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Topics of the admission interview
to the *Engineering of Advanced Manufacturing Processes*
Master Study Program

Field of study: *Industrial Engineering*
Faculty: Technological Engineering and Industrial Management

Following the interview, the admission board evaluates the candidates based on general criteria and the demonstrated knowledge in the field.

1. Previous or current connections to the field of the master program (*30% of the final grade)*
   - Study courses (bachelor, master, training) completed in the envisaged or related fields;
   - Current or past workplaces in the envisaged or related fields;
   - Works/publications in the field: degree project, published scientific articles, participations in student scientific or professional contests;
   - Other relevant connections to the study field presented by the candidate

2. Motivation to study for the master's degree *(30% of the final grade)*
   - Presentation of the motives emphasizing the decision to enroll in the study program. Aspects recommended to be discussed: completed professional training and current experience, envisaged competences and use of such in the candidate's professional career;
   - Arguments that support the candidate's availability to participate in the teaching, learning and research activities entailed by the master's program;
   - Details concerning the candidate's current activities and ways of reconciliation with the activities entailed by the master's program.

3. Capacity of operating with the specific concepts in the field (*30% of the final grade)*

The candidate's answers to questions connecting the current professional knowledge and/or experience to the envisaged field of study covered by the master's program.

The questions will be based on the following topics:

1. Manufacturing technologies

I.1. Technological cutting processes: turning, milling, drilling, grinding

I.2. Technological processes for cold forming processing: cutting-perforation, bending, stamping

References:

1. Zhou, Z.; Xie, S.; Chen, D. Fundamentals of Digital Manufacturing Science, Springer Series in Advanced Manufacturing, Springer London Dordrecht Heidelberg New York, 2012.
2. Mikell, G. Fundamentals of Modern Manufacturing. Materials, Processes, and Systems. Fourth Edition. JOHN WILEY & SONS, INC, 2010.
3. Geng, H. Manufacturing Engineering Handbook, Second Edition, McGraw-Hill Education: New York, Chicago, San Francisco, Athens, London, Madrid, Mexico City, Milan, New Delhi, Singapore, Sydney, Toronto, 2016.
4. Nee, A. Handbook of Manufacturing Engineering and Technology, Springer-Verlag London, 2015.

II. **General knowledge of metallic and non-metallic materials**

II.1. Metals. Technological processing possibilities

II.2. Plastics. Technological processing possibilities

References:

1. Groover, M., Fundamentals of modern manufacturing. Materials, processes and systems. 4th Edition, Wiley & Sons Inc., 2010.
2. Harper, Ch.A., *Modern Plastics Handbook*, McGraw Hill, 2000.
3. Ensinger, *Engineering Plastics*, Ensinger GmbH, www.ensinger-online.com.
4. Osswald, T., et al., *International Plastics Handbook*, 4th Edition, Hanser Gardener Publications, 2006