

# **NUTRITION GRADUATE PROGRAM HANDBOOK**

***GUIDE TO THE NUTRITION GRADUATE PROGRAM PROCEDURES***

**2016-2017**

**School of Biological and Population Health Sciences (SBPHS)  
108 MILAM HALL, OREGON STATE UNIVERSITY  
CORVALLIS, OREGON 97331  
PHONE: (541) 737-2643 or (541)737-3324; FAX: (541) 737-6914**

This Graduate Handbook supplements the Graduate Catalog and the Guide to Graduate School Procedures distributed by the Graduate School of OSU. Graduate students should be familiar with and observe all requirements and procedures as defined in those publications. These materials are available on-line at: [http://oregonstate.edu/dept/grad\\_school](http://oregonstate.edu/dept/grad_school).

**Revised December 2016**

# Table of Contents

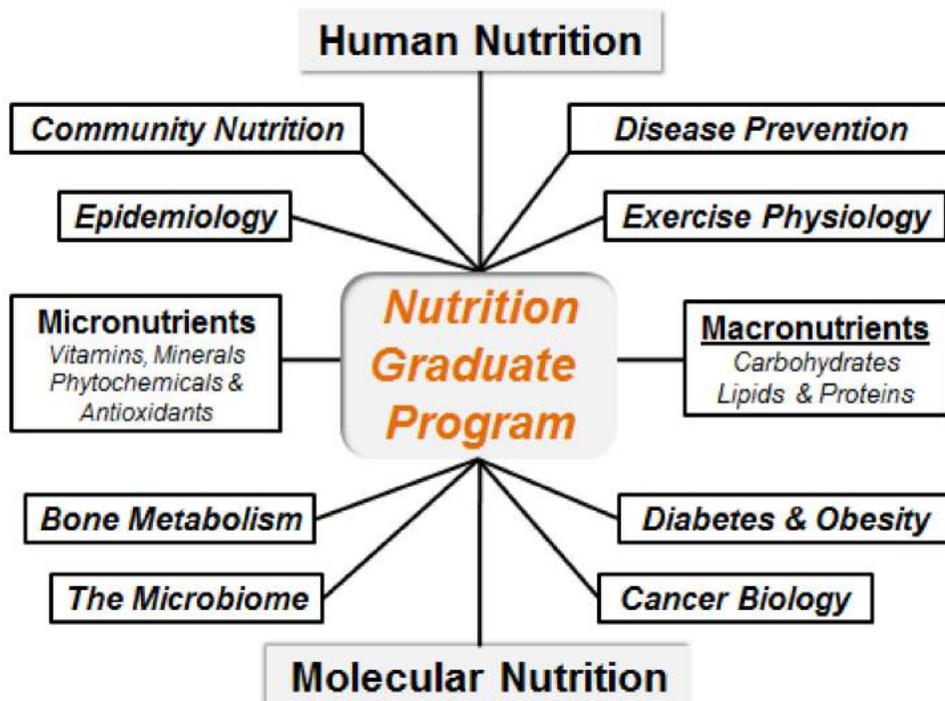
<b>I. Introduction to the Nutrition Graduate Program</b>	<b>5</b>
A. Research	5
B. Faculty	6
C. Program contacts	7
D. How to apply and admission requirements	7
1. Application to the nutrition graduate program	7
2. Admission requirements for entering students	7
3. Graduate Records Exam (GRE)	7
4. International students and the TOEFL exam	8
5. Admission and denial criteria	8
a. Criteria for admission	8
b. Admission status	8
1. Regular admission	8
2. Provisional admission	8
3. Denial of admission	8
6. Assignment of a temporary advisor	9
<b>II. Master's of Science (M.S.) in Nutrition</b>	<b>9</b>
A. Introduction	9
B. Courses	9
1. Minimal competence courses	9
2. Core curriculum courses	9
3. Required public health courses	10
4. A course in responsible/ethical conduct in scientific research is required.	10
5. Core curriculum electives	10
C. Program requirements for all M.S. students	10
1. Selecting a major advisor	10
2. The M.S. graduate committee and program of study	10
a. The MS graduate committee	10
b. Major professor	11
c. Minor professor	11
d. Graduate council representative	11
e. Program of study	11
3. Annual progress reports, meetings & evaluation	11
4. Thesis defense (final) exam for a M.S. in nutrition	12
a. Scheduling the thesis final exam	12
b. Format of the Master's Thesis (Final) exam	12
c. NGP policy permits one re-examination	13
d. Recording and reporting results of the M.S. exam	13
e. Grading thesis or dissertation credits	13
D. Summary of the M.S. program in nutrition	14
E. Time Limit for the M.S. degree in nutrition	14
F. Flow Chart for successful Master's Degree Completion at OSU	15
<b>III. Doctor of Philosophy (Ph.D.) in Nutrition</b>	<b>16</b>
A. Introduction	16
B. Courses	16
1. Minimal competence courses	16
2. Core curriculum courses	16
3. A course in responsible/ethical conduct in scientific research is required.	16
4. Required public health courses	16
5. Core curriculum electives	17
6. Electives recommended for students focusing on molecular nutrition	17
7. Electives recommended for students focusing on human nutrition	17
C. Program requirements for all Ph.D. students	17
1. Selecting a major advisor	17

2.	The Ph.D. graduate committee and program of study	18
a.	The Ph.D. graduate committee	18
b.	Major professor	18
c.	Minor professor	18
d.	Graduate council representative	18
e.	Program of study meeting	18
3.	Oral preliminary examination	19
a.	General rule for the oral preliminary exam	19
b.	Scheduling the exam	19
c.	Exam format	19
1.	Part 1: The thesis proposal	19
2.	Role of the major advisor with respect to the thesis proposal	19
3.	Discovery-based versus hypothesis-based research	20
4.	Specific instructions for the preparation of the thesis proposal	20
5.	Guidelines for the evaluation of the proposal	21
6.	Part 2: The seminar	21
7.	Part 3: The oral exam	21
8.	NGP policy permits one re-examination	22
9.	Recording and reporting results of the oral preliminary exam	22
4.	Annual Progress Reports & Meetings	22
5.	Final oral defense of the dissertation	23
a.	Scheduling the dissertation exam	23
b.	The oral defense	23
c.	format for the evaluation of the dissertation	23
d.	Evaluation of the oral exam	24
e.	NGP policy permits one re-examination	24
f.	Recording and reporting results of the Ph.D. exam	24
6.	Grading of thesis or dissertation credits	24
D.	Summary of the Ph.D. program in Nutrition	25
E.	Time limit for the Ph.D. degree in Nutrition	25
F.	Flow chart for successful Ph.D. completion at OSU	26
<b>IV.</b>	<b>Evaluation of Progress in the Nutrition Graduate Program</b>	<b>27</b>
A.	Definition of satisfactory progress	27
B.	Dismissal from the Graduate School	27
C.	Grievance Procedure	28
<b>V.</b>	<b>Human Subjects and Animal Use in Research</b>	<b>28</b>
<b>VI.</b>	<b>Graduate Assistantships, Fellowships &amp; Scholarships</b>	<b>29</b>
A.	Teaching assistantships	29
B.	Research assistantships and scholarships	29
C.	Departmental fellowships	29
D.	Limits on Departmental Support	29
E.	Assistantship responsibilities and performance	29
1.	Duties and responsibilities	29
2.	Performance review	30
3.	Reappointment	30
<b>VII.</b>	<b>Use of Department Equipment, Supplies and Facilities</b>	<b>31</b>
<b>VIII.</b>	<b>Where to go for help</b>	<b>31</b>
<b>IX.</b>	<b>Important websites</b>	<b>31</b>
<b>X.</b>	<b>Forms obtained from the OSU Graduate School</b>	<b>32</b>

<b>XI. Appendices: NGP forms for filing reports</b>	32
Appendix #1: Annual graduate committee report	33
Appendix #2: Annual overall evaluation of the graduate student by the major advisor	34
Appendix #3: Scoring Guide: MS DEFENSE EXAM in NUTRITION	35
Appendix #4: Scoring Guide: Ph.D. ORAL PRELIMINARY EXAM in NUTRITION	36
Appendix #5: Scoring Guide: Ph.D. DISSERTATION DEFENSE EXAM in NUTRITION	37

# I. Introduction to the Nutrition Graduate Program (NGP)

**A. Research.** Research in the field of nutrition has evolved to become a highly integrative discipline. The discipline covers such fundamental areas as molecular biology, biochemistry, physiology, clinical nutrition, public health, and consumer issues, i.e., *Cells to Community*. As such, research interest of the NGP faculty is broad.



The NGP faculty received research support from the National Institutes of Health, US Department of Agriculture, Department of Defense, NASA and other federal & state agencies. Several NGP faculty are principal investigators at the Linus Pauling Institute, an internationally recognized research facility devoted to the study of micronutrients and human health.

