

# Metalurške tehnologije VSŠ

## 3. Letnik - obvezni predmeti

### Izdelovalne tehnologije - Livarstvo

- Trbižan, M.: Livarstvo, skripta.
- Mrvar, P.: Livarski praktikum, skripta.
- Cambell, J.: Castings, OBE, Feng, Butterworth Heinemann Ltd, 1991.

### Izdelovalne tehnologije - Preoblikovanje

- FAJFAR, Peter. Tehnika preoblikovanja. Ljubljana: Naravoslovnotehniška fakulteta, Oddelek za materiale in metalurgijo, 2010. 126 str.
- TSCH&TSCH, Heinz. Metal forming practise : processes, machines, tools - Berlin : Springer, cop. 2006. - XII, 405 str.
- TURK, Radomir, KUGLER, Goran, TERČELJ, Milan, BOMBAČ, David. Preoblikovanje kovinskih materialov. Ljubljana: Naravoslovnotehniška fakulteta, Oddelek za materiale in metalurgijo, 2008. 181 str.

### Toplotna obdelava

- Honeycombe R.W.K., Bhadeshia H.K.D.H. : Steels. Microstructure and Properties, Edward Arnold, London, 1995, str. 83 – 198.
- Polmear I. J. Light alloys. Metallurgy of the light metals, Edward Arnold, London, 1995, str. 24 – 65.
- Kumar Sinha: Ferrous Physical Metallurgy, Butterworth Pub. Stoneham MA 02180, 1989, str. 819.
- H.J. Wärmebehandlung von Stahle, Metallkundliche Grundlagen, VEB, Deutsche Verlag für Grundstoffindustrie, Leipzig, 1971, str. 316.

### Varjenje

- KEJŽAR R.: Fizikalno kemijske in metalurške osnove varjenja, skripta za študente FS in OMM, Ljubljana, 2005.
- PROSENC V.: Varilска tehnologija, skripta za študente, Ljubljana, 1989.
- GRANJON H.: Metalurške osnove varjenja (prevod Štular P.), Ljubljana ZDVT, 1996.

### Proizvodno inženirstvo

- C. Poli, Design for Manufacturing, 2001.
- G.E. Dieter, Engineering Design, A material and Processing Approach, 2000.
- R. C. Creese, M. Adithan, B.S. Pabla, Estimation and Costing for the Metal Manufacturing Industries, 1992.
- K.G. Swift, J.D. Booker, Process Selection from Design to Manufacture, 2003.
- G. Boothroyd, P. Dewhurst, Product Design for Manufacture Assembly, 2002.

#### Praktikum iz preiskave materialov

- S.Spač: Metalografska analiza, FNT, Ljubljana, 1993.
- B.Markoli: Analiza strukture in sestave, NTF, Ljubljana, 2008.
- B. Markoli: Fizikalna metalurgija 1, Praktikum I in II. del, NTF, Ljubljana, 2008.
- Mechanical testing and evaluation, ASM handbook, Vol.8, Materials Park, Ohio, 2000.
- A. Smolej: Preiskava materialov, Slikovno gradivo predmeta Preiskava materialov za VŠS Metalurške tehnologije, Ljubljana, 2007.
- Krautkr&auml;mer J, Krautkr&auml;mer H.: Werkstoffprüfung mit Ultraschall, Springer Verlag, Berlin, 1986.
- M&uuml;ller E. A.W.: Handbuch der zerst&ouml;rungsfreien Werkstoffprüfung, R. Oldenburg Verlag, M&uuml;nchen, 1999.
- Halmshaw R.: Non-destructive testing, Arnold, London, 1991.

