

Course Outline: KIN 453**Course Title: Understanding and Changing Physical Activity Behaviour**

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Drop-in Hours: To be confirmed

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Email Communication: For personal messages: use email and indicate “KIN 453” in the subject field. Response time to email inquiries is within 72 hours (weekends excluded).

Course Timetable

Class Schedule: Tuesdays and Thursdays: 2 pm to 3.30 pm. Location: Aquatic Ecosystems Research Laboratory (AERL) - 120. 2202 Main Mall.

Description: The links between physical inactivity and public health are well documented. This module is designed to give students an opportunity for advanced analysis of the field of exercise psychology. The module aims to develop a critical understanding of how physical activity is assessed, and what are the determinants of physical activity. Using various theoretical frameworks the influence of psychological factors will be examined, across different settings and populations, with a particular focus on interventions aimed at enhancing mental health. The module also aims to develop understanding of how psychology can be used to design effective interventions at the individual and community level. This course will provide a foundation in exercise psychology for graduate study.

Subject-specific outcomes:

1. Develop an understanding of ecological frameworks used to assess, design and evaluate health promotion interventions.
2. Development of practical skills in formulating, applying, and evaluating psychological theory-based interventions to promote physical activity.

Core-academic outcomes:

3. Ability to critically evaluate the processes of designing and evaluating physical activity interventions in the context of public health policy.
4. Ability to evaluate and apply knowledge of a range of different theoretical perspectives and concepts relating to interventions to promote physical activity.

Personal/transferable outcomes:

5. Work in small groups to solve problems

6. Demonstrate an ability to link theory to practice.

Teaching/Learning Methods:

Lectures/Group Work/Independent Study. The lectures will provide students with an overview of the core topics in this course. Lectures are used to present an overview of key information and will include interactive group activities where students can practice applying theory to practical situations. Independent study will be required in terms of reading in preparation for each lecture and completing course assignments. For these experiences students will be set a task to guide their independent learning, such as a topic or problem related to set reading or lecture material. A group project will also provide the opportunity for more in-depth investigation of key issues drawn from the lectures. Skills such as criticizing, analysis, problem solving and decision making are developed.

You will be working throughout the course in a group of 5 students. You can form your own groups or I will assign you to a group on September 16th. You will meet independently every two weeks to review articles as part of the reading scheme, and will also be working together on the group project. As a group you will be responsible for coordinating meetings and completing group tasks. It is expected that you will be available to meet with your group at the very least between 2 and 3.30 on thursdays. That is, **there is no excuse for not being able to find a time that everyone in your group can meet.**

Assessment Timetable:

| Assessment Type | Weight | Due Date |
|---|---------------|---|
| 1. 5 * Reading synopses | 20% | Every two weeks |
| 2. Group Task: Develop an exercise intervention for youth seeking help for depression | 55% | Draft outline (10% - November 3 rd) Final assignment (45% - December 8 th) |
| 3. Examination a) Abstract | 25% | Exam period |

Assessments**1. Reading synopsis (20%)**

This will include five one-page (300 word) synopses of current research articles plus critical commentary. Marks are given for successful completion within the established guidelines (2% for each synopsis and 2% for completion of group summary to be posted on canvas). This assessment task will enable students to evaluate differing views based on required reading and information from a variety of sources, and to disseminate and critically appraise research evidence.

2. Group Project (55%)

A problem-based learning exercise will provide an opportunity to collaborate on a project. The objective of this assignment is to integrate components of the course in terms of physical activity assessment, applying theory to practice, and planning and evaluation of interventions. The class has been asked to develop an exercise intervention for adolescents with depression. The general outline for the final assignment should be:

- Synthesis of evidence for exercise as a treatment for depression for youth
- Rationale for the intervention (including theoretical basis and logic model); and a cool acronym.
- A description of the intervention including discussion of
 - Content – what is the intervention aiming to deliver, and how?
 - Delivery method
 - Deliverer – who will deliver the intervention?
- Methods for evaluating the key outcomes, behaviours, and mediators of behavior change
- Outline of assessment of intervention implementation.

Draft outline including a logic model and addressing the above in bullet point required November 3rd (10%). A final group paper will be produced (maximum of 3000 words excluding references/appendices). During weeks 12-13, each group(s) will provide a brief oral presentation of the intervention via zoom to the instructor or a teaching assistant.

