DIGITAL CONTROL
OF MACHINE TOOLS

INTRODUCTORY LECTURE

sl.dr.ing. Sorin HERLE

- **MACHINE TOOLS**
- **NUMERICAL CONTROL**
- **CALCULATION**
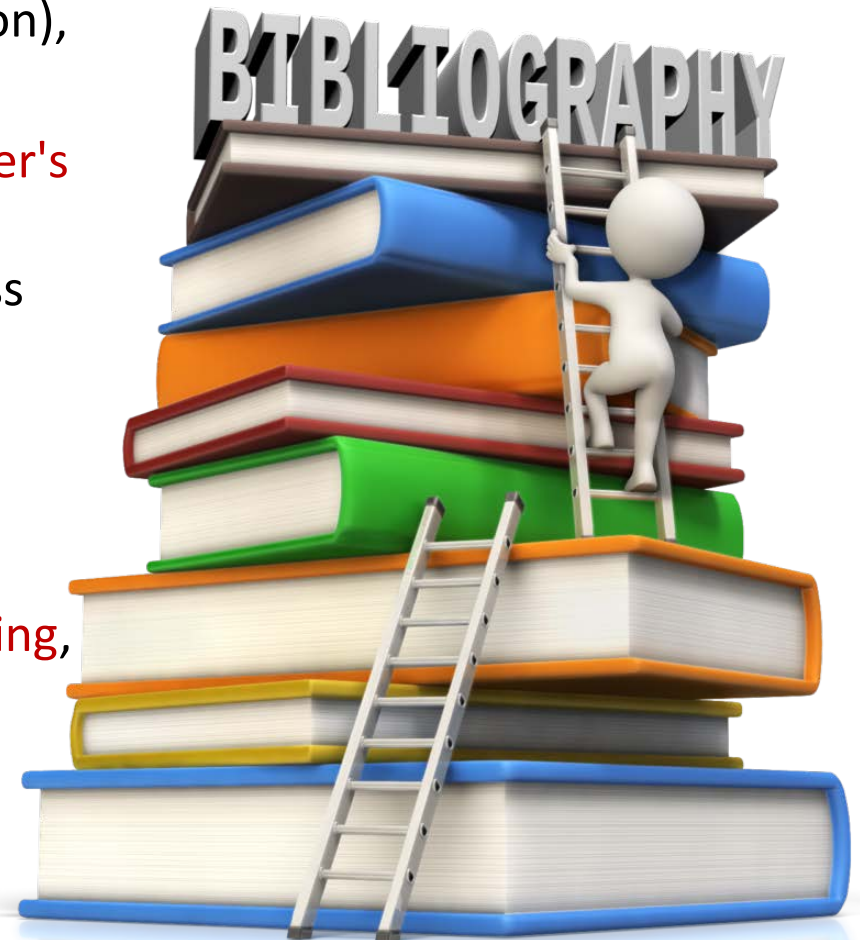- **PROGRAMMING**
- **ADVANTAGES AND DISADVANTAGES**

THE COURSE CONTENT

C1 – **Introduction to CNC machine tools** (25.02.2025)

C2 – **Basics of CNC programming** (04.03.2025)

C3 – **Programming the linear trajectories** (11.03.2025)

C4 – **Programming the circular trajectories** (18.03.2025)

C5 – **Programming the milling operations** (25.03.2025)

C6 – **Programming the pocket milling operations** (01.04.2025)

C7 - **Programming the drilling operations** (08.04.2025)

C8 – **Programming the milling cycles - Part one** (15.04.2025)

C9 – **Programming the milling cycles - Part two** (29.04.2025)

C10 – **Turning operations** (06.05.2025)

C11 – **Programamming the turning operations** (13.05.2025)

C12 – **Programming the turning cycles** (20.05.2025)

C13 – **CAD-CAM systems** (27.05.2025)

C14 – **Summary of the course** (03.06.2025)

BIBLIOGRAPHY

- CNC Programming Handbook (3rd edition), Peter Smid, Industrial Press 2007
- CNC Programming Techniques: An Insider's Guide to Effective Methods and Applications, Peter Smid, Industrial Press 2005
- CNC Tips and Techniques, Peter Smid, Industrial Press 2013
- CNC Programming Guide: A Beginner's Guide On How To Learn CNC Programming, Tammy L. Barraza, August 19, 2023
- Digital Control of Machine Tools, Sorin Herle, UTPRESS 2017

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EVALUATION

COURSE 50%

Post-lecture quizzes (10 choice question/quiz/lecture, 1 point /right answer) or EXAM(140 choice questions and exercises)
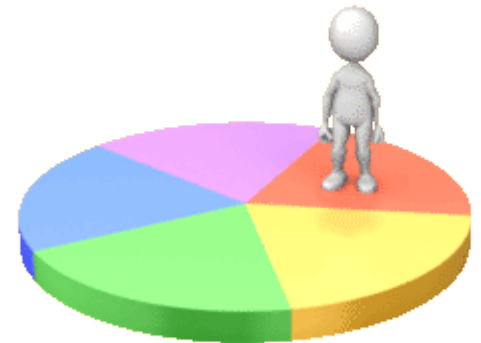
LABS 50%

12 laboratories evaluated at the end of each lab (**50%**)

A laboratory work is considered passed only if a minimum 50% of the maximum score is acquired.

Choice questions and exercises on the exam are not mandatory if from the post-lecture quizzes were accumulated at least 70 points.

The exam is considered passed ONLY if, for each component of the final mark was obtained at least 50% of the maximum score!

CONTACT

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