The goal of the NGP is to provide qualified students the opportunity to pursue studies in cutting-edge nutrition research and become prepared for a professional career in academia, government or industry in the fields of Human Nutrition or Molecular Nutrition. The School of Biological and Population Health Sciences (**SBPHS**) offers Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Nutrition.

## **B. Faculty Participating in the Nutrition Graduate Program:**

### **School of Biological and Population Health Sciences (SBPHS)-Nutrition Faculty:**

<b>Tammy Bray, Ph.D.</b>	Professor, Dean of the College of Public Health and Human Sciences, Principal Investigator Linus Pauling Institute
<b>Mary Cluskey, Ph.D., R.D.</b>	Associate Professor, Director of the Program in Dietetics
<b>David Dallas, Ph.D.</b>	Assistant Professor
<b>Emily Ho, Ph.D.</b>	Professor, Principal Investigator Linus Pauling Institute
<b>Stephanie Grutzmacher, Ph.D.</b>	Assistant Professor
<b>Norman Hord, Ph.D., MPH., RD</b>	Associated Professor, Co-director SBPHS
<b>Neilann Horner, Ph.D., MPH, R.D.</b>	Clinical Assistant Professor, Director, Didactic Program in Dietetics
<b>Urszula Iwaniec, Ph.D.</b>	Associate Professor
<b>Donald B. Jump, Ph.D.</b>	Professor, Coordinator of the Nutrition Graduate Program Principal Investigator Linus Pauling Institute
<b>Melinda Manore, Ph.D., R.D.</b>	Professor
<b>Yumie Takata, Ph.D.</b>	Assistant Professor
<b>Emily Tomayko, Ph.D., R.D.</b>	Assistant Professor
<b>Maret G. Traber, Ph.D.</b>	Professor, Principal Investigator, Linus Pauling Institute
<b>Russell Turner, Ph.D.</b>	Professor, Director of the Bone Research Laboratory
<b>Siew Sun Wong, Ph.D.</b>	Assistant Professor and Extension Nutrition Specialist

### **Adjunct Faculty:**

<b>Gerd Bobe, Ph.D., MPH</b>	Assistant Professor, Department of Animal Science Principal Investigator Linus Pauling Institute
<b>Adrian F. Gombart, Ph.D.</b>	Associate Professor, Department of Biochemistry & Biophysics, Principal Investigator, Linus Pauling Institute
<b>Andy Karplus, Ph.D.</b>	Professor, Department of Biochemistry and Biophysics
<b>Molly Kile, Ph.D.</b>	Assistant Professor – SBPHS-Public Health
<b>Mark Leid, Ph.D.</b>	Professor, Department of Pharmaceutical Sciences
<b>Andriy Morgun, M.D., Ph.D.</b>	Assistant Professor of Pharmaceutical Sciences-Pharmacy

<b>Sean Newsom, Ph.D.</b>	Assistant Professor, SBPHS-Kinesiology
<b>Matthew M. Robinson, Ph.D.</b>	Assistant Professor, SBPHS-Kinesiology
<b>Thomas Sharpton, Ph.D.</b>	Assistant Professor, Department of Microbiology and Statistics
<b>Neil Shay, Ph.D.</b>	Professor, Department of Food Science and Technology
<b>Natalia Shulzhenko, M.D., Ph.D.</b>	Assistant Professor, Department of Biomedical Sciences-Vet. Med.
<b>Ellen Smit, Ph.D., R.D.</b>	Associate Professor, SBPHS- Public Health
<b>David Williams, Ph.D.</b>	Professor, Department of Environmental & Molecular Toxicology Principal Investigator-Linus Pauling Institute

### **C. Program Contacts:**

**Donald B. Jump, Ph.D.**, Professor and Coordinator of the Nutrition Graduate Program, School of Biological and Population Health Sciences, 107A Milam Hall, Oregon State University  
Phone : 541-737-4007; Email: [Donald.Jump@oregonstate.edu](mailto:Donald.Jump@oregonstate.edu)

**Debi Rothermund**, Department Assistant, School of Biological and Population Health Sciences, Graduate Programs, 101 Milam Hall, Oregon State University, Corvallis, OR 97331-5109, Phone: 541-737-3324 FAX: 541-737-6914, Email: [Debi.Rothermund@oregonstate.edu](mailto:Debi.Rothermund@oregonstate.edu)

### **D. How to Apply and Admission Requirements:**

#### **1. Application to the Nutrition Graduate Program**

Go to “Application Process” at:

<http://health.oregonstate.edu/degrees/graduate/nutrition/apply>

**2. Admission requirements for entering students.** Students applying to the Nutrition Graduate Program are required to have a B.S or M.S. in the biological sciences or a DVM, M.D., D.O. A minimal proficiency in: anatomy & physiology, biology, general chemistry with lab, organic chemistry with lab is required for admission to the Nutrition Graduate Program. The M.S. and Ph.D. options have additional highly recommended courses for admission (see below “Minimal competency courses”). These courses, however, are not required for admission. If the student has not achieved these latter minimal competencies, appropriate courses will be added to the student’s program of study.

**3. Graduate Records Exam (GRE).** Students are required to take the Graduate Records Exams (GRE): Verbal, Quantitative and Analytical. A subject test is not required. The GRE results are part of the application to the program. The NGP requires a minimum score of 50<sup>th</sup>-percentile in each section. The GRE must be no more than 2 years old at the time of registration.

**4. International Students and the TOEFL exam:** The University requires international students to take the Test of English as a Foreign Language (TOEFL). The TOEFL test measures English language skills in reading, listening, and writing. The OSU Graduate School requires a minimum TOEFL score of 550 (paper-based test), 213 (computer-based test), or 80 total score with all sub-scores 18 or above (Internet-based Test [iBT]) for regular admission. The Nutrition Graduate Program accepts these minimum scores. The TOEFL score must be no more than two years old at the time of the student's first term of registration. Please refer to the OSU Graduate Catalog (<http://catalog.oregonstate.edu/Default.aspx?section=Graduate>) for complete details. This link ([http://oregonstate.edu/dept/grad\\_school/future/international.html](http://oregonstate.edu/dept/grad_school/future/international.html)) will direct you to the official TOEFL website for more information about the test and a listing of TOEFL test centers.

- 5. Admission and Denial Criteria.** No single criterion will serve as a basis for admission or denial to the Nutritional Graduate Program.
- a. Criteria for admission:
    - i. Evidence of outstanding scholarship and research potential from previous academic record, letters of recommendation, and GRE scores.
    - ii. Professional goals that are compatible with a graduate degree in nutrition within the department
    - iii. Scholarly interest compatible with one or more of the faculty who are active in this degree program.
  - b. Admission status: The decision of the NGP faculty will be one of the following:
    1. **Regular admission** is granted when the graduate applicant meets the criteria of adequate academic preparation, satisfactory and competitive grade point average and GRE scores, favorable letters of recommendation, completed supplementary Information Form, if enrollment limits have not been met.
    2. **Provisional admission** is granted either when the applicant has less than a satisfactory undergraduate record, but shows potential for high achievement as a graduate student as evidenced by high GRE scores and/or strong letters of recommendation, or the applicant meets the criteria for the regular admission but has had insufficient academic preparation for the designated area of graduate study. In such cases, the conditions for admission are stated in the letter of acceptance. The student must meet these stated conditions prior to advancement to regular status. **The student is responsible for initiating a change in graduate classification after the conditions of provisional admission have been fulfilled.** If the conditions for admission are not met within three quarters of the student's notification, the student will be dropped from the program. Students who are dropped from the program may reapply for admittance when they can present evidence that the conditions have been met. Presentation of such evidence does not guarantee re-admittance.
    3. **Admission is denied** when either the applicant does not meet the necessary criteria for admission; the applicant does not rank sufficiently high to be selected for the available slots; it is deemed that departmental program fails to

match the applicant's needs, goals, and interests; or no faculty advisor is available.

- 6. Assignment of Temporary Advisor.** At the time of admission to the Nutrition Graduate Program, the student is assigned a temporary faculty advisor in the student's selected area of study. The Coordinator of the Program will notify the student of the temporary advisor selected. In general, both M.S. and Ph.D. will be admitted to the program with the understanding that they will work with a particular faculty member who they have had the opportunity to talk with and discuss potential research areas prior to admission into the program. However, if no faculty advisor has been selected, the Coordinator of the Program will serve as the temporary faculty advisor to the M.S. or Ph.D. student.