Opportunities will be provided weekly on Thursdays to discuss the project while course content and readings will be geared to support its development. The group will be responsible for identifying roles and responsibilities of each group member.

The final assessment includes two components. First, 80% of the final grade is based on the final report. Everyone shares the same grade based on the report assessment. The final 20% will consist of 10% based on self-assessment of personal contribution to the group project, and 10% based on average peer assessment. The self and peer assessment form are in Appendix 1.

3. Final exam – article synopsis (25%)

The final examination will be scheduled during the exam period and is worth 25% of the final grade. The exam will require you to write two 300 word abstracts of two short articles and identify four concerns with each presented article. A portion of the course structure consists of a student directed learning component requiring students to organise their own learning enabling them to address this section. Specifically, the synopsis tasks prepare you for this section of the examination.

The final exam will be held during the official examination period and will be 2 hours long. **IT WILL BE A WRITTEN EXAM.** Alternative exam dates will only be provided for students experiencing medical or serious family emergencies (and only where medical documentation is provided). Do not book flights or make travel arrangements for the holiday period until you know your exam schedule! All students must attend the final exam on the date allotted. This date is not negotiable and failure to show up at this time will result in a zero.

Required and Recommended Reading

There is no course textbook. All readings are available via the UBC library online. There is a range of core readings supporting each session - Students are expected to study the readings **each week**. Further independent reading will be required as directed by the reading group scheme and the intervention assignment. Support will be available throughout the course in terms of group work, and appointments can also be booked on an individual basis.

Recommended Text if interested in grad school as well as this course

Biddle, S.J.H., Mutrie, N., Gorely, T., & Faulkner, G. (2021). *Psychology of Physical Activity: Determinants, Well-Being and Interventions* (4th Edition). London: Routledge. A copy of this textbook is on 'reserve' in the Education Library for short reservations.

Course Outline

| | |
|--|---|
| Week 1 | |
| Tuesday, September 5 <ul style="list-style-type: none"> NO CLASS (IMAGINE DAY) | September 7 <ul style="list-style-type: none"> Course Outline and Introduction Intro to reading group scheme Intro to group project An ecological approach <i>Core reading: Sallis et al (2006)</i> |
| Week 2 | |
| September 12 <ul style="list-style-type: none"> PA assessment 1 <i>Core reading: Bauman et al (2006)</i> | September 14 <ul style="list-style-type: none"> PA assessment 2 <i>Core reading: Bauman et al. (2006)</i> |
| Week 3 | |
| September 19 <ul style="list-style-type: none"> Exercise as a treatment for depression: Making the case <i>Core reading: Oberste et al. (2020)</i> | September 21 Reading Group 1: PA and depression |
| Week 4 | |
| September 26 – VIRTUAL CANVAS <ul style="list-style-type: none"> Intervention Development 101 Mediating Variables and Physical Activity Theory/Interventions <i>Core reading: Biddle et al., 2021</i> | September 28 <ul style="list-style-type: none"> Q & A on intervention development material Group project planning Current work in the POP-PA Lab |
| Week 5 | |
| October 3 <ul style="list-style-type: none"> Theory Recap 1 <i>Core reading: Rhodes et al. (2019)</i> | October 5 Reading Group 2: Barriers to PA |

| | |
|---|--|
| Week 6 | |
| October 10 <ul style="list-style-type: none"> Theory Recap 2 <i>Core reading: Madison et al. (2021)</i> | October 12 NO CLASS - "Make-up Monday" |
| Week 7 | |
| October 17 <ul style="list-style-type: none"> Program evaluation <i>Core reading: Saunders et al. (2013)</i> | October 19 Reading Group 3: Exercise and depression interventions 1 |
| Week 8 | |
| October 24 <ul style="list-style-type: none"> Behavior change wheel (BCW) and taxonomy <i>Core reading: Olander et al (2013)</i> | October 26 <ul style="list-style-type: none"> Fresh start case study Group project discussions |
| Week 9 | |
| Oct 31 An introduction to motivational interviewing <i>Core reading: Tuccero et al. (2016); Fornier et al., (2020)</i> | Nov 2 Reading Group 4: Exercise and depression interventions 2 |
| Week 10 | |
| Nov 7 – VIRTUAL CANVAS <ul style="list-style-type: none"> Considering group dynamics <i>Core reading: Beauchamp et al. (2015)</i> | Nov 9 <ul style="list-style-type: none"> Behavioral economics: Can we pay people to exercise? <i>Core reading: Mitchell et al (2019)</i> |
| Week 11 | |
| Nov 14 MID-TERM BREAK | Nov 16 Reading Group 5: Mechanisms |
| Week 12 | |
| Nov 21 <ul style="list-style-type: none"> Bridging the gap between research and practice <i>Core reading: Estabrooks & Gyurcsik (2003)</i> | Nov 23 <ul style="list-style-type: none"> Group project tutorials |
| Week 13 | |
| Nov 28 <ul style="list-style-type: none"> Group project tutorials | Nov 30 <ul style="list-style-type: none"> Group project tutorials |
| Week 14 | |
| Dec 5 <ul style="list-style-type: none"> Course summary/Exam prep | |

