



Subject card

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|---|--|--|---|-------------------------------------|--|------------|-----|
| Subject name and code | Safety at work, PG_00060839 | | | | | | |
| Field of study | Chemical Technology | | | | | | |
| Date of commencement of studies | October 2024 | Academic year of realisation of subject | | | 2024/2025 | | |
| Education level | first-cycle studies | Subject group | | | Obligatory subject group in the field of study | | |
| 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 | | | 2.0 | | |
| Learning profile | general academic profile | Assessment form | | | assessment | | |
| Conducting unit | Department of Polymers Technology -> Faculty of Chemistry | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | prof. dr hab. inż. Janusz Datta | | | | |
| | Teachers | | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 15.0 | 0.0 | 15.0 | 0.0 | 0.0 | 30 |
| | 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 | 30 | | 2.0 | | 18.0 | 50 |
| Subject objectives | Familiarizing students with the issues in the field of work safety. | | | | | | |
| Learning outcomes | Course outcome | | Subject outcome | | Method of verification | | |
| | [K6_K03] is aware of the responsibility for his/her own work and is ready to follow the rules of teamwork and take responsibility for the tasks performed jointly | | The student responsibly carries out the assigned tasks, including the use of the principles of safe work in laboratories and technological halls. | | [SK5] Assessment of ability to solve problems that arise in practice | | |
| | [K6_W12] knows the chemical nomenclature in Polish and specialized terms related to chemical technology | | The student uses knowledge of specialized terms related to chemical technology, including designations related to hazards in the workplace. | | [SW1] Assessment of factual knowledge | | |
| | [K6_U12] applies the principles of health and safety at work | | The student uses the principles of safe work in laboratories and process halls and is able to assess chemical hazards and apply the principles of occupational health and safety to them in a specific case | | [SU1] Assessment of task fulfilment | | |
| Subject contents | Issues within the subject: <ol style="list-style-type: none">1. National and international regulations on occupational safety and health.2. Hazards in the workplace, including during work in laboratories.3. Personal protective equipment, protective clothing, work clothes.4. Material safety data sheets for chemicals. Signs related to hazards (pictograms).5. Effects of hazards, including ways to minimize and prevent hazards in the workplace.6. Safety procedures prevailing in the workplace (including process hall).7. General principles of working with apparatus of the chemical industry.8. Principles of safe work with various machines of the chemical industry.9. Hazards in the workplace, including during process hall work - causes, consequences and methods of prevention.10. Measurement of harmful factors at workplaces.11. Selected examples of accidents at the workplace in the chemical industry/laboratory. Solving situational/workstation problems.12. Monitoring of safe work.13. Organization of work in a team hierarchy of competence in the field of work safety.14. Management of safety at work and risks.15. Assessment methods and calculation of occupational risk assessment. Accidents in the workplace first aid. | | | | | | |

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| Prerequisites and co-requisites | Passed health and safety training for students beginning their education at PG | | |
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | test | 50.0% | 50.0% |
| | laboratory completion | 50.0% | 50.0% |
| Recommended reading | Basic literature | <p>1. ACT of June 26, 1974 Labor Code, Journal of Laws. 1974 No. 24 item 141</p> <p>2. Marek Wasielewski, Wiktor Nikolajewicz Dawydow, Bezpieczeństwo w pracowni chemicznej, Wydawnictwa Naukowo-Techniczne, Warszawa 2008</p> <p>3. Rączkowski B., BHP w praktyce, oddk Gdańsk, 2022 i wydania wcześniejsze</p> <p>4. Firkowski A., Religa P., „Bezpieczeństwo pracy z substancjami i preparatami chemicznymi, Uniwersytet Technologiczno-Humanistyczny w Radomiu, Radom 2009</p> <p>5. Collective work/Praca zbiorowa, BHP w firmie Bezpieczeństwo i higiena pracy od A do Z, Wydawnictwo: Wiedza i Praktyka, 2022</p> | |
| | Supplementary literature | <p>1. Regulation of the Council of Ministers of September 2, 1997 on the service of occupational safety and health.</p> <p>2. Skowroń J., Zapór L., Pośniak M., Szewczyńska M., Lisowski A., Czynniki chemiczne w środowisku pracy, Centralny Instytut Ochrony pracy, Państwowy Instytut Badawczy, 2006</p> <p>3. Michalik J. S., Poważne awarie chemiczne, Centralny Instytut Ochrony pracy, Państwowy Instytut Badawczy, 2007</p> <p>4. Michalik J. S., Zapobieganie poważnym awariom przemysłowym, Centralny Instytut Ochrony pracy, Państwowy Instytut Badawczy, 2005</p> | |
| | eResources addresses | Adresy na platformie eNauczanie: | |
| Example issues/ example questions/ tasks being completed | <p>Theoretical issues: regulations for safe work. Knowledge of the designations of basic hazards in chemical laboratories, material laboratories or process halls. Legal regulations on safe work. Rules of conduct in case of danger (including fire, chemical contamination, biological contamination) in the workplace.</p> <p>Laboratory issues: the ability to analyze the data sheet of chemical substances (toxicity of chemicals, determination of toxicity); design of procedures to be followed in case of a) fire, b) failure of water and sewage system, c) biological contamination, d) electrical system; measurement of noise in technological halls, measurement of concentrations of selected harmful factors. Calculation of occupational risk - determination of consequences and probability of danger.</p> | | |
| Work placement | Not applicable | | |