## II. Master's of Science (M.S.) in Nutrition

**A. Introduction.** The M.S. in Nutrition at OSU is designed to provide the student with advanced training in nutrition through both course work and research. The research areas are varied and cover areas with an emphasis on molecular, biochemical, physiological & community nutrition as it applies to humans. Successful completion of the M.S. in Nutrition will enable students to continue their graduate or professional education or pursue employment in academia, the government or private industry. M.S. students wishing to pursue the Ph.D. degree in Nutrition at OSU will need to apply to the NGP for consideration for the Ph.D. program. All entering M.S. students are expected to have proficiency in human nutrition, biochemistry & physiology equivalent to NUTR 417/418 & BB 450/451, Z331 & 341. If the student does not have proficiency in one or more of these courses, these courses will be added to the program of study. The curriculum for the M.S. degree in Nutrition is described below. The OSU graduate school requires a minimum of 45 credits beyond the BS for the M.S., and that no more than half of the credits in a program of study can be from 'slash' courses (those that are taught at 400/500 levels simultaneously). The curriculum is composed of 500-level 'slash' courses and 500 or 600-level graduate-only courses.

### B. Courses:

#### 1. Minimal Competence 400-500 (Slash) Courses:

<u>Course #</u>	<u>Title</u>	<u>Credits</u>
NUTR 517 & 518	Human nutrition science (or equivalent)	8
BB 550 & 551	General biochemistry (or equivalent)	6
Z 331	Human anatomy & physiology (or equivalent)	3
Z 341	Human anatomy & physiology lab (or equivalent)	2
	<b>Total</b>	<b>19</b>

#### 2. Core Curriculum: All courses are required:

<u>Course #</u>	<u>Title</u>	<u>Credits</u>
NUTR 503	Thesis	6-12
NUTR 507	Seminar	2
NUTR 550	Nutritional Status	4
NUTR 617	Advances in Macronutrient Metabolism	3
NUTR 618	Advances in Micronutrient Metabolism	3
	Graduate level statistics	3-12

(For example, St 511-512 Methods in statistical analysis; H524 Health data analysis, or other statistics courses, as determined by the student's graduate committee)

**Total** **21-36**

**3. Required Public Health Courses**

H 523	Foundations in Public Health	4
H 525	Principles and Practices of Epidemiology	4

**4. A course in responsible/ethical conduct in scientific research is required.**

Two courses are available at OSU, choose one:

- GRAD 520** Responsible conduct for research, 1 credit
- MCB 557 Scientific skills and ethics, 3 credits

**5. Core Curriculum Electives:** (Select at least one 3-5 credit course from the list below.)

Course #	Title	Credits
NUTR 514	Health Benefits of Functional Foods	3
NUTR 520	Medical Nutrition Therapy	5
NUTR 535	Nutrition and Exercise	3
NUTR 546	Foodservice Organizations	4
H 526	Epidemiology Methods	3
H 577	Dietary Interventions for Public Health	3
H 591	Selected topics: Public Health Surveillance	3
NUTR 699	Special topics in nutrition research	3

**Special topics courses include:**

- Bone Physiology, offered odd years (Winter)
  - Neuroendocrine Regulation of Energy Metabolism, offered even years (Winter)
  - \*Advances in Metabolic Disease, odd years (Spring)
  - \*Advances in Cancer Research, offered even years (Spring)
- [NOTE:** Some Advanced courses (\*) may not be offered in the future. You may substitute advanced courses from other programs, e.g., BB, ZOL, etc. However, you should obtain approval from your guidance committee.]

***Additional graduate level courses can be added as determined by the major professor and the student's Graduate Committee to total a minimum of 45 credits.***

**C. Program Requirements for All M.S. Graduate Students.**

**1. Selecting a Major Advisor.** Students must select a Major Advisor [Major Professor] by the end of their 1<sup>st</sup> year in the program. If a major advisor has not been selected by the time the student arrives at OSU (first term), the student will be encouraged to contact faculty for research rotations in their labs (NUTR 501, Research). If the student has not identified a Major Advisor by the end of the first year, the student will withdraw from graduate program.

**2. The M.S. Graduate Committee and Program of Study.**

**a. The M.S. Graduate Committee.** The student's Graduate Committee consists of at least four members of the graduate faculty; two in the major field, one in the minor field if a minor is included, and a Graduate Council representative. When a minor is not included, the fourth member may be from the graduate faculty at large. The student, in consultation with the major advisor, is responsible for selecting the Graduate Committee. The Graduate Committee

approves the student's program of study and thesis; and provides guidance at regular intervals. The M.S. Graduate Committee serves as the examining committee for the M.S. Final Exam.

**b. Major Professor:** The student's major professor (MP) is the committee member from your major field who serves as your primary academic advisor, your principal thesis advisor, and the general mentor for your academic program and your research. Your MP must be a Graduate Faculty member in the Nutrition Graduate Program who is approved to direct students at your level.

**c. Minor Professor:** If the student declares a minor, the minor professor is the member on your committee who represents your minor department or field. The minor professor must be an approved Graduate Faculty member in the minor department/program.

**d. Graduate Council Representative:** All Master's & Doctoral students who are writing a thesis are required to include a Graduate Council Representative on their committee. The Graduate Council Representative (GCR) serves in the role of impartial committee member who advocates for the student and insures that all rules governing committee procedures are followed. He or she must be present at your final defense of your thesis. You must select a GCR from a list provided for you by the Graduate School. After you have identified a representative, you must return this list to the Graduate School, indicating the faculty member serving in the GCR role.

**e. Program of Study.** A regular master's degree student must file a Program of Study document ("OSU Graduate School Master's Program for the Degree of MS" is available at: [http://oregonstate.edu/dept/grad\\_school/current/forms.html](http://oregonstate.edu/dept/grad_school/current/forms.html)) with the Graduate School & School of Biological and Population Health Sciences (SBPHS) before completing 18 graduate credits. This includes credits reserved as an undergraduate or post-baccalaureate student and credits earned as a post-baccalaureate, graduate non-degree-seeking student, or graduate student. A student who does not file a program within the specified deadline will not be allowed to register for the next term. A registration hold also may be placed on students whose Programs of Study are not approved after initial evaluation by the Graduate School and until appropriate action is taken to bring the Program of Study into compliance with Graduate Council policy.

Effective fall 2005, all graduate student's Programs of Study submitted to the Graduate School must consist of, at a minimum, 50% graduate stand-alone courses. The remaining credits may be the 500 component of 400/500 slash courses.

If a minor is declared, approximately two-thirds of the work (30 graduate credits) should be listed in the major field and one-third (15 graduate credits) in the minor field. In such cases, the student's Graduate Committee must include a member from the minor department.

The program of study is developed under the guidance of the major professor, and minor professor when a minor is included, and signed by those professors and the chair of the School of Biological and Population Health Sciences (SBPHS) and Coordinator of the Nutrition Graduate Program before filing the document with the Graduate School. Changes in the program may be made by submitting a Petition for Change Form, available at the Graduate School.

***Copies of the signed and approved Program of Study should be sent to each member of the student's Graduate Committee, the student and the student's academic file.***

### **3. ANNUAL PROGRESS REPORTS, MEETINGS & EVALUATION.**

Following the first meeting, filing of the OSU Graduate School Master's Program for the Degree of M.S. report to the SBPHS and Graduate School, the student is required to meet with their Graduate Committee at least 1 time each year for the duration of their program. This meeting is an evaluation of the student's progress in the program. As such, the student is

expected to give an oral presentation and provide a written report on their progress (see details below).

It is the student's responsibility to schedule the meeting with their M.S. Graduate Committee. The written yearly progress report (see details below) is to be given to the M.S. Graduate Committee one week before the scheduled meeting. The yearly progress report should have the following format.

**a. Brief introduction:** include in this section the hypothesis and specific aims in the original thesis proposal.

**b. Results and discussion:** This section should include an update on all progress toward the completion of the specific aims. If there has been a change in the aims or direction of investigation, this change should be well described. This section should also include a statement of the percentage of progress on the aims (original/revised).

**c. Future studies/timetable.** This section should briefly indicate the studies that are left to be done and the anticipated timetable for their completion.

**d.** List all manuscripts submitted, papers in press/published; abstracts submitted/presented.

At the annual meeting with the committee, the student should give a brief (~30 min.) oral summation of the progress report. The major advisor is required to provide a written summary of the yearly meeting using the form in **Appendix #1**. The written summary is to be signed by the committee members and the student. Copies are to be distributed to the student, mentor, committee members and the student's file.

**e. Annual Evaluation by the Major Advisor:** The Nutrition Graduate Program also requests the Major Advisor to provide an annual evaluation of the student's overall progress in the MS. & Ph.D. program (**Appendix #2**). This report addresses, in addition to information on progress in research, the student's progress in course work and financial support for the coming year. Copies of this completed report are to be distributed to the SBPHS (student file), major advisor and the student.

**4. Thesis Defense (Final) Exam for a M.S. in Nutrition.** The M.S. Thesis Defense (Final) Exam is in defense of the student's Master's Thesis and will be conducted and evaluated by the student's M.S. Graduate Committee. The student's major advisor will chair this examination.