Core Readings

Week 1

Sallis, J.F., Cervero, R.B., Ascher, W., Henderson, K.A., Kraft, M.K. & Kerr, J. (2006). An ecological approach to creating active living communities. *Annual Reviews of Public Health*, 27, 297-322.

Week 2

Bauman, A., Phongsavan, P., Schoeppe, S., & Owen, N. (2006). Physical activity measurement--a primer for health promotion. *Promotion and Education*, 13(2), 92-103.

Week 3:

Oberste, M., Medele, M., Javelle, F., Lioba Wunram, H., Walter, D., Bloch, W., ... & Zimmer, P. (2020). Physical activity for the treatment of adolescent depression: a systematic review and meta-analysis. *Frontiers in physiology*, 11, 185.

Week 4

Biddle, S.J.H., Mutrie, N., Gorely, T., & Faulkner, G. (2021). Intervention Planning (Chapter 11). *Psychology of Physical Activity Determinants, Well-Being and Interventions* (4th Edition). London: Routledge. This will be posted on canvas.

Week 5:

Rhodes, R. E., McEwan, D., & Rebar, A. L. (2019). Theories of physical activity behaviour change: A history and synthesis of approaches. *Psychology of Sport and Exercise*, 42, 100-109. doi:<https://doi.org/10.1016/j.psychsport.2018.11.010>

Week 6

Madison R Hickingbotham and others, Barriers and facilitators to physical education, sport, and physical activity program participation among children and adolescents with psychiatric disorders: a systematic review, *Translational Behavioral Medicine*, Volume 11, Issue 9, September 2021, Pages 1739–1750, <https://doi.org/10.1093/tbm/ibab085>

Week 7:

Saunders RP, Evans AE, Kenison K, Workman L, Dowda M, Chu YH. Conceptualizing, implementing, and monitoring a structural health promotion intervention in an organizational setting. *Health Promot Pract*. 2013 May;14(3):343-53.

Week 8:

Michie, S. et al. (2013). The Behavior Change Technique Taxonomy (v1) of 93 Hierarchically Clustered Techniques: Building an International Consensus for the Reporting of Behavior Change Interventions. *Ann. behav. med.* 46:81–95. DOI 10.1007/s12160-013-9486-6

Week 9:

Tuccero D, Railey K, Briggs M, Hull SK. (2016). Behavioral Health in Prevention and Chronic Illness Management: Motivational Interviewing. *Primary Care*, 43(2), 191-202. doi: 10.1016/j.pop.2016.01.006.

Week 10:

Beauchamp MR, Harden SM, Wolf SA, Rhodes RE, Liu Y, Dunlop WL, Schmader T, Sheel AW, Zumbo BD, Estabrooks PA. GrOup based physical Activity for oLder adults (GOAL) randomized

controlled trial: study protocol. BMC Public Health. 2015 Jun 27;15:592. doi: 10.1186/s12889-015-1909-9.

Week 11:

Mitchell MS, Orstad SL, Biswas A, et al. Financial incentives for physical activity in adults: systematic review and meta-analysis. British Journal of Sports Medicine Published Online First: 15 May 2019. doi: 10.1136/bjsports-2019-100633

Week 12:

Estabrooks, P.A. & Gyurcsik, N.C. (2003). Evaluating the impact of behavioural interventions that target physical activity: issues of generalisability and public health. Psychology of Sport & Exercise, 4, 41-55.

