

MEDITATION, MINDFULNESS AND HEALTH (PSYD33 H3)

COURSE SYLLABUS – FALL 2024

Instructor: Zindel Segal, Ph.D., C.Psych.

Distinguished Professor of Psychology in Mood Disorders,
Graduate Program in Psychological Science, UTSC.

Class Time and Location: Wednesdays 11am to 1pm in Room AC 334

Office Hours and Location: Wednesdays at 10am, Room SY 144

Email: zindel.segal@utoronto.ca

Office Phone: (416) 208-2231

Suggested Textbook: A good general sourcebook available in paperback. Brown KW, Creswell JD, Ryan RM (eds.). Handbook of Mindfulness: Theory, Research, and Practice. Guilford Press. New York, NY. 2015.

Summary

This course is designed to provide students with an overview of the relationship between the practice of meditation and health outcomes in a number of physical (obesity, hypertension, cardiovascular, sleep, pain) and mental health (depression, anxiety, stress) domains. In light of the growing literature on the use of contemplative practices in complementary and alternative medicine, as well as considerable community-based participation in meditation programs and apps, this course will equip students with an empirical foundation for understanding and evaluating work in this area. This seminar course will employ mixed teaching methods that combine conceptual (lectures, selected readings and student led presentations) and experiential (guided in class meditation practice) learning to facilitate engagement with the topic and to deepen understanding of work in this area. We will review the evidence base for the use of meditation across and health and mental health domains, assess the methodological rigour of studies conducted and evaluate the psychological, physiological and neural mechanisms by which meditation and mindfulness-based interventions are thought to exert their salutary effects on health and well-being. The combination of didactic, experiential and presentation-based learning will, at a more general level, provide students with the opportunity to develop skills for effectively delivering written and oral presentations on important issues in the field of meditation and health.

Learning Outcomes

By the end of this course, you will be able to

- Identify differences in attentional foci related to training in concentrated and open awareness practices.

- Evaluate the relative impacts of meditation on physical health and mental health (e.g. obesity, physical activity, sleep, depression, and anxiety).
- Extract key information from contemporary research and review articles in the service of constructing effective oral presentations.
- Assess studies in the field for methodological rigour.
- Describe plausible mechanisms by which meditation may influence health.
- Define some of the primary mindfulness interventions used in health care and community settings (e.g. Mindfulness-Based Stress Reduction, Mindfulness-Based Cognitive Therapy, Compassion Cultivation Training).
- Analyze the strengths and limitations of the major types of mindfulness interventions that are available in public health and educational settings
- Describe first-person experience with mindfulness practices, and how the practices help personal well-being, if at all.

Description of Course Evaluations

Class Participation (15%) will be assessed by weekly attendance (5%) and participation (10%) in classroom discussions.

Group Presentation (35%): Students will be asked to present in groups of three on the impact of meditation on one of the weekly health domains. These presentations will be 45 minutes in length, with each student presenting for appx. 15 minutes and then responding to questions from the class. Students are asked to prepare Powerpoint slides for their presentation. Each student will be responsible for addressing one of 3 core questions relevant to their particular domain.

- 1) **Definitional** – what is the nature of the illness/disorder (prevalence, incidence, scope of public health impact), what is provided as conventional treatment? what type(s) of meditation practice(s) have been studied in this illness/disorder, what does the meditative practice require the participant to do?
- 2) **Mechanistic** – what is the deficit that is intended to be corrected through the practice of meditation? How is this deficit recognized at physiological, psychological and neurobiological levels of analysis? How is meditation assumed to address this deficit?
- 3) **Statistical** – what is the evidence base for the use of meditation with this illness/disorder? Is the evidence base strong (independent randomized controlled trials and meta-analyses), middling (some

randomized studies) or weak (case studies, case series)? Does the evidence support or discourage the use of meditation with this illness/disorder (emphasis on effect sizes and comparison to standard care)? If your aunt/uncle had this disorder would you recommend that she/he practice meditation as part of their care plan?