**a. Scheduling the Thesis Final Exam.** The student needs to file an Event Scheduling Form ([http://oregonstate.edu/dept/grad\\_school/current/forms.html](http://oregonstate.edu/dept/grad_school/current/forms.html)) with the Graduate School two weeks prior to the date of the exam. The Graduate School will send the student a form "OSU Graduate School Report of Final Examination for Advanced Degree". This form must be present at the exam.

At the time the Event Scheduling Event form is submitted to the Graduate School, the student submits the Thesis to the major advisor and Graduate Committee. This will allow time for the members of the Committee to review and evaluate the Thesis before the examination. The student and/or the major advisor must circulate an email announcement of the Master's Thesis Examination to SBPHS faculty and graduate students. The student must be registered during the quarter in which the Master's Thesis (Final) Exam is taken.

**b. Format of the Master's Thesis (Final) Exam:**

1) The student prepares a written Master's Thesis based on their original research

conducted at OSU. The format for the thesis is provided by the OSU Graduate School [http://oregonstate.edu/dept/grad\\_school/thesis/thesisguide.pdf](http://oregonstate.edu/dept/grad_school/thesis/thesisguide.pdf)

- 2) Present a public seminar on the Master's Thesis
- 3) Meet with the M.S. Committee in private to defend the Thesis.

At the conclusion of the oral exam, the Committee will decide whether the student's performance is adequate to pass. The Committee will vote; a secret ballot may be used if requested. The student passes the exam if there is no more than one negative vote. The student fails the exam if there are 2 or more negative votes. If the Committee's decision is that the student has not passed the exam, the Committee must decide whether or not to allow the student to take a re-examination. If the majority of the Committee votes in favor of a re-examination, the recommendation for re-examination must be recorded (Scoring Guide: Master's Thesis Final Exam **Appendix #3**).

**c. NGP policy permits one re-examination.**

The Committee must set expectations for the student to fulfill for the re-examination. The Committee must set a time interval that must elapse before the re-examination is permitted. This time interval should not exceed three (3) months from the first exam. If the majority of the Committee votes against a re-examination, the recommendation will be to terminate the student's work toward this degree. This vote should be recorded (Scoring Guide: Master's Thesis Final Exam **Appendix #3**). If the student fails the exam, the student's enrollment in the M.S. program will be ended.

**d. Recording and Reporting Results of the M.S. Exam:**

The following forms need to be completed by the Graduate Council Representative:

"OSU Graduate School Report of Final Examination for Advanced Degree"

"Checklist for the Graduate Council Representative"

Once these documents are completed and signed, copies are distributed to the Graduate School, the SBPHS office for filing, the student, the major advisor and members of the student's committee.

The following form needs to be completed by the Major Advisor:

Scoring Guide: Master's Thesis Final Exam, **Appendix #3**).

Once this document is completed and signed, copies are distributed to the SBPHS Office for filing, the student, the major advisor and members of the student's committee.

**e. Grading of Thesis Credits.** The grades for research credit for thesis or work (NUTR 503) are handled differently from grades for coursework. A mark of Z (i.e., course in progress) will be given for all thesis/dissertation credits taken prior to the oral defense of your research. Once the oral defense is completed, all Z grades will be changed to Y grades (i.e., satisfactory) or E grades (i.e., fail) when the faculty advisor completes the appropriate paperwork and assigns a non-Z grade for the thesis/dissertation credits. Thesis credit requirements for the M.S. program are 6-12 credits (NUTR 503).

#### **D. SUMMARY OF THE M.S. PROGRAM IN NUTRITION.**

**[See flow chart on next page]**

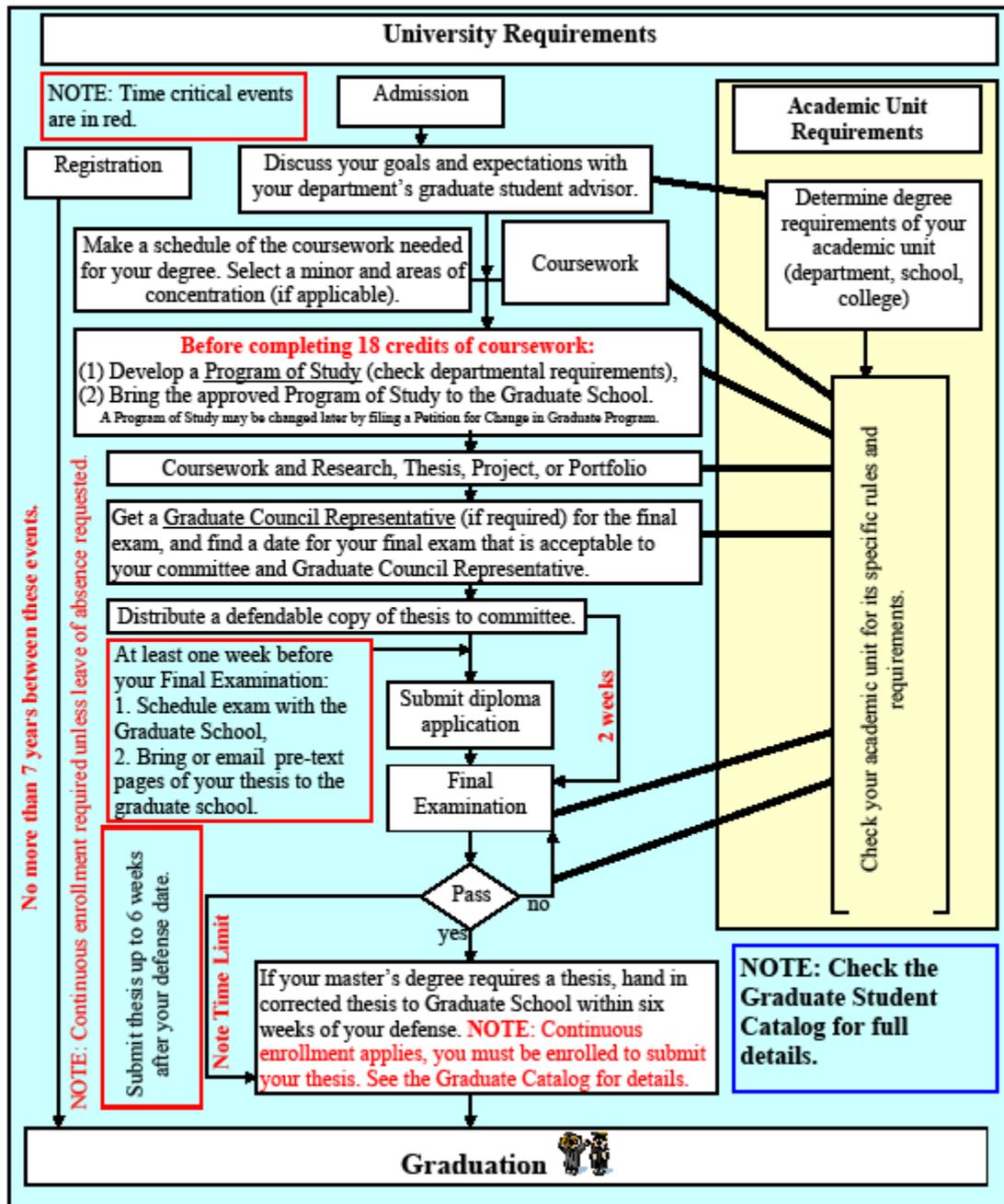
1. File the Program of Study “OSU Graduate School Master’s Program for the Degree of M.S.” with the Graduate School and SBPHS before completing 18 credits in the Nutrition Graduate Program.
2. The student is expected to meet annually with their Graduate Committee and file a report on the progress of their research and progress in the program.
3. Complete at least 45 credits of course work beyond the B.S. degree in the major and related fields as prescribed by the Program of Study with a grade of 3.0 or better.
4. Prepare a Master’s Thesis based on original research that makes a significant contribution to the field of nutrition.
5. Pass the Master’s Thesis (Final) Examination within seven years of entry into the M.S. program.

**E. Time Limit for the M.S. Degree in Nutrition:** Time limit for completion of the M.S. degree is governed by the Graduate School: “All work toward a master’s degree, including transferred credits, course work, thesis, and all examinations, must be completed within seven (7) years.” (<http://catalog.oregonstate.edu/Default.aspx?section=Graduate>).

***No more than 7 years between the time of registration in the program and successful completion of the Master’s Thesis Exam.***

***F. Flow chart for successful Master’s degree completion at Oregon State University***

**Flow Chart for Successful Master's Degree Completion at Oregon State University**



### III. Ph.D. in Nutrition

**A. Introduction.** The Ph.D. in Nutrition is designed to prepare the student for a professional career in Nutrition through a combination of coursework and research. Students who plan to focus their research on human nutrition are encouraged to add elective courses in epidemiology or exercise science to their program of study. Students who plan to focus on molecular nutrition are encouraged to add courses in molecular and cell biology and advanced courses in biochemistry & biophysics to their program of study. All entering Ph.D. students are expected to have proficiency in human nutrition, biochemistry and physiology equivalent to NUTR 417 & 418, BB 450 & 451 and Z 430-432. Exercise physiology can substitute for 1 quarter of the 3 quarter course in human physiology. If the student does not have proficiency (minimal competence) in one or more of these courses, these courses will be added to the program of study. The OSU graduate school requires a minimum of 108 credits beyond the B.S. for the Ph.D.

