The University of Western Ontario
School of Health Studies
Health Sciences **4730F**
Disease, Disability and Function in Advanced Old Age

Instructor: Dr. Savundranayagam Fall 2013
Email: msavund@uwo.ca
Office Room Number: HSB219
Office Hours: Tuesday, 2:30-4:30 pm
Course Meeting Times: Tuesday (1:30-2:30pm), Thursday (12:30-2:30pm)
Location: HSB-9

Prerequisite(s): Health Sciences 3701A/B.

Prerequisite Checking

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites. Please refer to the Western's current Academic Calendar at www.westerncalendar.uwo.ca.

Course Information

Advanced old age brings many unique challenges. This course examines the alteration in physiological function associated with advancing age and the complex interaction of disease, disability and function in advanced old age. Students will examine complexities associated with aging such as frailty, functional levels and thresholds, independence-dependence tipping points, mediators of dependency and strategies to optimize health and function with advancing age.

Learning Outcomes: Participation in this course will enable students to:

1. Define frailty and identify key risk factors to health and independent living among older adults.
2. Discuss the impact of multiple co-morbid conditions on quality of life for older adults.
3. Examine and critically appraise interventions that maintain, restore, and optimize an elder's level of function and wellness in the presence of chronic illness and physiological decline.
4. Demonstrate sensitivity to the threat to dignity and personhood which dependency and frailty may impose to older adults.

Course Materials

- Lustbader, W. (1991). *Counting on Kindness: The Dilemmas of Dependence* (2nd Ed.) New York: The Free Press.

Required Readings (on OWL/Sakai) are listed within the table of readings and assignments.

Session: Date	Readings/Assignments
1: Sept. 10	**Course Overview** **Defining terms: Frailty, Disability, Co-morbidity** • Fried, L.P., Ferrucci, L., Darer, J., et al. (2004). Untangling the concepts of disability, frailty, and comorbidity: Implications for improved targeting and care. *Journals of Gerontolology*, *59*(3), M255-M263. • Fried, L.P., Tangen, C.M., Walston, J., Newman, A.B., Hirsch, C., Gottdiener, J., et al. (2001). Frailty in older adults: evidence for a phenotype. *Journals of Gerontology, 56*, M146–M156. **Supplemental Reading** Fries, J.F. (2005). Aging, frailty, and the compression of morbidity. In Carey, J, Robine J.M., Michel J.P., Christen .Y, *Longevity and frailty* (pp. 107–17). Heidelberg: Springer Verlag.
2: Sept. 12	**Library Instruction** • Selecting and assessing peer-reviewed and empirical articles
3: Sept. 17	**Defining terms: Frailty, Disability, Co-morbidity (con't)** **Controversies about the concept of frailty and disability** • Bergman, H., Ferrucci, L., Guralnik, J. & Hogan, D.B. 2007. Frailty: An emerging research and clinical paradigm-issues and controversies. *Journals of Gerontology,* 62A, (7): 731-7. • Freedman, V. (2009). Adopting the ICF language for studying late-life disability: a field of dreams? *Journals of Gerontology, 64,* M1172-M1174.
4: Sept. 19	**Models and Overview: Disablement, International Classification of Functioning, Disability and Health** • Albert, S. M., & Freedman, V. A. (2010). Disability and functioning. In Albert, S. M., & Freedman, V. A. (Eds.) *Public health and aging : maximizing function and well-being* (pp. 147-188). New York: Springer.
5: Sept. 24	**Life course and Psychosocial determinants of frailty** • Michel, J. P. Bonin-Guillaume, S., Gold, G., & Herrmann, F. (2005). Cognition and frailty: Possible interrelations. In Carey, J., Robine, J.M., Michel, J.P., & Christen, Y., Eds. *Longevity and frailty* (pp. 119-124). Heidelberg: Springer Verlag. • Ávila-Funes, J.A., Amieva, H., Barberger-Gateau, P., Le Goff, M.,