Each presentation will be followed by a class discussion based upon the themes and findings highlighted in the student presentations. Additional details regarding the requirements and evaluation of the presentation will be provided in class. **Presentation topics and dates will be assigned during class time on September 18th.** Students absent on that date will be informed of their presentation topic and date via email.

Outline of Final Paper (10%) Due Date: October 23, 2024 @ 11:59PM EST

Your outline should be no more than two pages and will be used by *you* to clearly guide the writing of your final research paper. Email your outline (name the file *Last Name, First Name*) as an attachment to: zindel.segal@utoronto.ca Note: This is an *individual* assignment and should not be completed with any collaboration from others, including members from your group presentation.)

Final Paper (40%) Due Date: November 27, 2024 @ 11:59PM EST

The final paper consists of a written report prepared by you (*individually – this is not a group assignment*). Requirements for the paper include no less than 15 and no more than 20 pages (double-spaced, Times New Roman font, 12-point size, not including title page, abstract, or references) and the entire paper (including but not limited to title page, abstract, headings/subheadings, references, tables and figures) must conform to American Psychological Association style as described in the 7th Edition of the Publication Manual of the American Psychological Association. Email your Final Paper (name the file *Last Name, First Name*) as an attachment to: zindel.segal@utoronto.ca

Weekly Topics, Readings and Important Dates

| WEEK | DATE | TOPIC |
|------|--------------|--|
| 1 | September 4 | Course Overview, Questions of Cultural Appropriation, Deracination and the Broad Adoption of Meditation in the West <i>15 Minute Mindfulness Practice</i> <i>Reading: Magee 2016... and bring your curiosity</i> Start to think about your presentation topic |
| 2 | September 11 | Methodologies Used in the Study of Meditation: 1st/3rd Person Perspectives, Adepts and Novices, Superpowers or Everyday Relief? <i>15 Minute Mindfulness Practice</i> <i>Reading: Davidson & Kazniak, 2015</i> Start to think about your presentation topic |
| 3 | September 18 | Evaluating Digital Meditation Apps for Health and Mental Health <i>15 Minute Mindfulness Practice</i> |

| | | |
|----|--------------|---|
| | | <i>Readings: Lau et al., 2020; Segal et al., 2020</i> Presentation topics and dates assigned (please be sure to have a second and even third choice with respect to a topic) |
| 4 | September 25 | The Role of Sensory Awareness in Contemplative Practice <i>Readings: Farb et al., 2015</i> |
| 5 | October 2 | Evaluating Outcomes of Meditation on Stress – Group Present 1 15 Minute Mindfulness Practice <i>Reading: Goyal et al., 2014</i> |
| 6 | October 9 | Evaluating Outcomes of Meditation on Hypertension – Group Present 2 Minute Mindfulness Practice <i>Readings: Levine et al., 2017</i> |
| 7 | October 16 | Evaluating Outcomes of Meditation on Sleep - Group Present 3 15 Minute Mindfulness Practice <i>Readings: Rusch et al., 2019</i> |
| 8 | October 23 | Evaluating Outcomes of Meditation on Chronic Pain – Group Present 4 15 Minute Mindfulness Practice <i>Readings: Hilton et al., 2017</i> Due: Outline of Final Paper |
| 9 | October 30 | Reading Week (no class) |
| 10 | November 6 | Evaluating Outcomes of Meditation on Depression – Group Present 5 15 Minute Mindfulness Practice <i>Readings: Kuyken et al., 2015</i> |
| 11 | November 13 | Evaluating Outcomes of Meditation on Anxiety – Group Present 6 15 Minute Mindfulness Practice <i>Readings: Hoge et al., 2018</i> |
| 12 | November 20 | Evaluating Outcomes of Meditation on Weight Loss and Diet – Gp Present 7 15 Minute Mindfulness Practice <i>Readings: Carrière et al., 2018</i> |
| 13 | November 27 | Evaluating Outcomes of Meditation in the School System – Group Present 8 15 Minute Mindfulness Practice <i>Readings: Amundsen et al., 2020</i> Due: Final Paper |

Respect for Diversity and Inclusive Learning Environment

My goal is to create a positive and constructive learning environment for all students. I view the diversity that students bring to this class as a strength and benefit. It is my intent to present materials in a way that is respectful of gender, sexuality, disability, age, disease status, socioeconomic status, ethnicity, race, and culture. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. Please let me know your name and pronouns if they are different from what is on your student record. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make appropriate arrangements for you.