#### B. Courses.

##### 1. Minimal Competence 400-500 (Slash) Courses:

<u>Course #</u>	<u>Title</u>	<u>Credits</u>
NUTR 517 & 518	Human nutrition science (or equivalent)	8
BB 550 & 551	General biochemistry (or equivalent)	6
Z 530-532	Human physiology (or equivalent)	12
<b>Total</b>		<b>26</b>

##### 2. Core Curriculum: All courses are required:

<u>Course#</u>	<u>Title</u>	<u>Credits</u>
NUTR 607	Seminar	3
NUTR 550	Nutritional Status	4
NUTR 603	Thesis (Dissertation)	36 or more
NUTR 617	Advances in Macronutrient Metabolism	3
NUTR 618	Advances in Micronutrient Metabolism	3
	Graduate level statistics	3-12

(For example, St 511-512 Methods in statistical analysis; H524 Health data analysis, or other statistics courses, as determined by the student's graduate committee)

##### 3. A course in Responsible/ethical conduct for scientific research is required.

Two courses are available at OSU, choose one.

GRAD 520	Responsible conduct for research, 1 credit	
MCB 557	Scientific skills and ethics, 3 credits	
<b>Total</b>		<b>59-64</b>

##### 4. Required Public Health Courses

H 523	Foundations in Public Health	4
H 525	Principles and Practices of Epidemiology	4

**5. Core Curriculum Electives: (A minimum of 2 NUTR 699 courses are required to fulfill the degree requirements)**

<b>Course #</b>	<b>Title</b>	<b>Credits</b>
NUTR 699	Special topics in nutrition research <u>Special topics courses include:</u> Bone Physiology, offered odd years (Winter) Neuroendocrine Regulation of Energy Metabolism, offered even years (Winter) *Advances in Metabolic Disease, odd years (Spring) *Advances in Cancer Research, offered even years (Spring)	3
<b>Total:</b>		<b>6</b>

[\*NOTE: Some Advanced courses (\*) may not be offered in the future. You may substitute advanced courses from other programs, e.g., BB, ZOL, etc. However, you should obtain approval of your guidance committee.]

H 699	Grant Writing (Jointly listed with PH) Offered yearly, Spring Term	4
-------	---	---

*[Students are strongly recommended to take this course in the 1 or 2 yr in the program in preparation for the Oral Preliminary Exam.]*

**6. Electives recommended for students focusing on molecular nutrition:**

<b>Course #</b>	<b>Title</b>	<b>Credits</b>
MCB 554	Genome organization, structure and maintenance	4
MCB 555	Genome expression and regulation	4
BB 590-592	Biochemistry <i>[BB 590-592 can substitute for BB 550 &amp; 551]</i>	9
BB 654	Proteins	3

**7. Electives recommended for students focusing on human nutrition:**

NUTR 514	Health Benefits of Functional Foods	3
NUTR 535	Nutrition and Exercise	3
H 526	Epidemiology Methods	3
H 577	Dietary interventions in Public Health	3
H 591	Selected topics: Public Health Surveillance	3

Additional graduate level courses can be added as determined by the major professor and the student's Graduate Committee to total a minimum of 108 credits.

**C. Program Requirements for All Ph.D. Graduate Students**

**1. Selecting a Major Advisor.** Students must to select a Major Advisor [Major Professor] by the end of their 1<sup>st</sup> year in the program. If a major advisor has not been selected by the time the student arrived at OSU (first term), the student is encouraged to contact faculty for research rotations in their labs (NUTR 601). If a major advisor has not been selected by the end of the first year, he/she will be directed to investigate additional opportunities within the department or to withdraw from graduate program.

## 2. The Ph.D. Graduate Committee and the Program of Study Meeting.

**a. The Ph.D. Graduate Committee:** A minimum of five members of the Graduate Faculty. At least two faculty are members of the Nutrition Graduate Program. Two Graduate Faculty may be from other Departments or Programs. In addition, a Graduate Council Representative is required. The Major Advisor is one of the two members representing the Nutrition Graduate Program. The student, in consultation with the MP is responsible for selecting the Ph.D. Graduate Committee. The Graduate Committee guides your course work and research and serves as examining committee for the Oral Preliminary Exam and the Final Oral Dissertation Exam. It is generally expected that all committee members or approved substitutes must be present for all formal meetings with the student (e.g. oral preliminary exam and the final oral dissertation exam). If you have a special case in which a committee member may need to participate remotely, you and your committee must assure that all the conditions listed on the [Remote Participation Form](#) are met, and you must submit the form to the Graduate School one week prior to the meeting. Your Major Advisor serves as chair of these meetings.

**b. Major Professor:** Your Major Professor/Major Advisor is the committee member from the Nutrition Graduate Program who serves as your primary academic advisor, your principal thesis advisor, and the general mentor for your academic program and your research. Your Major Professor must be a Graduate Faculty member in the Nutrition Graduate Program and be approved to direct students at your level.

**c. Minor Professor:** If the student declares a minor, the minor professor is the member on your committee who represents your minor department or field. The minor professor must be an approved Graduate Faculty member in the minor department/program.

**d. Graduate Council Representative:** All Doctoral students who are writing a dissertation are required to include a Graduate Council Representative on their committee. The Graduate Council Representative (**GCR**) serves in the role of impartial committee member who advocates for the student and insures that all rules governing committee procedures are followed. He or she must be present at your Program of study meeting, you Oral Preliminary exam and you final oral defense of your dissertation. You must select a GCR from a list provided for you by the Graduate School. After you have identified a representative, you must return this list to the Graduate School, indicating the faculty member serving in the GCR role.

**e. Program of Study Meeting.** The Program of Study meeting is the first meeting the student will have with his/her Graduate Committee. A Ph.D. degree candidate must file a Program of Study document ([http://oregonstate.edu/dept/grad\\_school/current/forms.html](http://oregonstate.edu/dept/grad_school/current/forms.html)) "OSU Graduate School Proposed Doctoral Program (Program of Study)" with the Graduate School and the SBPHS before completing 4 quarters of course work at OSU. This includes credits reserved as an undergraduate or post-baccalaureate student and credits earned as a post-baccalaureate, graduate non-degree-seeking student, or graduate student. The program of study is developed under the guidance of the major professor and the minor professor, when a minor is included. The goal of the Program of study meeting is to outline the overall course the student's course work and research and establish target dates for completion of each phase of training. The student is expected to give a 20-30 min. presentation outlining their research area. The goal of this presentation is to introduce the student's research area to the Committee. The Program of Study document "OSU Graduate School Proposed Doctoral Program" is to be signed by the student's Graduate Committee, the chair of the SBPHS and Coordinator of the Nutrition Graduate Program before filing the document with the Graduate School. Changes in the program may be made by submitting a Petition for Change Form, available at the Graduate School. A student who does not file a program within the specified deadline will not be allowed to register for the next term. A registration hold may be placed on students whose programs of study are not approved after initial evaluation by the Graduate School and until

appropriate action is taken to bring the program of study into compliance with Graduate Council policy. ***Copies of the signed and approved Program of Study should be sent to each member of the student's Graduate Committee, the student and the student's academic file.***

### **3. ORAL PRELIMINARY EXAMINATION.**

**a. General Rules for the Exam:** The Graduate School requires that a student working toward a doctoral degree pass a Oral Preliminary Exam. The purpose of this exam is to determine whether the student understands his/her field of study. Doctoral students in the Nutrition Graduate Program must pass the Oral Preliminary Exam before entering the 3<sup>rd</sup> year in the program. The NGP uses a 3 step process for this exam: 1) a written thesis proposal, 2) a public seminar; 3) a private oral examination with the student's Graduate Committee. The student's major advisor chairs the exam while the Graduate Council Representative chairs the student's performance. Students must enroll for a minimum of three credits during the term in which they undertake the Oral Preliminary Exam.

**b. Scheduling the Exam.** The student needs to file an Event Scheduling Form ([http://oregonstate.edu/dept/grad\\_school/current/forms.html](http://oregonstate.edu/dept/grad_school/current/forms.html)) with the Graduate School two weeks prior to the date of the exam. The Graduate School will send the student a form "OSU Graduate School Report of Final Examination for Advanced Degree". This form must be present at the exam.

At the time the Event Scheduling Event form is submitted to the Graduate School, the student submits the Thesis Proposal to the major advisor and Graduate Committee. This will allow time for the members of the Committee to review and evaluate the Thesis Proposal before the examination. The student and/or the major advisor must circulate an email announcement of the Ph.D. Oral Preliminary Exam to SBPHS faculty and graduate students.