### 3. Letnik – izbirni predmeti

#### Analiza napak in poškodb

- TIMMINS, F.P. Fracture Mechanics and Failure Control for Inspectors and Engineers. Materials Park Ohio: ASM International, 1994.
- KALPAKJIAN, S. Tool and Die Failures – Source Book. Materials Park Ohio: ASM International, 1982.
- DAS, A.K. Metallurgy of Failure Analysis, New York: McGraw – Hill, 1996.
- Handbook of Case Histories in Failure Analysis. Materials Park Ohio: ASM International, 1992.
- Allianz Handbook of Loss Prevention. Berlin – Munchen: Allianz Versicherungs AG, 1987.
- BOWMAN, K. Mechanical Behaviour of Materials. New York: John Wiley & Sons, 2004.
- SCOTTI, J. Failure Prevention through Education. Materials Park Ohio: ASM International, 2000.
- Predpisi 14: Ljubljana: Zveza strojnih inženirjev in tehnikov, 2014.
- Von AKEN, C.D., HOSFORD, F.W. Reporting Results – A Practical Guide for Engineers and Scientists. Cambridge: Cambridge University Press, 2008.
- MATTHEWS, C.A. Guide to Presenting Technical Information. London: Professional Engineering Publishing, 2000.

#### Metalurgija prahov

- THIMMLER, F., OBERACHER, R. Introduction to Powder Metallurgy. Cambridge: Cambridge University Press, 1993.
- GERMAN, R.M. Sintering Theory and Practice. New York: John Wiley and Sons, 1996.
- ANGELO P.C., SUBRAMANIAN R. Powder metallurgy: Science, technology and application, PHI Learning Private Limited, New Delhi, 2008.
- GERMAN R.M. Sintering: From Empirical Observation to Scientific Principles, Elsevier Inc., 2014.

#### Inženirski materiali

- MARTIN, J. Materials for Engineering. Oxford: The Institute of Materials, 1996.
- ASHBY, M., SHERCLIFF, H. in CEBON, D. Materials – Engineering, Science, Processing and Design. Amsterdam: Elsevier, 2007.

#### Preiskovalne metode metalurških surovin

- C. A. Schacht: Refractories Handbook, Marcel Dekker Inc., New York, USA, 2004.
- John E. Bringas: Handbook of comparative world steel standards - 4th ed., ASTM International, West Conshohocken, PA, 2007.
- Raw materials specification manual, CMC Steel South Carolina, 2007.
- Standard for the Responsible Sourcing of Natural Raw materials, Global Head of Sustainability, 2013.

#### Metalurške peći

- HEILIGENSTEADT, W. Waermetechnische Rechnungen fuer Industrieoefen. Duesseldorf: Stahleisen Verlag, 1969.
- DESHMUKH, Y.V. Industrial Heating – Principles, Techniques, Materials, Applications and Design. London: Taylor & Francis, 2005.
- POPOVIĆ, Z. in RAIĆ, K. Peći i projektovanje u metalurgiji. Beograd: Naučna knjiga 1988.
- WARD, J. in COLLIN, R. Short Course on Industrial Furnace Technology, Vol.1, Vol. 2. Rio Tinto: CENERTEC, 2002.
- TRINKS, W., MAWHINNEY, M.H., SHANNON, R.A., REED, R.J. in GARVEY, J.R. Industrial Furnaces. New Jersey: John Wiley & Sons, 2004.
- MULLINGER, P. in JENKINS, B. Industrial and Process Furnaces – Principles, Design and Operation. Amsterdam: Butterworth – Heinemann, 2008.

#### Livarski materiali

- TRBIŽAN M. Livarstvo (2000).
- HOSFORD F. William: Materials Science, An intermediate text (2006).

#### Menedžment kakovosti

- Juran S.M.: Quality Control Handbook, 3rd Edition, McGraw-Hill, New York, 1979.
- Marolt J., Gomišček B.: Menedžment kakovosti, Založba Moderna organizacija, Kranj, 2005.
- Standardi ISO 9000: 2000 – Sistemi vodenja kakovosti, USM Republike Slovenije, Ljubljana (zadnja izdaja). Revija Kakovost (letniki 1992 – 2008).
- Lazić M.: Alati, metode i tehnike unapredženja kvaliteta, Univerzitet u Kragujevcu, Centar za kvalitet, Kragujevac, 2006.
- Ishikawa, K.: Kako celovito obvladati kakovost, Tehniška založba, Ljubljana 1987.