We will start each class with a brief meditation practice. This is intended to provide you with an experiential understanding of the meditation research we will be discussing. You are not obligated to participate if you prefer not to and there is no element of your grade that will be determined by the in-class meditation.

UTSC is committed to full inclusion of all students. Please inform me early in the term if you may require accommodations or modification of any of course procedures. You may speak with me after class, during office hours, or by appointment. If you need accommodations around online learning or in classroom accommodations, please be sure to reach out to AccessAbility Services for their assistance (ability.uts@utoronto.ca; 416 287-7560).

Weekly Required Readings:

Week 1 – Questions of Cultural Appropriation, Deracination and the Broad Adoption of Meditation in the West

Magee, R. V. (2016). Teaching mindfulness with mindfulness of race and other forms of diversity. In D. McCown, D. Reibel, & M. S. Micozzi (Eds.), *Resources for teaching mindfulness: An international handbook* (pp. 225–246). Springer International Publishing. https://doi.org/10.1007/978-3-319-30100-6_12

Week 2 – Methodologies Used in the Study of Meditation

[Conceptual and methodological issues in research on mindfulness and meditation.](#)

Davidson RJ, Kaszniak AW. *American Psychologist* 2015 Oct;70(7):581-92. doi: 10.1037/a0039512. PMID: 26436310

Week 3 – Outcomes of Digital Meditation Apps

[Android and iPhone Mobile Apps for Psychosocial Wellness and Stress Management: Systematic Search in App Stores and Literature Review.](#)

Lau N, O'Daffer A, Colt S, Yi-Frazier JP, et al. *Journal of Internet Medical Research Mhealth Uhealth*. 2020 May 22;8(5):e17798. doi: 10.2196/17798. PMID: 32357125

[Outcomes of Online Mindfulness-Based Cognitive Therapy for Patients With Residual Depressive Symptoms: A Randomized Clinical Trial.](#)

Segal ZV, Dimidjian S, Beck A, Boggs JM, Vanderkruik R, Metcalf CA, Gallop R, Felder JN, Levy J. *JAMA Psychiatry*. 2020 Jun 1;77(6):563-573. doi: 10.1001/jamapsychiatry.2019.4693. PMID: 31995132

Week 4 – The Role of Sensory Awareness in Contemplative Practice

[Interoception, contemplative practice, and health](#)

Farb, N. Daubenmier, J. Price, C. Gard, T. Kerr, C. Dunn, B. et al. (2015). *Frontiers of Psychology*. Jun 9;6:763. doi: 10.3389/fpsyg.2015.00763. PMID: 26106345

Week 5 – Outcomes of Meditation in Reducing Stress

[Meditation programs for psychological stress and well-being: a systematic review and meta-analysis.](#)

Goyal M, Singh S, Sibinga EM, Gould NF, et al. *JAMA Internal Medicine* 2014 Mar;174(3):357-68. doi: 10.1001/jamainternmed.2013.13018. PMID: 24395196

Week 6 – Outcomes of Meditation in Reducing Hypertension

[Meditation and Cardiovascular Risk Reduction: A Scientific Statement From the American Heart Association.](#)

Levine GN, Lange RA, Bairey-Merz CN, Davidson RJ et al., American Heart Association Council on Clinical Cardiology; Council on Cardiovascular and Stroke Nursing; and Council on Hypertension. *Journal American Heart Association*. 2017 Sep 28;6(10):e002218. doi: 10.1161/JAHA.117.002218. PMID: 28963100

Week 7 – Outcomes of Meditation in Improving Sleep

[The effect of mindfulness meditation on sleep quality: a systematic review and meta-analysis of randomized controlled trials.](#)