#### **c. EXAM FORMAT:**

**1. Part 1: The Thesis Proposal:** The format described below will be used for the preparation of the written thesis proposal. This proposal is patterned after a Pre-doctoral Fellowship Award from a national funding agency/foundation, e.g., National Institutes of Health (NIH), American Heart Association (AHA), American Diabetes Association (ADA) or US-Department of Agriculture (USDA). Before preparing the proposal, go to the specific website for current directions. Some guidelines are given below to aid the student in the preparation of their proposal. Moreover, some criteria as to how the student's proposal will be evaluated by their Graduate Committee are also delineated below. We expect our students to put forth a scholarly effort in the preparation of this proposal. The student should not just compile his/her technical accomplishments, but demonstrate the breadth and depth of knowledge in the chosen field of human or molecular nutrition research. This document should provide the Graduate Committee sufficient evidence to judge the student's potential (both intellectual and technical) to develop a first-rate dissertation research project.

**2. Role of the major advisor with respect to the thesis proposal.** The goal of the thesis proposal is to assess the student's potential to develop a cogent research plan. It is the major professor's role to provide general guidance to prepare a research proposal. This includes instructing the student into the difference between hypothesis-based versus discovery-based research and a description of the basic steps involved in preparing a thesis (grant) proposal. As such, the student should not plagiarize their mentor's research proposal, but develop a proposal written in their own words that capture a research theme consistent with the mentor's research agenda. The major advisor may discuss with the student the general plan for the proposal and provide minor editing help. It is the responsibility of the student, however, to develop the proposal.

### 3. **Discovery-based versus Hypothesis-based research.**

- a. Discovery-based research** is a research approach that uses one or more methods to determine the effect of a specific treatment on a biological system. Discovery-based research is hypothesis generating research. For example: Which genes in mouse liver are affected by a high fat diet? The approach would use mice fed a control and a high fat diet and a microarray approach to measure changes in gene expression. The analysis would employ specific software programs for data mining and determining which genes are affected. The outcome of this work would allow the investigator to develop specific hypotheses for more focused research questions.
- b. Hypothesis-based research** is an approach that ask a specific question; to which the answer is obtained by experimentation. The outcome of the study either supports or refutes the hypothesis. For example: Vitamin E protects arachidonic acid from mono-oxidation in mouse liver. The approach will compare the level of arachidonic acid oxidation in animals fed a control diet versus a diet supplemented with Vitamin E. The analysis will quantify hepatic arachidonic acid and its oxidized metabolites. The outcome will support or refute the hypothesis that Vitamin E protects arachidonic acid from mono-oxidation.

The student and mentor will need to establish early in the writing of the proposal whether the research is hypothesis-based or discovery-based research. In either case, the student will need to provide a coherent background discussion to justify the research direction, providing preliminary data to indicate feasibility and develop a coherent research plan.

### 4. **Specific instructions for the preparation of the Thesis Proposal:**

- a. Page format:** Double spaced; page limitations are for double spaced format: Font size: 11 or 12; Margins: 3/4 in on all sides. Figure/tables should be formatted in the text, if possible.
- b. Specific Aims.** [Not to exceed 2 pages.] List the broad, long-term objectives and what the specific research proposed in this application is intended to accomplish. State the discovery approach or the hypotheses to be tested and list the aims.
- c. Background and Significance.** [Not to exceed 6 pages.] Briefly sketch the background leading to the present application, critically evaluate existing knowledge, and specifically identify the gaps, which the project is intended to fill. State concisely the importance and physiological relevance of the research described in this application by relating the specific aims to the broad, long-term objectives.
- d. Preliminary Studies.** [Not to exceed 8 pages.] In this section, provide an account of your preliminary studies pertinent to the research proposal that will help to establish your experience and competence to pursue the proposed project. The data can be included as tables, diagrams or figures. Tables, diagrams or figures are included in the 8 page limit.
- e. Research Design and Methods.** [Not to exceed 12 pages.] Describe the research design and the procedures to be used to accomplish the specific aims. Include how the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantage over existing methodologies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. Provide a tentative sequence or timetable for the project. Describe any procedures, situations, or materials that may be hazardous to personnel and the precautions to be exercised.
- f. Literature Cited.** [List all references.] Each reference must include the names of all authors, title, book or journal, volume number, page numbers, and year of publication. The reference should be limited to relevant and current literature. While there is no page limitation, it is important to be concise and to select only those literature references pertinent to the proposed

research. The use of Endnote or Reference Manager is strongly recommended.

**5. Guidelines for Evaluation of the Proposal:** As the candidate prepares their proposal, they should be aware of how the written thesis proposal will be evaluated by the Graduate Committee. Accordingly, the candidate should be sure their proposal contains information to address the following issues.

- a. Does this research advance our understanding of biological systems, improve the control of disease or enhance health?
- b. Under significance: Does this study address an important problem? If the aims of this project are achieved, how will scientific knowledge be advanced? What will be the effect of the study on the concepts or methods that drive this field?
- c. Under Approach: Are the conceptual framework, design, methods and analyses adequately developed, well-integrated and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative strategies (remedies)?
- d. Under Innovation: Does the project employ novel concepts, approaches or methods? Are the aims original and innovative? Does the project challenge existing paradigms or develop new methodologies or technologies?
- e. Under Investigator: Is the investigator appropriately trained and well suited to carry out this work? Is the work proposed appropriate to the experience level of the investigator?

**6. Part 2: The Seminar.** The student's seminar is a presentation of the research proposal in a public forum (seminar). The student's presentation should be ~50 minutes in length (40 min. presentation + 10 min. of a question/answer period from the audience). Do not attempt to include all of the information in the written thesis proposal in the oral seminar. The key to success in this portion of the exam is to give a clear and coherent presentation to a general scientific audience. A very nice paperback book that provides guidance for the preparation and presentation of a scientific talk is: "Dazzle 'em with style: The art of oral scientific presentation" by Robert R.H. Anholt. (1994) W.H. Freeman and Company, ISBN: 0-7167-2583-5. Rehearse your presentation with your mentor, lab colleagues and/or fellow graduate students.

All SBPHS and interested faculty are encouraged to attend the Thesis Proposal Seminar and to submit written evaluations of the student's performance. The student's Graduate Committee may use these written comments as part of the Oral Preliminary Exam.

**7. Part 3: The Oral Exam:** The Oral Preliminary Exam is administered immediately following the student's seminar on the thesis proposal. This exam is expected to take at least two hours. The student's major advisor chairs the exam while the graduate council representative chairs the evaluation of the student's performance.

The committee will use the following information to reach a decision as to whether the student has passed or failed the exam.

- a. The Thesis proposal, which serves as a foundation for the doctoral research.
- b. The seminar, which serves as one mechanism to determine if the student understands the facts and fundamental concepts pertinent to the dissertation research.
- c. The oral exam, which serves as a more in-depth mechanism to evaluate the student's understanding of the facts and fundamentals pertinent to the dissertation research. In this exam, the student must demonstrate defensible logic in the formulation of

- questions/hypotheses and in the proposed approaches to answer these questions (or test these hypotheses) experimentally.
- d. Approximately 50% of the oral exam must exam the student's knowledge and understanding of fundamental principles in nutrition.

At the conclusion of the oral exam, the Graduate Committee will decide whether the student's performance is adequate to advance the student in the Ph.D. program. The Graduate Committee will vote; a secret ballot may be used if requested. The student passes the exam if there is no more than one negative vote. The student fails the exam if there are 2 or more negative votes. If the student does not pass the exam, the committee must decide whether or not to allow the student to take a re-examination. If the majority of the committee votes in favor of a re-examination, the recommendation for re-examination must be recorded (see below).

**8. NGP policy permits one re-examination.** The committee must set expectations for the student to fulfill for the re-examination. The committee must set a time interval that must elapse before the re-examination is permitted. This time interval should not exceed three (3) months from the first exam. If the majority of the committee votes against a re-examination, the recommendation will be to terminate the student's work toward this degree. This vote should be recorded (**Appendix #4, Scoring Guide: Ph.D. Oral Preliminary Exam**).

#### **9. Recording and Reporting Results of the Exam:**

- a. The following forms need to be completed by the Graduate Council Representative: "OSU Graduate School Report of Final Examination for Advanced Degree" & "Checklist for the Graduate Council Representative"

Once these documents are completed and signed, copies are distributed to the Graduate School, The Departmental office for filing, the student, the major advisor and members of the student's committee.

