on optical media.                                                                                                                                            | [SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools |  |  |  |  |
| Subject contents                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                              |                                                                                                                                                               |  |  |  |  |
|                                                                | 1. Introduction. Fundamentals 2. Construction of an audio-video studio 3. Overview of microphone design types 4. Overview of loudspeaker and headphone design types 5. Speech and voice recording requirement 6. Musical instruments requirements 7. Sound production for multimedia 8. Shots in video production (shot selection, influence of shot selection on shot climate) 9. Movie location set up 10. Video lighting set up 11. Basic video compositing techniques 12. Preparation of sounds and videos for DVD/Blu-Ray authoring 13. Principles of intellectual property law 14. Lecture summary 15. Test  Laboratory |                                                                                                                                                                                                                              |                                                                                                                                                               |  |  |  |  |
|                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                              |                                                                                                                                                               |  |  |  |  |
|                                                                | <ol> <li>Preparation for a radio drama</li> <li>Preparation for a radio drama – editing</li> <li>TV Commercial recording</li> <li>Recording of a single musical instrument</li> <li>Preparation and recording of TV news</li> <li>CD/DVD authoring</li> <li>Students' productions reviewing</li> </ol>                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                              |                                                                                                                                                               |  |  |  |  |
| Prerequisites and co-requisites                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                              |                                                                                                                                                               |  |  |  |  |
| Assessment methods                                             | Subject passing criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Passing threshold                                                                                                                                                                                                            | Percentage of the final grade                                                                                                                                 |  |  |  |  |
| and criteria                                                   | Midterm colloquium                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 50.0%                                                                                                                                                                                                                        | 50.0%                                                                                                                                                         |  |  |  |  |
|                                                                | Practical exercise                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 50.0%                                                                                                                                                                                                                        | 50.0%                                                                                                                                                         |  |  |  |  |
| Recommended reading                                            | Basic literature  St. Miszczak, Podstawy technologii studyjnej w radiofonii i telewizji, WKiŁ, Warszawa, 1979. K. Blair Benson, Sound Engineering Handbook, McGraw Hill, New York, 1988. H. Wyatt, T. Amyes, Audio Post Production for Television and Film, Focal Press, Amsterdam, 2005. J. Rose, Audio Postproduction for Digital Video, CMPBooks, San Francisco, 2002. St. Miszczak, Teoretyczne zasady reżyserii dźwięku w radiofonii i telewizji, WKiŁ, Warszawa, 1976. J. Eargle, Sound Recording, Van Nostrand, New York, 1976. S. Price, Digital Audio Editors, Studio Sound, March 1989.                             |                                                                                                                                                                                                                              |                                                                                                                                                               |  |  |  |  |
|                                                                | Supplementary literature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | No requirements                                                                                                                                                                                                              |                                                                                                                                                               |  |  |  |  |
| Example issues/<br>example questions/<br>tasks being completed | eResources addresses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Adresy na platformie eNauczanie:                                                                                                                                                                                             |                                                                                                                                                               |  |  |  |  |
| Data unidealism                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                              | Strong 2 7 2                                                                                                                                                  |  |  |  |  |

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| Work placement | Not applicable |
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