Rusch HL, Rosario M, Levison LM, Olivera A, et al. *Annals New York Academy of Sciences*. 2019 Jun;1445(1):5-16. doi: 10.1111/nyas.13996. Epub 2018 Dec 21. PMID: 30575050

Week 8 – Outcomes of Meditation in Reducing Chronic Pain

[Mindfulness Meditation for Chronic Pain: Systematic Review and Meta-analysis.](#)

Hilton L, Hempel S, Ewing BA, Apaydin E, et al. *Annals Behavioral Medicine*. 2017 Apr;51(2):199-213. doi: 10.1007/s12160-016-9844-2. PMID: 27658913

Week 9 – Outcomes of Meditation in Reducing Depression

[Effectiveness and cost-effectiveness of mindfulness-based cognitive therapy compared with maintenance antidepressant treatment in the prevention of depressive relapse or recurrence \(PREVENT\): a randomised controlled trial.](#)

Kuyken W, Hayes R, Barrett B, Byng R, et al. *Lancet*. 2015 Jul 4;386(9988):63-73. doi: 10.1016/S0140-6736(14)62222-4. Epub 2015 Apr 20. PMID: 25907157

Week 10 – Outcomes of Meditation in Reducing Anxiety

[The effect of mindfulness meditation training on biological acute stress responses in generalized anxiety disorder.](#)

Hoge EA, Bui E, Palitz SA, Schwarz NR, et al. *Psychiatry Research*. 2018 Apr;262:328-332. doi: 10.1016/j.psychres.2017.01.006. PMID: 28131433

Week 11- Outcomes of Meditation in Supporting Weight Loss

[Mindfulness-based interventions for weight loss: a systematic review and meta-analysis.](#)

Carrière K, Khoury B, Günak MM, Knäuper B. *Obesity Review*. 2018 Feb;19(2):164-177. doi: 10.1111/obr.12623. Epub 2017 Oct 27. PMID: 29076610

Week 12 – Outcomes of Meditation in Teaching Emotion Regulation in the School System

[Effectiveness and cost-effectiveness of universal school-based mindfulness training compared with normal school provision in reducing risk of mental health problems and promoting well-being in adolescence: the MYRIAD cluster randomised controlled trial.](#)

Kuyken, W. Ball, S. Crane, C. Ganguli, P. Jones, B. Montero-Marin, J. et al. (2022). *Evidence Based Mental Health*. Jul 12;25(3):99-109. doi: 10.1136/ebmental-2021-300396. PMID: 35820992

[Mindfulness in primary school children as a route to enhanced life satisfaction, positive outlook and effective emotion regulation.](#)

Amundsen R, Riby LM, Hamilton C, Hope M, et al. *BMC Psychology*. 2020 Jul 8;8(1):71. doi: 10.1186/s40359-020-00428-y. PMID: 32641161

Masks in the Classroom

While the mask mandate has been paused as of 1 July 2022, the use of medical masks continues to be strongly encouraged at U of T Scarborough in indoor settings where physical distancing is not possible. We ask everyone to respect each other's decisions, comfort levels, and health needs. Masks are available at all building entrances at U of T Scarborough and in all classrooms.

Plagiarism

Please review this website which describes tips on how not to plagiarize:

<http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize>. You will submit your final written report to the turnitin.com site. Turnitin.com is a tool that assists in detecting textual similarities between compared works (i.e., it is an electronic resource that assists in the detection and deterrence of plagiarism). Detailed instructions on setting up your account can be found at <http://www.turnitin.com>.

Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

You must submit an *electronic copy* of your final paper through turnitin.com before midnight on the due date. All submissions midnight or later will be counted as late submissions.

Steps for you to set up your own account and submit papers are described on this web site:

<http://www.teaching.utoronto.ca/teaching/academicintegrity/turnitin/guide-students.htm>

Use of Generative Artificial Intelligence Tools

Students may not use artificial intelligence tools, including generative AI, for writing term papers. However, these tools may be useful when gathering information from across sources and assimilating it for understanding.

Accessibility:

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible. I will work with you and AccessAbility Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC AccessAbility Services staff (located in S302) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations (416) 287-7560 or ability@utsc.utoronto.ca.