University Policies

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available on [the UBC Senate website](#).

Inclusivity

Education is a multidisciplinary field that brings together faculty, students and others from diverse academic and personal backgrounds. UBC's Faculty of Education is committed to creating a respectful workplace and learning environment that supports inclusion based on the principles of equity, diversity and social justice in order to create an environment that supports its community members' full participation. The Faculty of Education is committed to providing accessible, usable, and welcoming spaces for faculty, staff, students, and visitors who have disabilities, are members of racialized communities, Indigenous, transgender, two-spirit and gender-diverse people, regardless of their age, sexual orientation, social status, religion, ethno-linguistic, nationality and/or citizenship status.

Faculty of Education courses take place in learning environments that are inclusive of gender identity, gender expression, sex, race, ethnicity, class, sexual orientation, ability, age, etc. Learners and educators expect to be treated respectfully at all times and in all interactions. Non-sexist, non-racist, non-homophobic, non-transphobic and non-heterosexist language is expected in Faculty of Education classes, course content, discussions and assignments.

Please feel welcome to e-mail me your name and pronoun and how you would like these to be used.

Academic Integrity

All UBC students are expected to behave as honest and responsible members of an academic community. Breach of those expectations or failure to follow the appropriate policies, principles, rules, and guidelines of the University with respect to academic honesty

may result in disciplinary action. Plagiarism, cheating or any other form of academic dishonesty will not be tolerated. This especially means that individual assignments must be completed individually. Violations will be taken seriously and will be dealt with according to the University policy regarding academic dishonesty (See Academic Calendar, <http://www.students.ubc.ca/calendar/>). Any transgression could result in failure of the course. It is your responsibility to become familiar with the University of British Columbia's Academic Honesty and Plagiarism Policies, as well as the Student Declaration and the consequences of violating these policies.

Students are responsible for submitting original work and accurately citing (referencing) the work of others within assignments. All submitted assignments become the property of the University of British Columbia and electronic copies of submitted assignments will be stored and used to check against future, present, or past cases of academic misconduct. For group projects, all contributors have joint ownership of the work, and therefore intellectual property rights. Along with joint ownership comes joint responsibility. If group work contains material which has been plagiarised all members of the group will be deemed responsible and will be liable for the same penalty.

Artificial Intelligence (AI)

This section on AI is adapted from samples provided by UBC's Centre for Teaching, Learning and Technology. Recently ChatGPT and related AI have become widely available, making it easy to generate text-based answers to pretty much any question. The quality of those answers varies considerably, depending on many factors. There are notable risks involved in allowing the use of AI tools in your assignments. Please carefully consider these:

First, it is important to note that AI tools are susceptible to errors and may incorporate discriminatory ideas in their output. Citations are often made up or used incorrectly – these errors are still relatively easy to identify. As a student, it is your responsibility to ensure the quality and appropriateness of the work you submit in this course. Second, there is a risk of inadvertently plagiarizing when using these tools. Many AI chatbots and image generators create content based on existing bodies of work without proper citation. UBC's plagiarism policy will apply to all assignment submissions, and "AI did it!" will not excuse any plagiarism. Third, be aware of the dangers of becoming overly dependent on these tools. While they can be incredibly useful, relying on them too much can diminish your own critical thinking and writing skills – for this course at least, this will likely be reflected in your final written exam.

If you use ChatGPT (or a similar tool) to get ideas and/or to generate any text for a draft or final version of any part of an assignment, you must declare that you have used it, with a couple of sentences describing the extent to which it was used, and you must save any generated text from this tool in case it is requested. You will not be penalized for using this tool, but a TA or myself may ask you to provide the generated text in order to help with grading decisions. In this case, your (or your group's) original contributions will be evaluated. Failure to fully declare the use of this tool will be considered "unauthorized" and be deemed plagiarism.

Policy on text-matching software

UBC subscribes to Turnitin, an online system that compares written material with the Web and with other material submitted to its database. Faculty, staff and students can upload submissions and check for duplication of material in other sources and possible plagiarism.

