



Department of Family Relations and Applied Nutrition

NUTR*4120: Applied Clinical Skills Winter 2016 COURSE OUTLINE

Instructor

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Contact Info

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Office Hours

Visits are welcomed by appointment

Course Day, Time and Location

Mondays, 11:30AM-2:20PM, MINS 037 (in the basement)

Feel free to bring your lunch to class.
We can't expect you to fast over lunch
hour...hardly conducive to learning.



Course Description

This is a laboratory-based course which will enable you to gain skills in independently completing nutritional assessments and care plans of individuals and groups as you would be expected to do as nutrition professionals. You will comprehensively assess nutritional status (with an emphasis on nutrition-focused physical examination) and apply knowledge of human physiology, pathophysiology, medical terminology and nutritional assessment to diagnose nutritional problems/issues.

Prerequisites

NUTR*4010 (Assessment of Nutritional Status)

NUTR*4040 (Clinical Nutrition II)

Learning Outcomes

1. To demonstrate practical skills used in clinical settings, with an emphasis on patient communication and nutrition-focused physical examination.
2. To integrate findings from a nutrition-focused physical examination (NFPE) with those from other components of a nutritional assessment.
3. To demonstrate proficiency in use of medical terminology and short forms/abbreviations.
4. To reflect on learning, including challenges and accomplishments, in conducting assessments on, and interacting with, simulated patients.

Evaluation

Learning activity	Associated Learning Outcome	Weighting	Date Due*
Quizzes (two at 5% each)	1,3	10%	Jan 18, 25
Anthropometry and BIA lab report	1,3	25%	Feb 22
Written reflections <ul style="list-style-type: none">• Four mini-reflections (2.5% each)• One meta-reflection (15%)	4	25%	Mini-reflections due Feb 5, Mar 4, Mar 18, Apr 1 Meta-reflection due Apr 4
Nutritional assessment integration assignment	2,3	25%	Apr 8
Participation and professionalism	1	15%	Throughout
Total		100%	

*All written assignments are due by 5PM in Dropbox. Quizzes are done in class.

Resource – Strongly Recommended

NUTR*4120 course pack, available at campus bookstore. Units included in the course pack are also uploaded to CourseLink. You may prefer to have the consolidated course pack so that you can flip back and forth as needed during class and labs.

CourseLink

You will find each unit of this course pack uploaded under the “Content” tab, where you will also find two exemplars of the integration assignment. Use Dropbox to upload your assignments. The discussion board will also be available.

My Responsibilities

I will guide you as skillfully as possible through the practical application of various clinical skills. I will try to promote a positive, respectful and professional student-centered learning environment that will progressively challenge you to develop your clinical skills in a variety of situations. I will try my best to teach you to think like a clinician.

Your Responsibilities

- This is a hands-on class. It is not a spectator sport. Come to classes and labs prepared to actively participate.
- Professionalism. There are sensitive components to a physical examination. Everyone will have a different comfort level with this process, as patient and also as clinician. No giggling, eye-widening, pointing, quizzical looks, making fun of anyone for any reason, inappropriate comments, etc., while conducting any aspect of any physical exam on anyone. This applies to performing assessments on your NUTR*4120 peers and simulated patients, and having assessments performed on you.

Your Responsibilities (cont'd)

- Confidentiality. As is expected when working in a clinical setting (i.e., hospital), you are expected to maintain strict confidentiality about your “patients” (i.e., peers and standardized patients). It is unacceptable to tell anyone anything of an intimate nature about any of your peers or simulated patients. (e.g., “I measured Susie’s triceps skinfold thickness in lab today. Wow, is she ever skinny.”). **100% confidentiality is expected 100% of the time. NO PHOTOGRAPHY.**
- Hygiene. Wash your hands thoroughly with warm soapy water before conducting a physical examination. Clean the ear pieces of a stethoscope with an alcohol swab before inserting into your ears (for your protection), and the bell/diaphragm of the stethoscope before touching a patient (for the patient’s protection). No perfume or cologne. The lab, like many hospitals, is a scent-free zone.

NOTE

Much of this course involves nutrition-focused physical examination, including Subjective Global Assessment, skin assessment, anthropometric assessment, dysphagia screening, and abdominal assessment. These units require physical contact between you and your peers and simulated patients. Relevant body parts include the arms, waist, hips, legs (knees, ankles, feet), abdomen, face and throat.

IF YOU ARE NOT COMFORTABLE HAVING THESE BODY PARTS TOUCHED, OR TOUCHING THESE BODY PARTS ON OTHER PEOPLE, THEN THIS COURSE IS NOT FOR YOU.