Video and Auditory Recording

For reasons of privacy as well as protection of copyright, unauthorized video or audio recording in classrooms is prohibited. This is outlined in the Provost's guidelines on *Appropriate Use of Information and Communication Technology*. Note, however, that these guidelines include the provision that students may obtain consent to record lectures and, "in the case of private use by students with disabilities, the instructor's consent must not be unreasonably withheld."

Academic Integrity:

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's *Code of Behaviour on Academic Matters* (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment.

On tests and exams:

- Using or possessing unauthorized aids.
- Looking at someone else's answers during an exam or test.
- Misrepresenting your identity.

In academic work:

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see <http://www.utoronto.ca/academicintegrity/>).

Department of Psychology Missed Term Work Policy Regarding Grading, Late Assignments and Missed Group Presentations:

Grading: Any complaint about grading on any course evaluation (assignments, group presentation) should be made in writing to Dr. Segal within one week of receiving the graded material and should detail the point of contention.

Late Assignments (including Outline and Final Paper): If you do not have legitimate documentation for a late assignment, 10% of the total value of the assignment will be deducted for each late day (this includes *any time* after the deadline, so please be sure to submit your assignments well in advance of the specified deadlines).

Missed Group Presentation: If you miss your group presentation without legitimate documentation, you will receive a mark of zero. If you provided legitimate documentation for your missed examination you will be given one additional opportunity to make your presentation individually to Dr. Segal during office hours. You must contact Dr. Segal within one week of the missed presentation (or as soon as is *reasonably* possible) to discuss a new date for your make-up presentation.

For missed term work (assignments and term tests) due to illness, emergency, or other mitigating circumstances, please follow the procedures outlined below.

Note:

- The following reasons are not considered sufficient for missed term work: travel for leisure, weddings, personal commitments, work commitments, human error.

- [Missed Final Exams](#) are handled by the Registrar's Office and should be declared on eService.
- Instructors cannot accept term work any later than five business days after the last day of class. Beyond this date, accommodations are only possible via the Registrar's Office [petition process](#).

The email address to submit missed term work accommodation requests in **PSY D33** is:
zindel.segal@utoronto.ca

ILLNESS OR EMERGENCY accommodations:

For missed work due to ILLNESS OR EMERGENCY, complete the following process:

1. Complete the [Request for Missed Term Work Accommodations Form](#).
2. Declare your absence on [ACORN](#) (Profile & Settings > Absence Declaration)
3. Email **both** of the following items to the course email **within 2 business days** of the missed work:
 - the [Request for Missed Term Work Accommodations Form](#)
AND
 - a screenshot of your Self-Declared Absence on ACORN

Note:

- *If you are unable to submit your request within 2 business days, you must still email your instructor within the 2 business day window to explain the nature of the delay. Exceptions to the 2 business day deadline will only be made under exceptional circumstances.*
- *If your absence is declared on ACORN, we do not require any additional supporting documentation (e.g. medical notes) to support your missed term work accommodation request.*

ACADEMIC CONFLICT accommodations:

For missed term work due to an ACADEMIC CONFLICT (e.g. two midterms at the same time):

1. Complete the [Request for Missed Term Work Accommodations Form](#).
2. Take screenshots of your course Quercus pages that demonstrate the conflict.
3. Email the form and screenshots to the course email **at least two weeks (10 business days) before the date of the activity**, or as soon as possible if it was not possible to

identify the conflict earlier. Requests sent after the activity deadline may not be accommodated.

Note:

- *Multiple assignments due on the same day are not considered conflicts. Students are expected to manage their time effectively to meet assignment deadlines.*
- *Back-to-back tests/quizzes are not considered conflicts. Only overlapping activities are conflicts.*
- *Students are responsible for keeping their course timetables conflict-free. Students who register in two courses with overlapping lecture/tutorial/lab schedules will not be accommodated.*

RELIGIOUS CONFLICT accommodations:

For missed term work due to a RELIGIOUS CONFLICT:

1. Complete the [Request for Missed Term Work Accommodations Form](#).
2. Email the form to the course **email at least two weeks (10 business days) before the date of the activity**, or as soon as possible if it was not possible to identify the conflict earlier. Requests sent after the activity deadline may not be accommodated.