	Raoux, N,. Ritchie, K., et al. (2009). Cognitive impairment improves the predictive validity of the phenotype of frailty for adverse health outcomes: the three-city study. *Journal of the American Geriatrics Society, 57*, 453–61. • Kuh, D. et al. (2007). A life course approach to healthy aging, frailty, and capability. *Journals of Gerontology*, *62*A: 717–21. • Freedman, V.A., Martin, L.G., Schoeni, R.F., & Cornman, J.C. (2008). Declines in late-life disability: the role of early- and mid-life factors. *Social Science and Medicine, 66*(7), 1588-1602.
6: Sept. 26	**Life course and Psychosocial determinants of frailty (con't)** **Measurement/Assessment** • Studenski, S., Hayes, R.P., Leibowitz, R.Q., Bode, R., Lavery, L., Walston, J., et al. (2004). Clinical global impression of change in physical frailty: Development of a measure based on clinical judgment. *Journal of the American Geriatrics Society, 52*, 1560–1566. • Rockwood, K., Song, X., MacKnight, C., et al. (2005). A global clinical measure of fitness and frailty in elderly people. *Canadian Medical Association Journal*, *173*(5), 489-495. • Raji, M.A. "Geriatric Assessment." *Encyclopedia of Health & Aging.* 2007. *SAGE Publications.*
7: Oct. 1	**Literature Review Topics Due & One-on-one consultations**
8: Oct. 3	**Literature Review: One-on-one consultations**
9: Oct. 8	**Measurement/Assessment: Functional Ability** Quinn, T. J., McArthur, K., Ellis, G., Stott, D. J. (2011). Functional assessment in older people. *British Medical Journal, 343*(7821), 4681-4688. • **Katz Index of Independence in Activities of Daily Living** Katz, S., Downs, T.D., Cash, H.R., Grotz, R.C. (1970). Progress in development of the index of ADL. *Gerontologist*, *10*(1), 20-30. • **Lawton Instrumental Activities of Daily Living (IADL) Scale** Lawton, M. P., & Brody, E. M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *Gerontologist, 9*, 179–186. **Measurement/Assessment: Cognitive Ability** • **Standardized Mini-mental Status Examination** Molloy, D. W., & Standish, T. I. M. (1997). A Guide to the Standardized Mini-Mental State Examination. *International Psychogeriatrics, 9* , 87-94 doi:10.1017/S1041610297004754 • **Mini-Cog** Borson, S., Scanlan, J. M., Brush, M., Vitaliano, P., & Dokmak, A. (2000). The Mini-Cog: A cognitive 'vital signs' measure for dementia screening in multi-lingual elderly. *International Journal of Geriatric*

	Psychiatry, 15, 1021–1027. • **Montreal Cognitive Assessment (MoCA)** Nasreddine, Z. S., Phillips, N. A., Bedirian, V., Charbonneau, S., Whitehead, V., Collin, I., Cummings, J. L., and Chertkow, H. 2005. The Montreal Cognitive Assessment, MoCA: A brief screening tool for mild cognitive impairment. *Journal of the American Geriatrics Society, 53*(4), 695-99. • **Review article** Ismail, Z., Rajii, T. K., & Shulman, K. I. (2010). Brief cognitive screening instruments: an update. *International Journal of Geriatric Psychiatry*, *25*, 111-120.
10: Oct. 10	**Measurement/Assessment: Cognitive Ability (con't)** **Measurement/Assessment: Pain** • Tabloski, P. A (2010). Pain Management. In Tabloski, P. A (Ed.) *Gerontological nursing* (262-286). Upper Saddle River, N.J. : Pearson Prentice Hall. • Herr, K. (2011). Pain assessment strategies in older patients, *Journal of Pain, 12*(3), S3 - S13.
11: Oct. 15	**Midterm Quiz**
12: Oct. 17	**Measurement/Assessment: Depression** • **Geriatric Depression Scale** Yesavage, J. A., Brink, T. L., & Rose, T. L., Lum, O., Huang, V., Adey, M. B., & Leirer, V. O. (1983). Development and validation of a geriatric depression screening scale: A preliminary report. *Journal of Psychiatric Research*, *17*, 37-49. • **CESD** Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement,* 1(3), 385-401.
13: Oct. 22	**Thresholds and Tipping Points** • Fried, L. P., Xue, Q. P., Cappola, A. R., Ferrucci, L. Chaves, P., Varadhan, R. et al., (2009). Nonlinear multisystem physiological dysregulation associated with frailty in older women: Implications for etiology and treatment. *Journals of Gerontology, 64A*(10), 1049-1057. • Rivera, J. A**,.** Fried L. P., Weiss, C. O., & Simonsick, E. M. (2008). At the tipping point: Predicting severe mobility difficulty in vulnerable older women. *Journal of the American Geriatrics Society*, 56(8), 1417-23.
14: Oct. 24	**Findings from The Berlin Aging Study** • Baltes, P. B., & Smith, S. (2003). New frontiers in the future of aging: From successful aging of the young old to the dilemmas of