Policies

When You Are Unable to Meet a Course Requirement

Life happens to all of us. If and when you find yourself unable to meet a course requirement due to illness or compassionate reasons, please advise me in writing (email is fine). Where possible, this should be done in advance of the missed requirement, but otherwise, just as soon as possible after the due date, and **certainly not longer than one week later**. Appropriate written documentation of your inability to meet the course requirement is required. Otherwise, late assignments will incur a 10% (out of 100) per day (including weekend days) penalty.

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. Rules pertaining to academic misconduct can be found in the 2015-2016 Undergraduate Calendar and on the following website:

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not you intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse you from responsibility for verifying the academic integrity of your work before submitting it. If you are in any doubt as to whether an action on your part could be construed as an academic offence, consult with a faculty member or faculty advisor.

Schedule

Week	Date	Topic
1	Jan 11	<ul style="list-style-type: none"> • Course introduction and overview • Medical terminology and charting
2	Jan 18	<ul style="list-style-type: none"> • Quiz on medical terminology and charting • Patient interaction and communication: Part I
3	Jan 25	<ul style="list-style-type: none"> • Quiz on patient interaction and communication • Nutrition-focused physical examination and Subjective Global Assessment (SGA)
4	Feb 1	<ul style="list-style-type: none"> • SGA with simulated patients • Mini-Reflection #1 due Fri Feb 5
5	Feb 8	Anthropometry and BIA lab (dress comfortably and bring a calculator). Half the class does lab from 11:30-12:50; the other half from 12:55-2:20PM
~ READING WEEK - WOOHOO ~		
6	Feb 22	<ul style="list-style-type: none"> • Anthropometry and BIA lab report due • Skin assessment – background and practice on each other
7	Feb 29	<ul style="list-style-type: none"> • Skin assessment with simulated patients (Mini-Reflection #2 due Fri Mar 4) • Integrating dietary, biochemical, anthropometric, and clinical/physical assessments. Discussion about integration assignment.
8	Mar 7	<ul style="list-style-type: none"> • Dysphagia screening– background and practice on each other
9	Mar 14	<ul style="list-style-type: none"> • Dysphagia screening with simulated patients • Mini-Reflection #3 due Fri Mar 18
10	Mar 21	<ul style="list-style-type: none"> • Abdominal assessment – background and practice on each other
11	Mar 28	<ul style="list-style-type: none"> • Abdominal assessment with simulated patients • Mini-Reflection #4 due Fri Apr 1
12	Apr 4	<ul style="list-style-type: none"> • Meta-Reflection due • Patient interaction and communication: Part II • Discussion about integration assignment
	Apr 8	Integration assignment due

Assignments

Assignments are described on the following pages. They are due by 5PM in CourseLink Dropbox on their respective due dates. Late assignments will incur a 10% (out of 100) per day (including weekend days) penalty, unless accompanied by written documentation such as a medical note.

Quizzes (10% of final grade; Jan 18, Jan 25)

There are two quizzes, one on medical charting and terminology and the other on patient interaction and communication. They are worth 5% each.

Participation and Professionalism (15% of final grade, throughout semester)

This is a small class. Everyone's participation in class and labs is needed and appreciated to make the course a success. The participation grade is based on the frequency and quality of your oral participation in class (that which is considered "traditional" participation in a university course), as well as your active, professional and respectful participation in lab. The latter includes performing nutrition-based physical exams on your peers and simulated patients, and having nutrition-based physical exams performed on you by your peers. Inappropriate or unprofessional behaviour (i.e., giggling, teasing a peer or simulated patient, etc.) in the lab, and breaches in confidentiality about physical findings of your peers or simulated patients, will be reflected in your participation grade.

If you are absent from a class or lab, I would appreciate knowing why.

Please – just like at the movies – turn your cell phones off in class and in lab. No texting. No Facebooking. No Snapchatting. No Instagramming. No Pinteresting. No emailing. **No photography.** Thanks.

Anthropometry and BIA Lab Report (25% of final grade, due Feb 22 by 5PM in Dropbox)

Purpose of Anthropometry and BIA Lab Report

The purpose of this assignment is to interpret your personal results from various anthropometric and BIA tests:

- (1) Relative to reference values
- (2) Relative to published literature
- (3) To explain differences in measures taken at different anatomic locations, and with the body in different positions

Instructions

- Answer the 20 questions below on 8.5" x 11" paper, 1" margins, 12 pt font, double-spaced, paginated.
- Draw from the literature in your responses. Reference your sources (referencing style is up to you).
- The answers to all questions below should not exceed 10 to 12 pages. The title page and list of references are not included in this page limit.
- Late lab reports will incur a 10% (out of 100) per day (including weekend days) penalty, unless accompanied by a medical note.

