



## *The Hebrew University of Jerusalem*

### *Syllabus*

## *Attention deficit disorder - from the neurobiological basis to the social impact - 3422*

*Last update 09-02-2023*

*HU Credits: 2*

*Degree/Cycle: 2nd degree (Master)*

*Responsible Department: Early Childhood*

*Academic year: 0*

*Semester: 2nd Semester*

*Teaching Languages: Hebrew*

*Campus: Mt. Scopus*

*Course/Module Coordinator: Prof. Itai Berger*

*Coordinator Email: [itai.berger@mail.huji.ac.il](mailto:itai.berger@mail.huji.ac.il)*

*Coordinator Office Hours:*

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Teaching Staff:

Prof Itai Berger

Course/Module description:

Updated scientific knowledge regarding ADHD (Attention Deficit Hyperactivity Disorder) & neurobiology, diagnosis, imaging, treatment and understanding the disorder as a model for multidisciplinary team work.

Course/Module aims:

Learning outcomes - On successful completion of this module, students should be able to:

The students will be able to understand, inspect, research and communicate all relevant aspects of ADHD (from diagnosis to treatment) including all aspects of behavioural, educational, social and biological aspects.

The students will be able to explain, research and practice ADHD as a model of multidisciplinary team work.

Attendance requirements(%):

Teaching arrangement and method of instruction:

Course/Module Content:

1. Course Introduction
2. ADHD Neurobiology
3. CNS imaging in ADHD
4. Pre School ADHD
5. ADHD diagnosis
6. Comorbidity and Differential Diagnosis
7. Non Pharmacologic TX in ADHD
8. Pharmaco-Therapy in ADHD
9. ADHD and Psychiatry
10. ADHD and Autism
11. ADHD and Gender
12. ADHD and Toxic stress, Course summary

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Required Reading:

1

American Psychiatric Association (2013).  
*Diagnostic and statistical manual of mental disorders*  
DSM-5), 5th edn. Washington, DC.

2

<https://psychscenehub.com/psychinsights/neurobiology-of-adhd/>

3

Castellanos FX1, Proal E. Large-scale brain systems in  
ADHD: beyond the prefrontal-striatal model.  
*Trends Cogn Sci.* 2012 Jan;16(1):17-26.  
doi: 10.1016/j.tics.2011.11.007.

4 Berger I, Nevo Y. Early developmental cues for diagnosis of attention  
deficit/hyperactivity disorder in young children.

*Dev Disabil Res Rev.* 2011;17(2):170-9.

doi: 10.1002/ddrr.1111.

5 Wolraich ML, Hagan JF Jr, Allan C, Chan E, Davison D, Earls M, Evans SW, Flinn SK,  
Froehlich T, Frost J, Holbrook JR, Lehmann CU, Lessin HR, Okechukwu K, Pierce KL,  
Winner JD, Zurhellen W; SUBCOMMITTEE ON CHILDREN AND ADOLESCENTS WITH  
ATTENTION-DEFICIT/HYPERACTIVE DISORDER.

*Clinical Practice Guideline for the Diagnosis, Evaluation, and Treatment of Attention-  
Deficit/Hyperactivity Disorder in Children and Adolescents. Pediatrics.* 2019  
Oct;144(4). pii: e20192528. doi: 10.1542/peds.2019-2528.

6 Obioha O, Adesman A. Pearls, perils, and pitfalls in the  
assessment and treatment of attention-deficit/hyperactivity  
disorder in adolescents.

*Curr Opin Pediatr.* 2014 Feb;26(1):119-29.

doi: 10.1097/MOP.0000000000000053.

7 Will be updated

8

Same as in lecture #5

9 Will be updated

10

Peled J, Cassuto H, Berger I.

Processing speed as a marker to stimulant effect in clinical sample of children with  
high functioning autism spectrum disorder. *Nord J Psychiatry.* 2019 Nov 5:1-5. doi:  
10.1080/08039488.2019.1686063.

11

Haimov-Kochman R, Berger I. Cognitive functions of regularly cycling women may  
differ throughout the month, depending on sex hormone status; a possible

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*explanation to conflicting results of studies of ADHD in females. Front Hum Neurosci. 2014 Apr 1;8:191. doi: 10.3389/fnhum.2014.00191. eCollection 2014.*

12 <https://www.youtube.com/watch?v&eq;rVwFkcOZHJw>

*Additional Reading Material:*

*Grading Scheme:*

*Additional information:*