	the fourth age. *Gerontology,* 49(2), 123-35. **Transitions** • Gill, T.M., Gahbauer, E.A., & Allore, H.G., Han, L. (2006). Transitions between frailty states among community-living older persons. *Archives of Internal Medicine*, *166*, 418-423.
15: Oct. 29	**Frailty in Context: Communication in Nursing Homes** • Ryan, E. B., Hummert, M. L., & Boich, L. (1995). Communication predicaments of aging: Patronizing behavior toward older adults. *Journal of Language Social Psychology*, *14*, 144–166. • Baltes, M. & Wahl, H-W. (1996). Patterns of communication in old age: The dependency-support and independence-ignore script. *Health Communication, 8*, 217–232. • Savundranayagam, M. Y., Ryan, E. B., Anas, A., & Orange, J. B. (2007). Communication and dementia: Staff perceptions of conversational strategies. *Clinical Gerontologist*, *31*(2), 47 - 63. • Williams, K., Kemper, S., Hummert, M.L. (2003) Improving nursing home communication: An intervention to reduce elderspeak. *The Gerontologist*, *43*(2):242–247.
16: Oct. 31	**----------FALL BREAK----------**
17: Nov. 5	**Preventive Interventions** Gill, T.M., Baker, D.I., Gottschalk, M., et al. (2002). A program to prevent functional decline in physically frail elderly persons who live at home. *New England Journal of Medicine*, *347*(14), 1068-1074.
18: Nov. 7	**Disability and Functioning from the Perspective of Older Adults** • Lustbader, W. (1991). *Counting on Kindness: The Dilemmas of Dependence* (2nd Ed.) New York: The Free Press. NOTE: All students must be present to discuss this reading; the entire session will be based on student discussion.
19: Nov. 12	**Interventions** • Fairhall, N., Aggar, C., Kurrle, S.E., Sherrington, C., Lord, S., Lockwood, K., et al. (2008). Frailty Intervention Trial (FIT). *BMC Geriatrics*, *8*, 27-37. • Fairhall, N., Langron, C., Sherrington, C., Lord, S. R., Kurrle, S. E., Lockwood, K. et al. (2011). Treating frailty: A practical guide. *BMC Medicine*, *9*,83-89. • Binder, E.F., Schechtman, K.B., Ehsani, A.A., Steger-May, K., Brown, M., Sinacore, D.R., et al. (2002). Effects of exercise training on frailty in community-dwelling older adults: Results of a randomized, controlled trial. *Journal of the American Geriatrics Society*, *50*, 1921–1928.
20: Nov. 14	**Papers due** & Presentation (5 individual presentations)
21: Nov. 19	**Gerontological Society of America (GSA) conference: no class**

22: Nov. 21	**GSA: no class**
23: Nov. 26	Presentation (3 individual presentations)
24: Nov. 28	Presentation (5 individual presentations)
25: Dec. 3	Presentation (3 individual presentations)
26: Dec. 5	Presentation (5 individual presentations)

Evaluation

Class attendance is mandatory. There will one midterm quiz and one final examination. These exams will be comprised of multiple choice, true/false, and short answer questions. The content of examinations will be facilitated through lecture material and assigned readings. In addition, students will write a literature review and present findings. Instructions are provided in the appendix (see page 8).

Paper = 30% (due Nov. 14, 2013)
Presentation = 15% (scheduled between Nov. 14 and Dec. 5, 2013)
Participation/Attendance = Participation during class, especially regarding readings and presentations, will be worth 5% of your final grade. In addition to presenting, you will be expected to ask questions related to presentations by your colleagues in class.
Midterm Quiz = 20% (Oct. 15, 2013)
Final Cumulative Examination = 30% (to be scheduled between December 8 to 19, 2013)

Guidelines for Re-marking Assignments and Exams:

1. If there are concerns regarding grading, the entire assignment or exam will be remarked to ensure fairness.
2. Grades could either increase or decrease depending on remarking.
3. Re-marking can only be requested one week after grades are posted.
4. Students must submit a detailed explanation (1 page) of why their assignment warrants a reexamination.

Late Submissions: Late assignments and/or exams will be "down graded" by 10% per 24 hours past due date/time. Assignments more than one week late will not be accepted without prior approval for emergency situations. Missing exams without prior approval or notification of emergency situations will result in an automatic zero.

Special Note for Missed Midterm Quiz: If you miss the midterm quiz, there will be no make-up quiz. Your final grade will be calculated separately. You will still have to provide documentation.