Please note the following dates:

Term Dates: Tuesday September 5th to December 7th, 2023

Last date for withdrawal without a W on your transcript: September 18, 2023

Last date for withdrawal with a W standing on your transcript: October 27, 2023

Exam dates (do not book travel until the date of the final exam is confirmed): December 11 to December 22, 2023

Learning Analytics

Learning analytics includes the collection and analysis of data about learners to improve teaching and learning. This course will be using the following learning technologies: Canvas. Many of these tools capture data about your activity and provide information that can be used to improve the quality of teaching and learning. In this course, I plan to use analytics data to:

- View overall class progress
- Review statistics on course content being accessed to support improvements in the course

Copyright

All materials of this course (course handouts, lecture slides, assessments, course readings, instructor recorded videos etc.) are the intellectual property of the Course Instructor or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline. Students are not permitted to record classes or take photographs during class unless they are granted prior permission from the instructor.

Academic Accommodation for Students with Disabilities

The University's goal is to ensure fair and consistent treatment of all students, including students with a disability, in accordance with their distinct needs and in a manner consistent with academic principles. Students with a disability who wish to have an academic accommodation should contact Access and Diversity without delay.

Course Review

We are continually trying to improve our teaching, and student opinion is an important factor which influences this. At the end of the course every student should fill in a questionnaire. This involves a set of predetermined questions to grade all aspects of the course, as well as the opportunity to add any written comments. Make sure you do this if you want your opinion to be considered.

READING SCHEME STUDY GUIDE**What I must do?**

Every two weeks, I must read ONE article and write a ONE page synopsis.

What's in it for me?**Working in a reading group**

- **Will allow me to cover a larger range of material**
- **Will give me the opportunity to critically examine research with my colleagues**
- **Will give me a one page synopsis of five articles every two weeks which will help me prepare for the exam**

SETTING UP

- 1) Form into groups of 5. Give yourself a name and elect a team leader. The team leader must email me (guy.faulkner@ubc.ca) with the names of those in the group and a group name before September 16th. Groups will be confirmed on this date based on numbers enrolled in the course.
- 2) A week before the designated sessions are due to meet in class time you will meet as a group to coordinate which reading each person will do (other than the identified core reading) from the list of five articles in each topic. Each person then conducts a critical reading of their chosen article and writes a 1-page synopsis. The articles are available through the electronic collections of the library.
- 3) This synopsis, with your name on it, and the name of your group, must be posted on canvas the day before the identified class period (for example, you must post your first synopsis on September 20th) and your group response to set questions the day after (September 22nd in the first example). This will allow for monitoring. Additionally, you will be able to access the synopses of your colleagues. Failure to post a completed synopsis when required will result in a 2% reduction from your final grade. Further information will be provided in class about this process.
- 4) Your group will meet in class to review the synopses and answer set questions. You will share with your group your key interpretations of each reading and discuss any issues that were raised.
- 5) Focus questions will be provided that you must answer as a group based on the readings. The Thursday sessions will provide further opportunities for discussion of the focus questions, and potential implications for the group project.

Writing a Synopsis

It is difficult to lay down any specific structure to help you develop your notes or a 1-page/300 word synopsis of each paper you read. If you have a personal preference already, stick with that, otherwise, consider some of the following ideas. First, to work as a group, each person must develop a synopsis that is of the quality you would

personally want to receive from your colleagues, and that would personally help you in the exam. As such, you need to:

WRITE YOUR NAME and GROUP NAME

Clearly identify the author (date) and all publishing details as used in the course outline

1. Introduction (why?)
 - a) what are the authors trying to settle, prove or demolish? What are they asking?
 - b) How did this issue come up?
 - c) Why bother in the first place – SO WHAT?
2. Methods (how?)
 - a) what was assessed
 - b) how did they do this?
3. Results (what?)
 - a) briefly summarise key results
4. Discussion (general)
 - a) what is discussed? (what theoretical and/or applied implications are derived, what limitations are noted, what recommendations are made for future research?)

FINALLY:

Separate from your synopsis, try to identify and list a few criticisms you may have of the research undertaken. What might have you done differently?

FEEDBACK SUGGESTION:

Don't read the abstract at first! Write your synopsis and compare it with the original abstract of the paper. Your synopsis will be slightly different in that the focus is on being critical of the paper but the original abstract will give you feedback as to whether you are picking up the important elements of the study. This will help prepare you for the exam.