ACCESSABILITY SERVICES accommodations:

For missed **TERM TESTS** due to ACCESSABILITY REASONS:

- **Contact your AccessAbility consultant** and have them email the course email detailing accommodations required.

For missed **ASSIGNMENTS** due to ACCESSABILITY REASONS:

- If your desired accommodation is **within the scope** of your Accommodation Letter (e.g. your letter includes “extensions of up to 7 days” and you need 3 days):
 1. Complete the [Request for Missed Term Work Accommodations Form](#).
 2. Email the form ***AND*** your **Accommodation Letter** to the course email specifying how many days extension you are requesting.
- If your desired accommodation is **outside the scope** of your Accommodation Letter (e.g. your letter includes “extensions of up to 7 days” but you need more time than that):

1. **Contact your AccessAbility consultant** and have them email the course email detailing the accommodations required.

Accommodation Procedure:

After submitting your documentation, you will receive a response from your instructor or TA. This form does not guarantee that you will be accommodated. The course instructor reserves the right to decide what accommodations (if any) will be made. Failure to adhere to any aspect of this policy may result in a denial of your request. **You are responsible for checking your official U of T email and Quercus course announcements daily**, as accommodations may be time-critical.

For missed assignments, **do not wait for the instructor's response to resume work on your assignment**. Extensions may be as short as one business day, depending on the nature of the illness/emergency. Complete your assignment as soon as you're able, and email it to your instructor.

For an **anticipated absence** (e.g. a scheduled surgery or an illness with a prolonged recovery period), if you would like to request accommodations in advance, submit a [Verification of Illness Form](#) completed by your doctor AND the [Request for Missed Term Work Accommodations Form](#) to the course email. Absences can be declared up to 14 days into the future on ACORN.

Missed Accommodations

If an accommodation is granted but a continued illness/emergency prevents you from meeting its requirements, you must repeat the missed term work procedure to request additional accommodations. **Please make it clear in your subject line that you are requesting a second accommodation**. E.g. If you are given an extension but are still sick and need more time, or if you miss a make-up term test, you must submit *another* [Request for Missed Term Work Accommodations Form](#) and declare your extended absence on ACORN. *Note: In the case of a missed make-up test, an opportunity to write a second make-up test may not necessarily be provided.

Medical Documentation: Any medical documentation that you provide must indicate the date(s) that you needed to be excused from course work, which must include the date of the presentation and/or assignment(s) that you missed. You are advised to see your physician within one day of the missed examination. Only documentation from a doctor registered with the College of Physicians and Surgeons of Ontario will be accepted (as per the UTSC Medical Certificate). You must contact Dr. Segal within one week of a missed presentation or assignment (or as soon as is reasonably possible).

The form for medical documentation can be found at the following link:

http://www.utsc.utoronto.ca/~registrar/resources/pdf_general/UTSCmedicalcertificate.pdf

Please Note: The UTSC Medical Certificate must be signed by a registered member in good standing with the College of Physicians and Surgeons of Ontario.

Grade Scales and Meaning of Grades

| NUMERICAL MARKS | LETTER GRADE | GRADE POINT VALUE |
|-----------------|--------------|-------------------|
| 90 - 100% | A+ | 4.0 |
| 85 - 89% | A | 4.0 |
| 80 - 84% | A- | 3.7 |
| 77 - 79% | B+ | 3.3 |
| 73 - 76% | B | 3.0 |
| 70 - 72% | B- | 2.7 |
| 67 - 69% | C+ | 2.3 |
| 63 - 66% | C | 2.0 |
| 60 - 62% | C- | 1.7 |
| 57 - 59% | D+ | 1.3 |
| 53 - 56% | D | 1.0 |
| 50 - 52% | D- | 0.7 |
| 0 - 49% | F | 0.0 |

Please note that assignment of an “A” grade in this course signifies that your work suggests that you are prepared for post-graduate work.