Note: Examinations must be taken on the day and time they are scheduled unless other arrangements are made due to health reasons that can be fully documented according to the requirement of the School of Health Sciences program and Western University. If an examination is missed without appropriate documentation as required, no make-up examination will be offered and the student will forfeit that portion of the exam weighting. All approvals for make-up exams must be processed through the School of Health Studies; once approved, they will notify the instructor as to whether a make-up exam is to be scheduled.

Statement on Use of Electronic Devices

Electronic devices will not be allowed during tests and examinations, with the exception of a computer for online tests/exams. For final exams, use of communication equipment (e.g., cell phones) is prohibited.

Student Code of Conduct

The purpose of the Code of Student Conduct is to define the general standard of conduct expected of students registered at The University of Western Ontario, provide examples of behaviour that constitutes a breach of this standard of conduct, provide examples of sanctions that may be imposed, and set out the disciplinary procedures that the University will follow. For more information, visit http://www.uwo.ca/univsec/board/code.pdf.

English Proficiency for the Assignment of Grades

Visit the website http://www.uwo.ca/univsec/handbook/exam/english.pdf.

Accommodation for Medical Illness or Non-Medical Absences

http://www.uwo.ca/univsec/handbook/appeals/accommodation_medical.pdf

The University recognizes that a student's ability to meet his/her academic responsibilities may, on occasion, be impaired by medical illness. Illness may be acute (short term), or it may be chronic (long term), or chronic with acute episodes. The University further recognizes that medical situations are deeply personal and respects the need for privacy and confidentiality in these matters. However, in order to ensure fairness and consistency for all students, academic accommodation for work representing 10% or more of the student's overall grade in the course shall be granted only in those cases where there is documentation indicating that the student was seriously affected by illness and could not reasonably be expected to meet his/her academic responsibilities.

A UWO Student Medical Certificate (SMC) is required where a student is seeking academic accommodation. This documentation should be obtained at the time of the initial consultation with the physician or walk-in clinic. An SMC can be downloaded under the Medical Documentation heading of the following website: https://studentservices.uwo.ca/secure/index.cfm.

Documentation is required for non-medical absences where the course work missed is more than 10% of the overall grade. Students may contact their Faculty Academic Counselling Office for what documentation is needed.

Whenever possible, students who require academic accommodation should provide notification and documentation in advance of due dates, examinations, etc. Students must follow up with their professors and their Academic Counselling office in a timely manner. Documentation for any request for accommodation shall be submitted, as soon as possible, to the appropriate Academic Counselling Office of the student's Faculty of registration. For BHSc students, you may go to the School of Health Studies Office in HSB room 222.

Scholastic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website:
http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf .

Additionally,

1. All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).
2. Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Support Services

There are support services around campus and these include, but are not limited to:

1. Student Development Centre -- http://www.sdc.uwo.ca/ssd/
2. Student Health -- http://www.shs.uwo.ca/student/studenthealthservices.html
3. Registrar's Office -- http://www.registrar.uwo.ca/
4. Ombuds Office -- http://www.uwo.ca/ombuds/

Appendix I: Paper: Evidenced Based Interventions

Due Dates:
Oct. 1, 2013: Topic (150 words) + list 3 empirical, peer-reviewed articles in APA format
November 14, 2013: Final Paper
Where: All portions of this assignment are due on OWL/Sakai at **1:30 p.m.**
Length: 2500 words (excluding references); include word count in your submission
30% of grade (45 points)

Choose a health profession that you would like to pursue (e.g., researcher, medical doctor, physiotherapist, occupational therapist, speech-language pathologist, nurse, social worker, nursing home administrator, etc.). In your future health profession, you are responsible for ensuring that your peers in your department/agency/hospital/clinic are aware of recent (from 2001) research affecting frail older adults. You decide to focus on intervention research. Choose a specific condition (disease) and its associated co-morbid conditions and conduct a literature review on existing interventions that address frailty (directly or indirectly).

Note: The instructor will encourage you to submit your assignment for publication if your work is original and of high quality.