TOPICS AND READINGS

Topic 1 – Physical and Depression – Setting the Scene

Moret C, Isaac M, Briley M. Problems associated with long-term treatment with selective serotonin reuptake inhibitors. *J Psychopharmacol.* 2009 Nov;23(8):967-74. doi: 10.1177/0269881108093582.

Dishman RK, McDowell CP, Herring MP. Customary physical activity and odds of depression: a systematic review and meta-analysis of 111 prospective cohort studies. *Br J Sports Med.* 2021 Aug;55(16):926-934. doi: 10.1136/bjsports-2020-103140. Epub 2021 Jan 5. PMID: 33402345.

Schuch F, Vancampfort D, Firth J, Rosenbaum S, Ward P, Reichert T, Bagatini NC, Bgeginski R, Stubbs B. Physical activity and sedentary behavior in people with major depressive disorder: A systematic review and meta-analysis. *J Affect Disord.* 2017 Mar 1;210:139-150.

Cipriani A. et al. (2016). Comparative efficacy and tolerability of antidepressants for major depressive disorder in children and adolescents: a network meta-analysis. *Lancet.* 2016 Aug 27;388(10047):881-90. doi: 10.1016/S0140-6736(16)30385-3. Epub 2016 Jun 8.

Walker ER, McGee RE, Druss BG. Mortality in mental disorders and global disease burden implications: a systematic review and meta-analysis. *JAMA Psychiatry* 2015;72: 334–341.

Topic 2 – Preferences and Barriers to exercise

Azar, D., Ball, K., Salmon, J., & Cleland, V. J. (2010). Physical activity correlates in young women with depressive symptoms: a qualitative study. *The international journal of behavioral nutrition and physical activity*, 7, 3. <https://doi.org/10.1186/1479-5868-7-3>

Khoubaeva D, Popel N, Omrin D, et al. You can't take a pill to exercise" – qualitative findings from the toward Exercise as Medicine for Adolescents with bipolar disorder (TEAM-BD) study. *Ment Health Phys Act.* 2023. <https://doi.org/10.1016/j.mhpa.2022.100485>.

Pickett, K., T. Kendrick, L. Yardley (2017). A forward movement into life": A qualitative study of how, why and when physical activity may benefit depression. *Mental Health and Physical Activity*, 12 (2017), pp. 100-109, 10.1016/j.mhpa.2017.03.004

Serrander M, Bremander A, Jarbin H, Larsson I. Joy of living through exercise - a qualitative study of clinically referred adolescents' experiences of moderate to vigorous exercise as treatment for depression. *Nord J Psychiatry.* 2021 Nov;75(8):574-581. doi: 10.1080/08039488.2021.1909128. Epub 2021 Apr 22.

Sunesson, E., Haglund, E., Bremander, A., Jarbin, H., & Larsson, I. (2021). Adolescents' Experiences of Facilitators for and Barriers to Maintaining Exercise 12 Months after a Group-Based Intervention for Depression. *International journal of*

environmental research and public health, 18(10), 5427.
<https://doi.org/10.3390/ijerph18105427>

Topic 3 – Exercise Interventions 1

Blumenthal, J. A., Babyak, M.A., Moore, K.A., Craighead, E., Herman, S., et al. (1999). Effects of exercise training on older patients with major depression. *Archives of Internal Medicine* **159**, (19), 2349-2356.

Blumenthal JA, Babyak MA, Doraiswamy PM, Watkins L, Hoffman BM, Barbour KA, Herman S, Craighead WE, Brosse AL, Waugh R, Hinderliter A, Sherwood Exercise and pharmacotherapy in the treatment of major depressive disorder. *Psychosomatic Medicine*. 2007 Sep-Oct;69(7):587-96. Epub 2007 Sep 10.

Dunn, A.L., Trivedi, M.H., Kampert, J.B., Clark, C.G., & Chambliss, H.O. (2005). Exercise treatment for depression: Efficacy and dose response. *American Journal of Preventive Medicine*, 28 (1), 1-8.

Gerber M, Minghetti A, Beck J, Zahner L, Donath L. Sprint Interval Training and Continuous Aerobic Exercise Training Have Similar Effects on Exercise Motivation and Affective Responses to Exercise in Patients With Major Depressive Disorders: A Randomized Controlled Trial. *Front Psychiatry*. 2018 Dec 21;9:694. doi: 10.3389/fpsy.2018.00694. PMID: 30622487; PMCID: PMC6308196.

