SZKOŁA GŁÓWNA GOSPODARSTWA WIEJSKIEGO

# Power tools for woodworking

Educational subject description sheet

## Basic information

| | |
|---|---|
| **Field of study**<br>Wood Technology<br>**Speciality**<br>-<br>**Organizational unit**<br>Faculty of Wood Technology<br>**Study level**<br>first cycle (engineering degree)<br>**Study form**<br>full-time studies<br>**Education profile**<br>General academic | **Didactic cycle**<br>2024/25<br>**Subject code**<br>TDRTDS_D.320.05408.24<br>**Lecture languages**<br>english<br>**Mandatory**<br>Elective subjects<br>**Block**<br>Major subjects<br>**Disciplines**<br>Forest science |

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|---|---|
| **Coordinator** | Radosław Auriga |
| **Teacher** | Radosław Auriga |

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|---|---|---|
| **Period**<br>Semester 6 | **Examination**<br>Pass with grade<br><br>**Activities and hours**<br>Laboratory exercises: 15 | **Number of ECTS points**<br>1 |

## Goals

| Code | Goal |
|---|---|
| C1 | The aim of the course is to familiarize students with power tools for carpentry work and systems of solutions supporting carpentry work. |

## Subject's learning outcomes

| Code | Outcomes in terms of | Effects | Examination methods |
|---|---|---|---|
| **Knowledge – Student knows and understands:** | | | |
| W1 | the principle of operation of power tools dedicated to carpentry work | TD_K3_W03, TD_K3_W04_inz | Oral credit, Project |
| W2 | processes occurring during cutting, drilling, milling, joining, grinding and dust removal | TD_K3_W03, TD_K3_W04_inz | Oral credit |
| **Skills – Student can:** | | | |
| U1 | select the appropriate tool and device for a specific type of technological operation | TD_K3_U05_inz, TD_K3_U06_inz | Project |
| U2 | make a critical analysis of the functioning of power tools dedicated to carpentry work | TD_K3_U06_inz | Oral credit |
| **Social competences – Student is ready to:** | | | |
| K1 | use power tools dedicated to carpentry work in a responsible and conscious manner | TD_K3_K01 | Project |

## Study content

| No. | Course content | Subject's learning outcomes | Activities |
|---|---|---|---|
| 1. | Use of corded and cordless power tools. Organization of a work station with power tools. Classification and characteristics of power tools. Cutting equipment (jigsaws, plunge saws, saws); drills and screwdrivers; surface finishing equipment (grinders); power tools for connecting elements; milling equipment; power tools for gluing edges, dust colection systems dedicated to power tools. Selection of tools for a specific type of machining. | W1, W2, U1, U2, K1 | Laboratory exercises |

## Course advanced

| Activities | Methods of conducting classes |
|---|---|
| Laboratory exercises | Discussion, Presentation, Problem solving |

| Activities | Examination method | Percentage |
|---|---|---|
| Laboratory exercises | Project | 50% |
| Laboratory exercises | Oral credit | 50% |

| Activities | Credit conditions |
|---|---|
| Laboratory exercises | Design of a simple carpentry object. |

## Literature

**Obligatory**

1. Catalogs and materials provided by power tool manufacturers

## Calculation of ECTS points

| **Activity form** | **Activity hours*** |
|---|---|
| Laboratory exercises | 15 |
| Preparing the project | 15 |
| | |
| **Student workload** | **Hours**<br>30 |
| **Number of ECTS points** | **ECTS**<br>1 |

* hour means 45 minutes

## Effects

| Code | Content |
|---|---|
| TD_K3_K01 | Absolwent jest gotów do krytycznej oceny posiadanej wiedzy i odbieranych treści |
| TD_K3_U05_inz | Absolwent potrafi projektować, zgodnie z zadaną specyfikacją, oraz wykonywać typowe dla kierunku studiów proste urządzenia, obiekty, systemy lub realizować procesy, używając odpowiednio dobranych metod, technik, narzędzi i materiałów |
| TD_K3_U06_inz | Absolwent potrafi dokonać krytycznej analizy sposobu funkcjonowania i ocenić istniejące rozwiązania techniczne, w szczególności urządzenia, systemy i procesy w zakresie technologii drewna, z uwzględnieniem aspektów systemowych i pozatechnicznych, w tym aspektów etycznych |
| TD_K3_W03 | Absolwent zna i rozumie zagadnienia z zakresu technologii, narzędzi i materiałów stosowanych przy rozwiązywaniu zadań inżynierskich z zakresu szeroko pojętego drzewnictwa |
| TD_K3_W04_inz | Absolwent zna i rozumie podstawowe zagadnienia dotyczące procesów zachodzących w cyklu życia urządzeń, obiektów i systemów technicznych stosowanych w przemyśle drzewnym |