A literature review must:

- Be organized around and related directly to a guiding concept which can include the following: **5 points**
    - Research objective (be specific)
    - Problem you are discussing (be specific)
- Include relevant theoretical perspectives discussed in class or discussed in the gerontological literature. **5 points**
    - Be sure to clearly explain how theoretical perspectives apply to your topic.
    - Outline key concepts, factors, or variables that apply to your topic.
- Synthesize research results into what is and is not known: **10 points**
    - Convey what knowledge and ideas have been established on a topic.
    - Discuss the relationships between these key concepts, factors or variables.
    - Discuss strengths and weaknesses of the established body of knowledge
- Identify areas of controversy in the literature: **10 points**
    - Are there inconsistencies or limitations in the current literature?
    - What views need to be (further) tested?
    - What evidence is lacking, inconclusive, contradictory or too limited?
- Formulate questions that need further research pertaining to your health profession of choice: **10 points**
    - Explain why the problem or issue requires further study.
    - How will further research on your topic influence practice, policy, and/or benefit older adults?
- APA format, 15-20 appropriate references (empirical studies, peer-reviewed) **5 points**

- Inappropriate references include textbooks, non-empirical articles (e.g., commentary or opinion articles), online non-peer reviewed publications, self-published sources, and popular books/articles (such as TIME magazine). Peer-reviewed research articles must make up at least 80% of the total references in your paper. Review articles can be useful and appropriate to include, as long as they are not the majority of your references. All sources must be cited using American Psychological Association (APA) format. Please access the following link for more information on properly citing sources: http://www.wisc.edu/writing/Handbook/American_Psychological_Association_(APA)_Documentation_M.pdf

Evidence-Based Interventions Paper – Scoring Rubric

Category	A: Exemplary	B: Solid	C: Competent	F: Insufficient
Objective	Objective is clearly stated and appropriately focused, prompting a "So what?" exploration.	Objective is clearly stated, but focus could have been sharper or more compelling.	Objective does not lend itself to readily available answers.	No statement of objective for research.
Analysis	Student carefully analyzes the information collected and draws appropriate and inventive conclusions supported by evidence.	Student shows good effort in analyzing the evidence collected.	Conclusions could be supported by stronger evidence. Level of analysis is superficial.	Conclusions are little more than restatements of information or not adequately supported by evidence.
Content Integration	The paper smoothly integrates the writer's ideas, "quotable" quotations, and paraphrasing.	The paper relies more on the ideas from the research than on the writer's response even though quotes are "quotable" and paraphrasing is solid.	The paper demonstrates little of the writer's own ideas in response to the research, relying on quotes poorly connected.	The paper leans heavily toward stringing together quoted material without thoughtfully responding to it.
Organization	The introduction,	Organizational	Organizational	The

Category	A: Exemplary	B: Solid	C: Competent	F: Insufficient
	body, and conclusion are organized and presented in such a clear and creative way that the reader moves easily through the text.	structure is strong enough to move the reader through the text without undue confusion.	structure is predictable without flair in either the introduction or conclusion.	information appears to be disorganized.
Mechanics	No grammatical, spelling or punctuation errors.	Almost no grammatical, spelling or punctuation errors.	A few grammatical, spelling or punctuation errors.	Many grammatical, spelling or punctuation errors.
Sources/APA	Information comes from empirical studies and critical readings related to the problem. APA format is error free.	Some sources are of questionable value (e.g., website info). Almost no errors with APA format.	Student displays minimal effort in selecting quality sources. A few errors with APA format.	Sources are not compelling in quality. Many errors with APA format.

Grading Scheme & Criteria: Conference Presentation

Total Points: 20; Due on OWL/Sakai 24 hours prior to presentation time.
Each student will prepare a **12-minute conference** presentation based on the results of your intervention review paper. The goals of conference presentations are to show that you can integrate key course concepts, assess key findings and share them in a concise and creative manner. Options include video clips, case scenarios, handouts, etc. If you require audiovisual equipment, please let me know **one week in advance** so that I can make the necessary arrangements**. Powerpoint slides of the presentation must be submitted on OWL/Sakai 24 hours prior to presenting.**

The grading scheme for the presentation includes the process (preparation) and actual presentation delivery.

1. Organization (0-5)	• Presented information in logical, interesting sequence which audience could follow. • Notified instructor about special arrangements.
2. Subject Knowledge (0-5)	• Answered class questions with explanations and elaboration. • Integrated presentation content and additional readings into course concepts.

3. Creativity (0-5)	• Appropriately used creative formats to engage the class and encourage discussion. * Note: the use of formats such as video clips just for the sake of creativity will not necessarily earn you points. Each component of the presentation must serve a purpose.
4. Delivery (0-5)	• Maintained eye contact with audience • Used clear voice • Did not rely heavily on notes • Stuck to the time limit