Program of Study **:** General Medicine

Course **:** 3D PRINTING IN MEDICINE

Abbreviation **:** LBF/VAB42

Schedule **:** 3 hours of seminars
4 hours of practical classes

Course Distribution **:** second year, summer semester

Number of Credits **:** 2

Course form **:** seminars, practical classes

Seminars will be held on 27th March 2023 from 14:30 to 16:45 in room 2.132**.** Practical classes will be held on 3rd April 2023 from 14:30 to 17:30 in room 2.132**.**

Teachers : **Mgr. MUDr. Martin Sněhota**
MUDr. Mgr. Robert Bajgar, Ph.D.

Seminars – room 2.132

	Date	Subject	Hrs.	Teacher
1	27.3.	Formative, subtractive and additive manufacturing. 3D objects in space. Acquiring 3D models (existing models, 3D scanning, designing a model, parametric modelling, extraction of 3D models from CT / MR). History of 3D printing. 3D printing technologies (FDM, SLA, DLP, SLS,..). Materials for 3D printing. Slicing and setting 3D printing parameters. Process of 3D printing. Use of 3D printing in medicine – presence and future.	3	SNĚHOTA

Practical classes – room 2.132

	Date	Subject	Hrs.	Teacher
1	3.4.	- 3D printing - 3D scanning - Extraction of 3D models from CT / MR	4	SNĚHOTA

Completed by : Practicavit (Course Unit Credit)

Requirements : 100% attendance at seminars and active participation at practical classes

Recommended literature:

Horvath: Mastering 3D Printing. APress, 2020. ISBN13 (EAN): 9781484258415

Wake: 3D Printing for the Radiologist. Elsevier - Health Sciences Division, 2021. ISBN13 (EAN): 9780323775731

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