Questions to Answer in Your Report

Stature and Knee Height [10 MARKS]

1. How does your stature determined from knee height compare with your measured stature? [1]
2. What might account for any differences between the two? [3]
3. Identify and briefly explain **TWO (2)** alternative method(s) for estimating stature. [6]

Waist Circumference [10 MARKS]

4. How do your waist circumference values at the midpoint (between lowest rib and iliac crest) vs. iliac crest compare? [1]
5. What might account for any differences between the two? [3]
6. Which anatomic location better captures chronic disease risk? [6]

Triceps Skinfold, Mid-Arm Circumference and Arm Muscle Area [10 MARKS]

7. How do your standing vs. supine triceps skinfold and standing vs. supine mid-arm circumference values compare? [2]
8. What might account for any differences between supine vs. standing values? [3]
9. How do your standing triceps skinfold and standing arm muscle area values compare with the Frisancho reference values? Explain your answer. [5]

Handgrip Strength [10 MARKS]

10. How does your handgrip strength (left and right) compare with the reference values? [1]
11. What might account for any differences between your values and the Bohannon et al (2006) reference values? [3]
12. What factors need to be considered when using this tool in clinical practice and why? [6]

Bioelectrical Impedance Analysis [30 MARKS]

Supine vs. Foot-to-Foot BIA [10]

- 13. How do your percent fat mass values calculated by supine BIA (and using the 2002 equation of Chumlea et al) vs. foot-to-foot BIA compare? [1]
- 14. What might account for any differences between the two? [3]
- 15. Which method do you think is correct, and why? [6] (Note: If your two fat mass values are similar, consider the above questions for someone for whom the values differ).

Supine vs. Supine vs. Supine BIA [10]

- 16. Find **TWO (2)** other BIA equations in the literature to calculate your percent fat mass from raw resistance/reactance values from supine BIA. The equations should be validated in a population that resemble you (i.e., gender, age, activity level, etc.) as closely as possible. How do the results from the three equations (Chumlea et al plus the two additional equations you find) compare? [3]
- 17. What might account for any differences between the three values? [5]
- 18. Which equation do you think is most appropriate for you, and why? [2]

Clinical Application of BIA [10]

- 19. Identify and explain five (5) factors to consider when choosing an equation to calculate percent fat mass from raw resistance and/or reactance values. [5]
- 20. Identify and explain five (5) factors to consider when measuring a patient using BIA (either supine or foot-to-foot). [5]

Presentation [10 MARKS]

- Quality of references [2]
- Spelling, grammar and punctuation [5]
- Adherence to assignment instructions [3]

Total	/80 =	/25
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Reflections on Sessions with Simulated Patients (25% final grade: 2.5% for each of four mini-reflections, 15% for meta-reflection)

There are three “layers” of reflections for this course: First Impression reflections (completed immediately after your session with the simulated patient; not graded); Mini-reflections (due the Friday following each of the four simulation sessions); and the Meta-Reflection (a look back at all your sessions with the simulated patients, due Apr 4).

The purpose of these reflections is for you to identify areas of strengths and challenges in your interactions with patients and in conducting nutrition-focused physical examinations. Consider your performance relative to the Calgary Cambridge Guide, and any and all of the following elements:

Element	Examples (<i>not an exhaustive list</i>)
Approachability	Smiling, welcoming, friendly, good eye contact
Patient-centredness	10/4 rule observed (as appropriate) Response to patient’s non-verbal cues (e.g., confusion, relief, irritation, etc.) Professional (e.g., hands washed and warmed prior to touching patient) Respectful
Communication skills	Clarity Speed Level of language (i.e., medical jargon avoided; not too simplistic) Ability to answer patient questions Minimal reliance on notes
Knowledge	Clear understanding of patient condition
Competence	Clear understanding of physical examination process Appropriate use of equipment
Time management	Comfortable pace (not rushed, not too slow) Appropriate time spent on each step of the session
Structure of session	Good flow, logically structured

Instructions

- Answer the questions below on 8.5” x 11” paper, 1” margins, 12 pt font, double-spaced, paginated. Include your name and student ID either on a title page (not included in the page limit) or in a header or footer.
- Page limits: Mini-reflections: ~2 pages. Meta-reflection: ~3 to 4 pages
- No references are required.
- Submit to Dropbox by 5PM on the due date. Late reflections will incur a 10% (out of 100) per day (including weekend days) penalty, unless accompanied by a medical note.

