

Subject card

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|--|--|--|------------------------------|-------------------------------------|------------------------|------------|-----|
| Subject name and code | Chemical methods of investigating traces of crimes - laboratory classes, PG_00134640 | | | | | | |
| Field of study | Criminology | | | | | | |
| Date of commencement of studies | October 2026 | Academic year of realisation of subject | | | 2027/2028 | | |
| Education level | Master's studies | Subject group | | | Optional subject group | | |
| Mode of study | part-time studies | Mode of delivery | | | at the university | | |
| Year of study | 2 | Language of instruction | | | Polish | | |
| Semester of study | 3 | ECTS credits | | | 3.0 | | |
| Learning profile | academic | Assessment form | | | credit | | |
| Conducting unit | Faculty of Law and Administration -> Rector | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | dr hab. Paweł Niedziałkowski | | | | |
| | Teachers | | | | | | |
| Lesson types | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 0.0 | 0.0 | 15.0 | 0.0 | 0.0 | 15 |
| | E-learning hours included: 0.0 | | | | | | |
| Learning activity and number of study hours | Learning activity | Participation in didactic classes included in study plan | | Participation in consultation hours | | Self-study | SUM |
| | Number of study hours | 15 | | 0.0 | | 60.0 | 75 |
| Subject objectives | To be introduced to the knowledge of occupational safety and health (OSH) rules.Acquiring the ability to conduct simple chemical experiments related to forensic technology.Preparation for experimental work by learning and practicing the skills of using laboratory equipment and chemical reagents used in the course of the exercises.Acquiring the ability to work in a team and to prepare documentation of the results of conducted research, their interpretation and form accurate conclusions. Practical introduction to methods and simple apparatus for physicochemical studies. | | | | | | |

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| Learning outcomes | Course outcome | Subject outcome | Method of verification |
| | [KRYMMU2_U02] Is able to independently acquire knowledge and develop professional competences using various sources (in native and foreign languages) and modern technologies. | Can independently acquire knowledge from various sources, including Polish and foreign-language literature. Effectively uses modern technologies in the process of education and professional development. Develops professional competencies by utilizing available materials and tools in both Polish and foreign languages. | [SU4] test/exam - oral or written |
| | [KRYMMU2_U01] Is able to apply theoretical knowledge of criminology and related disciplines to analyse, synthesise and interpret complex and non-routine problems, as well as to formulate solutions in changing and unpredictable conditions. | Applies theoretical knowledge from the field of criminology and related disciplines to solve complex and unconventional problems by conducting their analysis, synthesis, and interpretation, and formulating appropriate solutions. | [SU4] test/exam - oral or written |
| | [KRYMMU2_U05] Is able to independently propose solutions to problems, carry out decision-making processes in this area, organise and coordinate team work, and act in an entrepreneurial manner. | Possesses the ability to independently propose solutions to research problems, conduct the decision-making process, organize and coordinate team work, and take appropriate actions. | [SU4] test/exam - oral or written |
| | [KRYMMU2_K02] Responsibly prepares for work, is able to set priorities and plan activities, and takes responsibility for the performance of assigned tasks and team activities. | Plans and organizes work in the laboratory. Responsibly carries out assigned research tasks. Collaborates in a team and shares responsibility for the obtained research results. | [SK4] test/exam - oral or written |
| [KRYMMU2_W02] Has an in-depth knowledge of the nature of natural sciences related to the studied major, their place in the system of sciences and their mutual relations | Has an in-depth knowledge of the natural sciences related to the studied field, understands their place in the system of sciences, and is familiar with the interrelationships between them. | [SW4] test/exam - oral or written | |
| Subject contents | The laboratory exercises are divided into two thematic blocks. The first part (KCHA) consists of qualitative analysis of selected ions and anions by chemical methods. Quantitative analysis of selected acids, bases and analyte found in everyday life (e.g.: wine, or apple juice), and a laboratory on the disclosure of fingerprint traces by chemical and physicochemical methods. The second part (KAS) of the laboratory exercises consists of qualitative and quantitative analysis used in forensic science using chromatographic techniques including gas chromatography, thin-layer chromatography | | |
| Prerequisites and co-requisites | | | |
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | report from KCHA laboratories | 51.0% | 66.6% |
| | report from KAS laboratories | 51.0% | 33.4% |
| Recommended reading | Basic literature | 1. Z. Ruskowski, Fizykochemia kryminalistyczna, CLK KGP, Warszawa 1992. 2. J. Moszczyński, Ślady w kryminalistyce, Difin, Warszawa 2007. 3. Stepnowski P., Synak E., Szafranek B., Kaczyński Z. Techniki separacyjne. Wydawnictwo UG 2010. | |
| | Supplementary literature | 1. L. Rodowicz, Kryminalistyczne badanie śladów obuwia, CLK KGP, Warszawa 2000. 2. J. Mazepa, Vademecum techniki kryminalistyki, Oficyna, Warszawa 2009 | |
| | eResources addresses | | |
| Example issues/ example questions/ tasks being completed | 1. State the principle of operation of a liquid/gas chromatograph. 2. State the principle of chromatography. 3. Specify the method for detecting basic metal ions (Ag, Cu, Hg). | | |
| Work placement | Not applicable | | |

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