- b. The following form needs to be completed by the Major Advisor: (**Appendix #4, Scoring Guide: Ph.D. Oral Preliminary Exam**). Once this document is completed and signed, copies are distributed to the Departmental office for filing, the student, the major advisor and members of the student's committee.
- c. ***Failure on the part of the student to fulfill the requirements for the Preliminary Oral Exam within the prescribed time limit will result in termination of the student's Ph.D. program.***

#### **4. ANNUAL PROGRESS REPORTS & MEETINGS.**

Following the first meeting, filing of the Program of Study Report to the SBPHS and the Graduate School, and successful completion of the NGP Preliminary Oral Exam, the student is required to meet with the Graduate Committee at least 1 time each year for the duration of their program. This meeting is an evaluation of the student's progress in the program. As such, the student is expected to give an oral presentation and provide a written report on their progress (see details below).

It is the student's responsibility to schedule the meeting with their Ph.D. Graduate Committee. The written yearly progress report (see details below) is to be given to the Ph.D. Graduate Committee 1 week before the scheduled meeting. The yearly progress report should have the following format.

- a. Brief introduction; include in this section the hypothesis and specific aims in the original thesis proposal.
- b. Results and discussion: This section should include an update on all progress toward the completion of the specific aims. If there has been a change in the aims or direction of investigation, this change should be well described. This section should also include a statement of the percentage of progress on the aims (original/revised).
- c. Future studies/timetable. This section should briefly indicate the studies that are left to be done and the anticipated timetable for their completion.
- d. List all manuscripts submitted, papers in press/published; abstracts submitted/presented.

At the meeting with the Graduate Committee, the student should give a brief (~30 min.) oral summation of the progress report. The major advisor is required to provide a written summary of the yearly meeting using the form in **Appendix #1**. The written summary is to be signed by the committee members and the student. Copies are to be distributed to the student, mentor, committee members and the student's file.

e. **Annual evaluation by the major advisor:** The Nutrition Graduate Program also requests the Major Advisor to provide an annual evaluation of the student's overall progress in the Ph.D. program (**Appendix #2**). This report addresses, in addition to information on progress in research, the student's progress in course work and financial support for the coming year. Copies of this completed report are to be distributed to the Program/School (student file), major advisor and the student.

## 5. FINAL ORAL DEFENSE OF THE DISSERTATION.

- a. **Scheduling the Dissertation Exam.** The student needs to file an Event Scheduling Form ([http://oregonstate.edu/dept/grad\\_school/current/forms.html](http://oregonstate.edu/dept/grad_school/current/forms.html)) with the Graduate School two weeks prior to the date of the exam. The Graduate School will send the student a form "OSU Graduate School Report of Final Examination for Advanced Degree". This form must be present at the exam.

At the time the Event Scheduling Event form is submitted to the Graduate School, the student submits the Dissertation to the major advisor and Graduate Committee. This will allow time for the members of the Committee to review and evaluate the Dissertation before the examination. The student and/or the major advisor must circulate an email announcement of the Dissertation Exam to SBPHS faculty and graduate students.

- b. **The oral defense.** The oral defense of the dissertation will be conducted and evaluated by the student's Graduate Committee. The student's major advisor will chair the examination. The Graduate School Representative will chair the student's performance.
- c. **The format of the oral defense of the dissertation is:**
  1. prepare a written dissertation according to the OSU Graduate School [http://oregonstate.edu/dept/grad\\_school/thesis/thesisguide.pdf](http://oregonstate.edu/dept/grad_school/thesis/thesisguide.pdf)
  2. present a public seminar on the dissertation;
  3. meet with the Ph.D. Committee in private and defend the dissertation.

***The student must be registered during the quarter in which the final oral examination is taken.***

- d. **Evaluation of the oral exam.** At the conclusion of the oral exam, the Committee will decide whether the student's performance is adequate to pass. The Committee will vote; a secret ballot may be used if requested. The student passes the exam if there is no more than one negative vote. The student fails the exam if there are 2 or more negative votes. If the committee's decision is that the student has not passed the exam, the committee must decide whether or not to allow the student to take a re-examination. If the majority of the committee votes in favor of a re-examination, the recommendation for re-examination must be recorded (see below).
  
- e. **NGP policy permits one re-examination.** The Committee must set expectations for the student to fulfill for the re-examination. The Committee must set a time interval that must elapse before the re-examination is permitted. This time interval should not exceed three (3) months from the first exam. If the majority of the Committee votes against a re-examination, the recommendation will be to terminate the student's work toward this degree. This vote should be recorded (**Appendix #5 Scoring Guide: Ph.D. DISSERTATION DEFENSE EXAM in NUTRITION**). If the student fails the exam, the student's enrollment in the Ph.D. program will be ended, but may be allowed to complete a M.S. program. Complete the departmental report using Report on (**Appendix #5 Scoring Guide: Ph.D. DISSERTATION DEFENSE EXAM in NUTRITION**).
  
- f. **Recording and Reporting Results of the Dissertation Exam:**
  - 1. The following forms need to be completed by the Graduate Council Representative:  
"OSU Graduate School Report of Final Examination for Advanced Degree"  
"Checklist for the Graduate Council Representative"  
Once these documents are completed and signed, copies are distributed to the Graduate School, The SBPHS office for filing, the student, the major advisor and members of the student's committee.
  
  - 2. The following form needs to be completed by the Major Advisor:  
(**Appendix #5 Scoring Guide: Ph.D. DISSERTATION DEFENSE EXAM in NUTRITION**). Once this document is completed and signed, copies are distributed to the SBPHS office for filing, the student, the major advisor and members of the student's committee.

## **6. GRADING OF DISSERTATION CREDITS.**

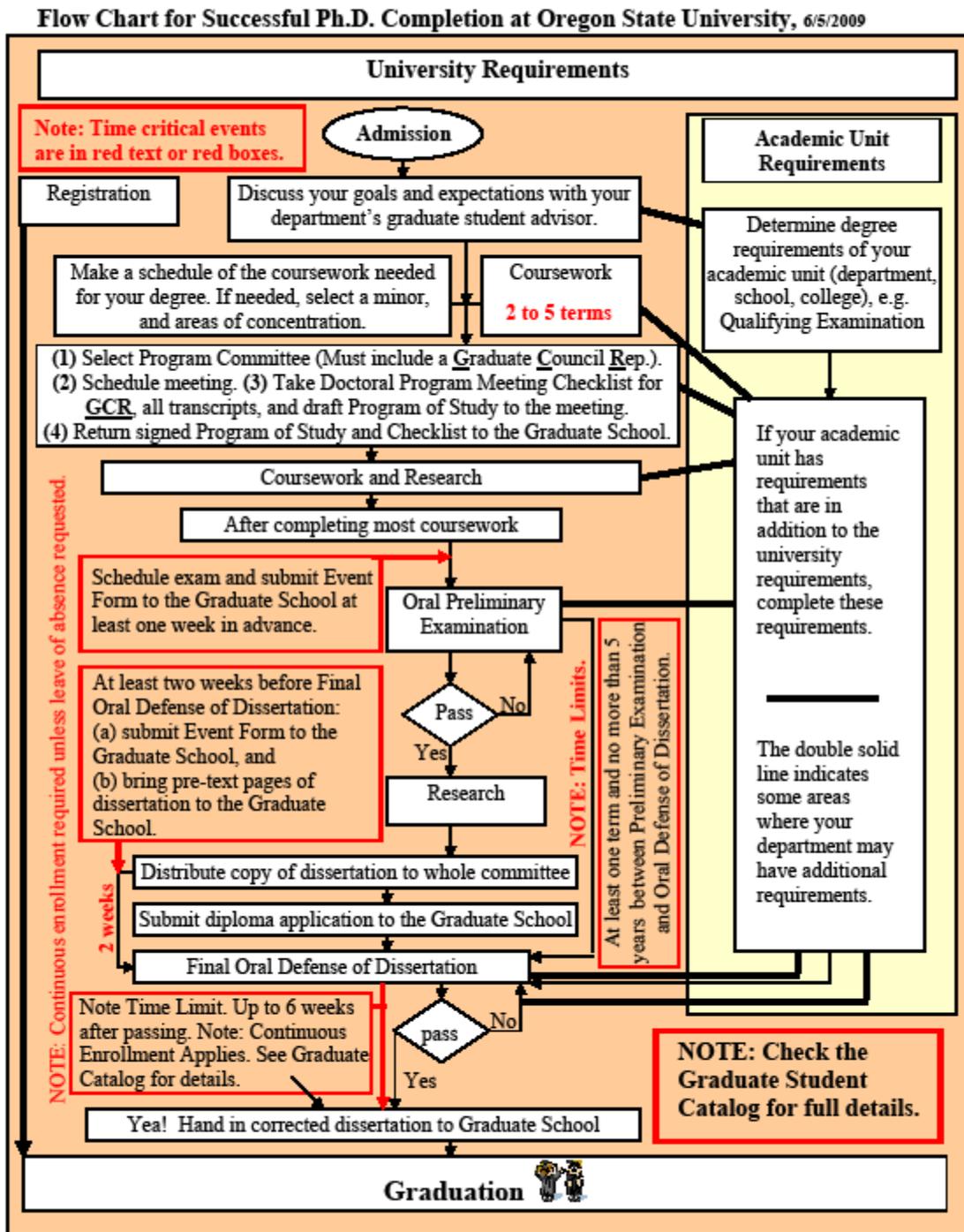
The grades for research credit for thesis or work (NUTR 603) are handled differently from grades for coursework. A mark of Z (i.e., course in progress) will be given for all thesis/dissertation credits taken prior to the oral defense of your research. Once the oral defense is completed, all Z grades will be changed to Y grades (i.e., satisfactory) or E grades (i.e., fail) when the faculty advisor completes the appropriate paperwork and assigns a non-Z grade for the thesis/dissertation credits. Minimum requirements for the PhD program are 30 dissertation credits (NUTR 603).