Session Observer Checklist and First Impression Reflections

- **As the observer:** complete the Session Observer Checklist during your partners' sessions. Provide to your partner – the clinician - on completion of the session.
- **As the clinician:** complete the First Impression Reflection immediately following your session. Jot down your gut reaction about how you think your session went. These First Impressions do not count for your final grade. Rather, draw from these during our post-session debriefing, and when writing your mini-reflections and meta-reflection.

Mini-Reflections (4) on Individual Sessions with Simulated Patients

Answer each of the following questions for each of the four simulation sessions, from the perspective of your performance as the clinician. Each mini-reflection is worth 2.5%, for a total of 10%, and is due in Dropbox the Friday following the session (Feb 5, Mar 4, Mar 18, Apr 1).

1. What went well in your session with the simulated patient? Why?
2. What did **NOT** go well in your session with the simulated patient? Why?
3. What challenge(s) would you like to address, or what change(s) would you like to make, in future sessions? Why? How will you address these challenges or make these changes?
4. What is(are) the most important thing(s) you learned as a result of your session? Explain.

Meta-Reflection on All Sessions with Simulated Patients

In looking back on all your sessions with the simulated patients over the semester, answer the following questions. Draw from all sources in your responses, including the Session Observer Checklists given to you by your observers, First Impression Reflections and Mini-Reflections. The Meta-Reflection is worth 15% and is due Fri Apr 4 in Dropbox. See the evaluation on the following page.

1. What do you see as strengths with respect to your clinical and patient communication skills? Explain. If you feel that aspects of your clinical and patient communication skills improved over the semester, identify and explain these.
2. What do you see as areas for improvement with respect to your clinical and patient communication skills? How do you think you can address or work on these areas?
3. From your perspective, what are the most important and relevant things you learned as a result of the patient simulation sessions? E.g., about yourself as a clinician, about clinical care, about the various health conditions, etc. Explain.

NUTR*4120: EVALUATION OF META-REFLECTION (15% FINAL GRADE)

Date	
Name	

Quality of Reflection

1	2	3	4	5	6	7	8	9	10
Lacks insight or substance No/few strengths, challenges and/or changes identified							Meaningful and insightful Too many strengths, challenges and/or limitations identified		

Level of Reflection

1	2	3	4	5
Superficial or overly critical				Neither superficial nor overly critical

Presentation of Reflection

1	2	3	4	5	6	7	8	9	10
Inconsistent with instructions Grammatical, spelling and/or punctuation errors Writing lacks clarity. Poor flow.							Consistent with instructions Free of grammatical, spelling and punctuation errors Writing clear. Flows well.		

Comments:

Total= /25 = /15

Nutritional Assessment Integration Assignment (25% of final grade; due Apr 8 by 5PM, in Dropbox)

Purpose of the Integration Assignment

1. To relate findings of a nutrition-focused physical exam (NFPE) with those of the other components of a nutritional assessment, including dietary, biochemical and clinical assessments.
2. To interpret the NFPE findings and determine the next steps in the patient's nutrition care with you as the dietitian.
3. To continue practicing using medical terminology and short forms/abbreviations.

This is an individual, not a team, effort.

What To Do

"Invent" a Patient from One of the Following Populations

- Cystic Fibrosis
- Cancer
- Crohn's Disease
- Ulcerative Colitis
- Diabetes (*use a case description which differs substantially from the exemplar posted to CourseLink*)
- A surgical population
- Stroke
- Multiple Sclerosis
- Brain injury
- Gerontology
- ??? Run an alternate idea by me...

Begin With a Brief Description of The Patient (1 paragraph – ½ page).

In this introductory paragraph, describe your patient (age, gender, occupation, etc.). Describe the diagnosis, brief medical history, current medications, presenting complaint, etc.

Relate Findings from a NFPE With Other Nutritional Assessment Findings (~4 pages)

Relate the findings of what you might expect during a NFPE with those you might expect from other components of a nutritional assessment. That is, describe the NFPE findings you would anticipate for your patient, and identify and explain any dietary, biochemical and/or clinical assessment findings which may correlate with NFPE findings.

Not every NFPE finding will be correlated with dietary, biochemical *and* clinical assessment findings. Make as many connections as make sense for your patient. Don't forget to consider the effect of any medications the patient may be taking.

Below are some examples:

- If you anticipate a NFPE to reveal an elevated waist circumference in a cardiac patient, you might expect a dietary assessment to reveal consumption of energy and/or dietary fat in excess of recommendations. You might also expect a biochemical assessment to reveal elevated serum triglycerides and insulin resistance.

