

## Course description

<b>Course abbreviation:</b>	KTO/PRAX	<b>Page:</b>	1 / 3
<b>Course name:</b>	Practice in a manufacturing company		
<b>Academic Year:</b>	2023/2024	<b>Printed:</b>	03.06.2024 08:00

<b>Department/Unit /</b>	KTO / PRAX			<b>Academic Year</b>	2023/2024
<b>Title</b>	Practice in a manufacturing company			<b>Type of completion</b>	Pre-Exam Credit
<b>Accredited/Credits</b>	Yes, 20 Cred.			<b>Type of completion</b>	Combined
<b>Number of hours</b>	Practice 13 [Weeks/Semester]				
<b>Occ/max</b>	Status A	Status B	Status C	<b>Course credit prior to</b>	NO
<b>Summer semester</b>	0 / -	0 / -	0 / -	<b>Counted into average</b>	NO
<b>Winter semester</b>	1 / -	0 / -	0 / -	<b>Min. (B+C) students</b>	5
<b>Timetable</b>	Yes			<b>Repeated registration</b>	NO
<b>Language of instruction</b>	Czech			<b>Semester taught</b>	Winter semester
<b>Optional course</b>	Yes			<b>Internship duration</b>	0
<b>Evaluation scale</b>	S\N				
<b>No. of hours of on-premise</b>					
<b>Auto acc. of credit</b>	Yes in the case of a previous evaluation 4 nebo nic.				
<b>Periodicity</b>	K				
<b>Substituted course</b>	None				
<b>Preclusive courses</b>	N/A				
<b>Prerequisite courses</b>	N/A				
<b>Informally recommended courses</b>	N/A				
<b>Courses depending on this Course</b>	N/A				

### Course objectives:

The aim of the course is to acquire practical knowledge and skills from real engineering operations focusing on the organization, adjustment and programming of NC machines and production quality management

### Requirements on student

- mandatory participation in practice at the manufacturing company
- positive evaluation by the supervisor
- pass the seminar project which will be including a solution of process problems

### Content

Solving of practical problems in the field of NC programming and quality control in the selected manufacturing company

### Fields of study

### Guarantors and lecturers

- **Guarantors:** Ing. Jan Hnátík, Ph.D. (100%)
- **Tutorial lecturer:** Ing. Jan Hnátík, Ph.D. (100%), Ing. Luboš Kroft, Ph.D. (100%)

### Literature

- **Basic:** Dillinger, Josef. *Moderní strojírenství pro školu i praxi*. Vyd. 1. Praha : Europa-Sobotáles, 2007. ISBN 978-80-86706-19-1.
- **Recommended:** Štulpa, Miloslav. *CNC : programování obráběcích strojů*. První vydání. 2015. ISBN 978-80-247-5269-3.

**Time requirements****All forms of study**

Activities	Time requirements for activity [h]
Presentation preparation (report) (1-10)	10
Practical training (number of hours)	520
<b>Total:</b>	<b>530</b>

**assessment methods****Knowledge - knowledge achieved by taking this course are verified by the following means:**

- Skills demonstration during practicum
- Continuous assessment

**Skills - skills achieved by taking this course are verified by the following means:**

- Skills demonstration during practicum
- Self-evaluation

**Competences - competence achieved by taking this course are verified by the following means:**

- Skills demonstration during practicum

**prerequisite****Knowledge - students are expected to possess the following knowledge before the course commences to finish it successfully:**

- to describe the individual methods of NC program creation
- to describe the generation of NC data through postprocessors
- to describe individual machining methods
- to describe quality management methods

**Skills - students are expected to possess the following skills before the course commences to finish it successfully:**

- to create the NC program by the chosen programming method
- to set up a technological procedure for machining according to the drawing documentation
- to select suitable cutting tools and clamping

**Competences - students are expected to possess the following competences before the course commences to finish it successfully:**

- N/A

**teaching methods****Knowledge - the following training methods are used to achieve the required knowledge:**

- Internship
- Individual study
- Task-based study method
- Self-study of literature

**Skills - the following training methods are used to achieve the required skills:**

- Internship
- Task-based study method
- Individual study

**Competences - the following training methods are used to achieve the required competences:**

- Internship

Task-based study method

**learning outcomes****Knowledge - knowledge resulting from the course:**

- to describe machining processes in practice
- to explain the organization of engineering production, especially with a focus on machining

**Skills - skills resulting from the course:**

- to create NC programs according to the assignment
- to set up NC machine
- to select cutting conditions for the selected type of workpiece and cutting material

**Competences - competences resulting from the course:**

N/A

**Course is included in study programmes:**

Study Programme	Type of	Form of	Branch	Stage	St. plan v.	Year	Block	Status	R.year	R.
Engineering	Bachelor	Full-time	Programming of NC Machines	1	2020	2023	Povinné předměty 4. ročníku	A	4	ZS
Engineering	Bachelor	Full-time	Quality Control	1	2020	2023	Povinné předměty 4. roč.	A	4	ZS