

**Program of Study** : General Medicine  
**Course** : Clinical Rehabilitation  
**Abbreviation** : NEU/VA042  
**Schedule** : 10 hours of seminars  
10 hours of practical training  
**Course Distribution** : 4<sup>th</sup> year, 7<sup>th</sup> or 8<sup>th</sup> semester  
**Number of Credits** : 1  
**Course Form** : Seminars, practical training

### **Seminars and practical trainings:**

**Teachers :** MUDr. Petr Kolář, Ph.D.  
Prof. MUDr. Ing. Petr Hlušík, Ph.D.  
PhDr. Mgr. Barbora Kolářová, Ph.D.  
Mgr. Jiří Stacho  
Mgr. Marek Tomsa  
MUDr. Jiří Horníček  
MUDr. Rudolf Ditmar  
MUDr. Bronislava Schusterová  
Mgr. et Mgr. Petra Bastlová, Ph.D.  
MUDr. Nicole Musilová  
MUDr. Martin Johec  
Mgr. Hana Haltmar

**Study :** Block, Department of Rehabilitation  
  
8:00 - 9:30 joint seminar (Theoretic Institute – new building,  
room number - follow the website)  
  
10:00 - 11:45 practical exercises at the Department of  
Rehabilitation and Kinesiological Laboratories (group divided  
into two parts)

**Block Date:** **28.11. 2022** (TD 2.520/21/18)  
**12.12. 2022** (TD 2.520, 2.518/21)  
**20.02. 2023** (TD 2.518)  
**15.05. 2023** (TD 2.520/17)

<b>Block Day</b>	<b>Subject (of the seminars)</b>	<b>No. of Less.</b>
1	Introduction to rehabilitation, definition of concepts, rehabilitation concept in the Czech republic.	2
2	Functional movement disorders. Clinical applications from neurophysiology and kinesiology.	2
3	Basic principles of neurorehabilitation. Computed and robotic rehabilitation technologies.	2
4	Invasive rehabilitation and therapeutic modalities	2
5	Mechanisms of adaptive neuroplasticity, motor learning in rehabilitation therapy in neurological patients.	2
<b>Block Day</b>	<b>Subject (of practical exercises)</b>	<b>No. of Less.</b>
1	Kinesiologic laboratory, demonstration of robotic rehabilitation technologies.	1+1
2	Demonstration patients of rehabilitation department, rehabilitation examination (posture and motion assessment) Manipulative Therapy: Musculoskeletal Medicine: Karel Lewit	1+1
3	Demonstration patients of rehabilitation department, rehabilitation examination Manipulative Therapy: Musculoskeletal Medicine: Karel Lewit	1+1
4	Practical Functional Examination and Demonstration of acute rehabilitation of a patient with a ventilation and posture disorder.	1+1
5	Education of optimal dual mechanisms of breathing, posture and walking. Final interview.	1+1

**Completed by :** Credit, examination

**Requirements :** 100% attendance on all seminars and practical lessons  
practical examination of posture and motion assessment and successfully passed theoretical exam is required to obtain grade and credits

Any absence at seminars or practical lessons must be communicated in advance to MUDr. Petr Kolář, Ph.D., e-mail: [petr.kolar@fnol.cz](mailto:petr.kolar@fnol.cz) or to PhDr. Barbora Kolářová, Ph.D., e-mail: [barbora.kolarova@upol.cz](mailto:barbora.kolarova@upol.cz)  
Absence due to serious personal or health matters can be compensated for by attending a corresponding lesson in a future study block

**Literature :** Dietz, V., Ward, N.S.: Oxford textbook of neurorehabilitation. Oxford University Press, 2015, ISBN: 9780199673711

Nelson, A. et al.: Stretching Anatomy. Human Kinetics, 2007, ISBN10: 1-4504-3815-6

Page, P. et al.: Assessment and Treatment of Muscle Imbalance:  
The Janda Approach. Human Kinetics, 2010,  
ISBN-13: 9780736074001

Taub, E. (ed.): Neuroplasticity and Neurorehabilitation. Frontiers E-  
books, 2015, ISBN: 978-2-88919-392-9

Richards, J.: Biomechanics in Clinic and Research. Elsevier, 2008,  
ISBN-13: 978-0443101700