- A patient who has suffered a CVA (cerebrovascular accident) may demonstrate poor hand grip strength on the affected side. A clinical assessment may reveal some facial drooping or onset of dysphagia. A dietary assessment may suggest insufficient energy intake secondary to the patient's need for a texture-modified diet.
- An adolescent patient with Cystic Fibrosis may inconsistently take her pancreatic enzymes. In this case, a NFPE may reveal recent weight loss and SGA category B. A clinical assessment may reveal steatorrhea. A biochemical assessment may reveal fat-soluble vitamin deficiency.



Describe Next Steps in the Care of the Patient (~1 page)

After summarizing and interpreting the nutritional assessment findings for your patient, describe the next steps, as you see them, in the nutritional care of this patient. What should be done? What dietary changes do you recommend (if any)? Do further tests need to be ordered? If so, which? And why? When will you next follow up with the patient? Etc.

Subheadings

Use subheadings to help organize your report. For example:

- Organize by nutritional diagnosis, such as Dehydration, Protein Energy Malnutrition, etc. Under each subheading, describe possible NFPE findings and any dietary, biochemical and/or clinical assessment finding(s), to support the diagnosis.
- OR**
- Organize by NFPE element, such as Skin Assessment, Dysphagia Screening, etc. Under each subheading, describe the dietary, biochemical and/or clinical assessment finding(s) you think might accompany the NFPE finding.

Format

The assignment should:

- Be approximately five to six (5 to 6) double-spaced pages, excluding title page and reference list
- Be size 12 Times New Roman font, 1" margins, paginated
- Be accompanied by a title page complete with your name and student number
- Include medical terminology and medical short forms/abbreviations as appropriate
- Use first person (i.e., "I", "me") if you like
- Include a reference list. Referencing style is up to you – just be consistent throughout.
- Not include an appendix

Resources and Referencing

Include a mix of clinical and nutritional assessment resources such as your NUTR*4040 clinical text, NUTR*4010 text, articles from the scientific literature, etc. Other resources:

- PEN (Practice-Based Evidence in Nutrition) can be accessed through the university's library website. All you need is your standard login information. Cut and paste the following url into your browser: http://primo.tug-libraries.on.ca.subzero.lib.uoguelph.ca/primo_library/libweb/action/search.do?vid=GUELPH&reset_config=true . Enter "practice-based evidence in nutrition" in the Primo search field. Then click on the blue "Online resources."

- Also available in Primo is the Academy of Nutrition and Dietetics (formerly American Dietetic Association) nutrition care manual. Enter “ADA nutrition care manual” in the Primo search field. Then click on the blue “Online resources.”
 - If you are accessing this resource from off campus, you will need to enter the username (lday@uoguelph.ca) and password (uoguelph).
- Online medical dictionary: <http://www.nlm.nih.gov/medlineplus/mplusdictionary.html>.
- Online pharmacological database:
<http://www.nlm.nih.gov/medlineplus/druginformation.html>
- Use any referencing style you wish, just be consistent throughout. The reference list is not included in the page limit.

Submission

- Submit your assignment to CourseLink Dropbox by Fri Apr 8 at 5:00PM.
- Late assignments will incur a 10% (out of 100) per day (including weekend days) penalty, unless accompanied by a medical note.
- Your assignment will be evaluated using the rubric on the following page.

EVALUATION OF NUTRITIONAL ASSESSMENT INTEGRATION ASSIGNMENT (25% FINAL GRADE)

Date	
Name	
Case scenario	

Integration of NFPE with dietary, biochemical and clinical assessment findings (as appropriate)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Patient description is unclear and/or lacks detail. Poorly integrated assessment. Detail lacking or extraneous. Clinical knowledge of condition or accompanying treatment (including medications) is not evident. Not thinking like a clinician.										Patient description is clear and sufficiently detailed. Highly integrated assessment. Comprehensive. Appropriate level of detail. Clinical knowledge of condition and accompanying treatment (including medications) is evident. Thinking like a clinician.														

Next Steps in Patient Care

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Unclear, no or poor justification, unrealistic, irrelevant to the case.										Clear, justified, realistic, relevant.				

Presentation of Assignment

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Poor spelling, grammar and/or punctuation. Formatting not consistent with instructions. Poorly organized. Poor flow. No or poor subheadings. No medical terminology and/or short forms/abbreviations.										Free of spelling, grammar, punctuation errors. Formatted per instructions. Well organized. Excellent flow. Excellent use of subheadings. Excellent use of medical terminology and short forms/abbreviations.				

References

1	2	3	4	5
Poor quality references. Too many/not enough for a report of this length.				Good quality references. Sufficient for a report of this length.

Grade	/60 =	/25
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