#### Metalurška keramika

- D. Kolar: Tehnična keramika 1, 2, Zavod Republike Slovenije za šolstvo in šport, Ljubljana, 1993.
- G. C. Kuczynski, N. A. Hooton, C. F. Gibbon: Sintering and related phenomena, Gordon and Breach Science Publishers, New York, 1967.
- W. D. Callister: Materials Science and Engineering: An Introduction Ch. 12, 13 and 16, John Wiley & Sons. Inc., 2003.
- R. Freer: Nanoceramics, The Institute of Materials, Bourne Press Ltd., Bournemouth, 1993.

**Posebni preoblikovalni postopki**

- R. Turk, G. Kugler, M. Terčelj, D. Bombač: Preoblikovanje kovinskih materialov, UL-NTF, OMM, 2008 (elektronska in tiskana verzija).
- K. Lange, Handbook of Metalforming; 1998.
- E. Doege, Handbuch Umformtechnik; 2007.
- S. Meyer, Untersuchungsmethodik zur Gefügecharakterisierung des Thixoforming von Aluminium und Stahl, 2000.
- D. Löhle, J. Haußling, H. Baltes, Microengineering of Metals and Ceramics; 2005.
- F. Vollertsen, S. Yuan, New Forming Technology; 2007.
- B. Verlinden, J. Driver, I. Samajdar, R. D. Doherty, Thermomechanical Processing of Metallic Materials; 2007.

**Umetnostno oblikovanje materialov**

- Campbell, J., Casting practice, Elsevier Butterworth-Heinemann, 2004.
- McRaven, C. The Blacksmith's Craft: A Primer of Tools & Methods, McRaven, C., 2005.
- Ruth, K., Artisan Welding Projects, Creative Publishing International, 2006.
- Zahner, L. W., Architectural Metals: A Guide to Selection, Specification, and Performance, John Wiley & Sons, Inc., 1995.

**Podjetništvo**

- B. Antončič, R. Hisrich, T. Petrin, A. Vahčič; Podjetništvo, 1. natis. - Ljubljana : GV založba, 2002.
- Thomas N Duening; Robert A Hisrich; Michael A Lechter, Technology entrepreneurship : taking innovation to the marketplace, Elsevier Science, Academic Press, 2015.

**Tuj jezik - Tehnična angleščina**

- Vukadinović Beslić N.: Mining & tunnelling : English for geotechnology and mining : visokošolski učbenik jezika stroke, Naravoslovnotehniška fakulteta, Oddelek za geotehnologijo in rudarstvo, Ljubljana, 2011, 95 str.

**3. Letnik – Izbirni praktikum****Praktikum izbrana metalurška proizvodna tehnologija**

- B. Deo, R. Boom: Fundamentals of Steelmaking Metallurgy, Prentice Hall International, UK, 1993.
- TRBIŽAN, M.: Livarstvo, skripta.
- TRINKS, W., MAWHINNEY, M.H., SHANNON, R.A., REED, R.J. in GARVEY, J.R. Industrial Furnaces. New Jersey: John Wiley & Sons, 2004.
- HOSFORD, W. F. Metal forming: mechanics and metallurgy. 3rd ed. New York, NY : Cambridge University Press, 2007.
- Honeycombe R.W.K., Bhadeshia H.K.D.H. : Steels. Microstructure and Properties, Edward Arnold, London.
- Polmear I. J. Light alloys. Metallurgy of the light metals, Edward Arnold, London.

**Praktikum inovativni metalurški izdelki in naprave**

- G. Bruggerman, V. Weiss, Innovations in Materials Processing, 2000.
- E. Doege, B.A. Behrens, Handbuch Umformtechnik; 2007.
- K. Lange, Umformtechnik, 1993.

<b>Praktikum produktni menedžment</b>
<ul style="list-style-type: none"><li>- Gorchels, Linda; The product manager's field guide : practical tools, exercises, and resources for improved product management, NewYork 2003.</li><li>- McGraw-Hill, Steven Haines, The Product Manager's Desk Reference, McGraw-Hill, 2008.</li></ul>

- Gorchels, Linda; The product manager's field guide : practical tools, exercises, and resources for improved product management, NewYork 2003.
- McGraw-Hill, Steven Haines, The Product Manager's Desk Reference, McGraw-Hill, 2008.