Stanton, R. & Reaburn, P. (2014). Exercise and the treatment of depression: A review of the exercise program variables. *Journal of Science and Medicine in Sport*, 17(2), 177-182.

Topic 4 – Exercise Interventions 2

Adams DJ, et al. (2015). Exercise as medicine-the use of group medical visits to promote physical activity and treat chronic moderate depression: a preliminary 14-week pre-post study. *BMJ Open Sport Exerc Med*. 2015 Nov 2;1(1):e000036

Carter, T., Guo, B., Turner, D., Morres, I., Khalil, E., Brighton, E., et al. (2015). Preferred intensity exercise for adolescents receiving treatment for depression: a pragmatic randomised controlled trial. *BMC Psychiatry* 15:247. doi: 10.1186/s12888-015-0638-z

Chalder M, et al. (2012). Facilitated physical activity as a treatment for depressed adults: randomised controlled trial. *BMJ*. 2012 Jun 6;344:e2758. doi: 10.1136/bmj.e2758.

Hughes, C. W., Barnes, S., Barnes, C., Defina, L. F., Nakonezny, P., and Emslie, G. J. (2013). Depressed Adolescents Treated with Exercise (DATE): a pilot randomized controlled trial to test feasibility and establish preliminary effect sizes. *Ment. Health Phys. Act* 6, 1–32. doi: 10.1016/j.mhpa.2013.06.006

Khoubaeva, D. et al. (2022). Toward exercise as medicine for adolescents with bipolar disorder (TEAM-BD): A feasibility study. *Mental Health and Physical Activity*, 22, 100441.

Topic 5 – Mechanisms

Brüchle W, et al. (2021). Physical Activity Reduces Clinical Symptoms and Restores Neuroplasticity in Major Depression. *Front Psychiatry*. 2021 Jun 9;12:660642. doi: 10.3389/fpsyt.2021.660642. PMID: 34177647; PMCID: PMC8219854.

Craft, L.L. (2005). Exercise and clinical depression: Examining two psychological mechanisms. *Psychology of Sport and Exercise*, 6(2), pp.151–171.

Krogh J, Rostrup E, Thomsen C, Elfving B, Videbech P, Nordentoft M. The effect of exercise on hippocampal volume and neurotrophines in patients with major depression--a randomized clinical trial. *J Affect Disord*. 2014 Aug;165:24-30. doi: 10.1016/j.jad.2014.04.041. Epub 2014 Apr 23.

Ligeza TS, Maciejczyk M, Wyczesany M, Junghofer M. The effects of a single aerobic exercise session on mood and neural emotional reactivity in depressed and healthy young adults: A late positive potential study. *Psychophysiology*. 2022 Jul 5:e14137. doi: 10.1111/psyp.14137. Epub ahead of print. PMID: 35790005.

Paolucci EM, Loukov D, Bowdish DME, Heisz JJ. Exercise reduces depression and inflammation but intensity matters. *Biol Psychol*. 2018 Mar;133:79-84. doi: 10.1016/j.biopsycho.2018.01.015. Epub 2018 Feb 3. PMID: 29408464.

Appendix 1: Self and Peer Assessment Form

| General Aspect | Specific Aspect | My Contribution | Peer Initials:_____ | Peer Initials:_____ | Peer Initials:_____ | Peer Initials:_____ |
|-----------------------|---|------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| <i>Group Task</i> | Attended all group meetings | | | | | |
| | Maintained contact with other group members | | | | | |
| | Contributed constructively to discussion | | | | | |
| | Asked useful questions | | | | | |
| | Generally was cooperative in group activities | | | | | |
| | Encouraged and assisted other group members | | | | | |
| <i>The Task</i> | Made a genuine attempt to complete all jobs agreed by the group | | | | | |
| | Made an intellectual contribution to the completion of the task | | | | | |
| | Did (at least) their fair share of the work | | | | | |
| | Contributed a significant amount (measured in ideas as well as words) to the final report | | | | | |
| | Read and commented in a timely manner on drafts of the final report | | | | | |
| <i>Overall</i> | Based on your ratings and comments above, this student's contribution overall on this group task. | | | | | |

Rated on a scale: 4: did this very well; 3: did this adequately; 2: did this less than adequately; 1: did this poorly