## **D. SUMMARY OF THE PhD. PROGRAM IN NUTRITION.**

1. File the Program of Study "OSU Graduate School Proposed Doctoral Program" with the Graduate School and the SBPHS before completing 4 quarters of classes/research in the Nutrition Graduate Program.
2. Pass the Oral Preliminary Exam before entering the 3<sup>rd</sup> year in the program.
3. The student is expected to meet annually with their Graduate Committee and file a report on progress in their research and progress in required and elective course work.
4. Complete at least 108 credits of course work beyond the B.S. degree in the major and related fields as prescribed by the Program of Study with a grade of 3.0 or better.
5. Prepare a dissertation based on original research that makes a significant contribution to the field of nutrition.
6. Pass a Final Oral Defense of the Dissertation not less 1 quarter or more than 5 years after the Oral Preliminary Exam.

## **E. TIME LIMIT for the Ph.D. degree in Nutrition: *At least 1 term and no more than 5 years between the Oral Preliminary Exam and the Oral Defense of the Dissertation.***

F. Flow chart for successful Ph.D. completion at OSU.



## **IV. Evaluation of Progress in the Nutrition Graduate Program.**

**A. Definition of Satisfactory Progress:** The language in the OSU Graduate Catalog indicates that a student may be dismissed from the Graduate School for "...failing to make satisfactory progress toward an academic degree, as determined by a major department or the Graduate School...." The catalog indicates that satisfactory progress includes "...maintaining a GPA of 3.00 or better for all courses taken as a graduate student and for courses included in the graduate program, meeting departmental/school requirements, and participating in a creative activity such as a thesis. However, the catalog language does not provide a specific definition of "satisfactory progress."

Given the ambiguous nature of the terms "meeting departmental guidelines" and "participating in a creative activity such as a thesis", the graduate programs within the SBPHS define satisfactory academic progress as the following:

***The student maintains a GPA of 3.00 or better for all course work taken as graduate student and for courses included in the program of study.***

The student receives a rating of "satisfactory" on their annual written evaluation, which is based upon such factors as filing program of study, timely progress in developing thesis proposal or conducting their scholarship, performance in coursework, performance in assistantship (if applicable), and preparing for and scheduling their exam(s) (comprehensive; final oral exam).

The procedural requirements and assessment criteria for the annual evaluation will differ by degree sought and the student's graduate program. Description of the procedures for completion of the annual evaluation for master's students and doctoral students in Nutrition is described below.

Students in the Nutrition Graduate Program must demonstrate a breadth of knowledge of nutrition, depth of knowledge in the student's chosen field of nutrition, and must demonstrate that he/she can conceive, execute, and report on original research.

**To these ends, each Nutrition Graduate Student must successfully meet six criteria:**

1. Yearly evaluation by the student's Graduate Committee. (Appendix #1)
2. Yearly evaluation by the major advisor. (Appendix # 2)
3. Submit Program of Study documents to the graduate school:
  - a. For the MS degree: "Master's Program for the Degree of MS"
  - b. For the Ph.D. degree: "Proposed Doctoral Program"
4. Pass all core (required) courses with a B or better.
5. Pass the Oral Preliminary Examination (Ph.D. only). (Appendix #4)
6. Present a written and oral defense of a Master's thesis or a Ph.D. Dissertation and pass the Final Oral Examination. (For MS use Appendix #3; For Ph.D. use Appendix #5)

**B. Dismissal from Graduate School.** Advanced-degree students are expected to make satisfactory progress toward a specific academic degree. This includes maintaining a GPA of 3.00 or better for all courses taken as a graduate student and for courses included in the graduate program, meeting SBPHS and NGP requirements, and participating in a creative activity such as a thesis or dissertation research. If a student is failing to make satisfactory progress toward an academic degree, as determined by the major department/program or the Graduate School, the student may be dismissed from the Graduate School.

In cases where the major professor feels that a student is not making satisfactory progress, this must be documented in either in an annual progress reports (**Appendix # 1 and 2**) and in a letter to the student. The documentation shall also specify goals and timelines by which the student is to demonstrate making satisfactory progress. The student's Graduate Committee is to be engaged in this process: at minimum receiving copies of documentation of the concerns and the progress plan, and ideally being involved in discussions and having input into the progress plan. A letter communicating the decision by the major professor to dismiss a graduate student from the graduate program for failure to make satisfactory progress should be addressed to the Coordinator of the Nutrition Graduate Program and the Chair of the SBPHS and document the basis for determining that the student did not achieve the goals of the progress plan.

Other bases for being dismissed from the graduate program can be found in the Graduate School's Policies Governing All Graduate Programs:

<http://catalog.oregonstate.edu/ChapterDetail.aspx?key=38#Section1816>

**C. Grievance Procedure.** An important goal of Oregon State University is to maintain harmonious relations among students, faculty, and staff. To this end, candid and informal discussions between graduate students and others in the University are encouraged as a means of achieving harmony and of arriving at mutually satisfactory solutions to graduate student problems. The informal discussions can be with the major professor, the Department/School chair, the Graduate Program Coordinator, a member of the graduate student's program committee, and/or another faculty member. Graduate education is based upon a mutuality of interests and respect among faculty and students. It is important that this mutual concern for the quality of education and the persons involved be fostered and preserved.

When a grievance arises relative to the application of the rules, procedures or policies of the SBPHS or Graduate Program, and is not resolved to the satisfaction of the grievant through an informal process, the order of formal appeal will be: (1) major professor, (2) SBPHS chair & Coordinator of the Graduate Program, (3) Graduate School dean, (4) Provost.

All students desiring to appeal matters relating to their graduate education should consult the Grievance Procedures for Graduate Students at Oregon State University [http://oregonstate.edu/dept/grad\\_school/current/grievance.html](http://oregonstate.edu/dept/grad_school/current/grievance.html). Graduate assistants who are not represented by the Coalition of Graduate Employees, American Federation of Teachers Local 6069 who wish to appeal terms and conditions of their employment should also refer to these procedures. Graduate assistants whose terms and conditions of employment are prescribed by the Collective Bargaining Agreement between OSU, OUS, and the Coalition of Graduate Employees, American Federation of Teachers Local 6069 should also refer to that document.

**V. Human Subjects and Animal Use.** According to Oregon State University policy, the University Human Subject Institutional Research Board (IRB) must approve all research involving human subjects. Therefore, if the data to be collected for the research projects involve human subjects, a research proposal must be submitted to the student's graduate advisor prior to submitting the application to IRB. The graduate student should obtain a copy of the Application for the Conduct of Research Involving Human Subjects (available from IRB or on-line at: <http://www.orst.edu/research/RegulatoryCompliance>). After approval by the student's graduate advisor, the application is forwarded to the University committee IRB for final approval.

The institutional Animal Care and Use Committee (IACUC) must approve any form of animal use, and all animal users must be certified by the IACUC. Certification materials and Animal Protocol Review Forms can be obtained from the Animal Care Office or on-line at <http://www.oregonstate.edu/research/animal/use.html>. The graduate student's major advisor must

approve and sign the Animal Protocol prior to submission to the IACUC.

## **VI. GRADUATE ASSISTANTSHIPS, FELLOWSHIPS & SCHOLARSHIPS:**

**A. Teaching Assistantships.** Students with these awards assist faculty in a variety of ways to prepare for, teach, and/or manage undergraduate courses. While doctoral students may be asked to teach courses, master's students usually teach small recitation sections in a large lecture course. Teaching assistantships are available each year on a competitive basis for up to two years of support for master's students and four years for doctoral students.

**B. Research Assistantships.** These awards are available from individual faculty when grant funds allow; the scope and nature of work vary from project to project. Individual faculty recruit students to fill these positions. There are no limits on the number of years research assistantships can be held.

**C. Departmental Fellowships/Scholarships.** These awards are provided to qualified students to help support them while they are in graduate school and/or to help support their research work. These highly competitive awards are valuable to the graduate program because they provide the department with the means of competing for highly qualified candidates for graduate program. These fellowships are awarded annually and are available to both continuing students and students being recruited into the program. The application for these fellowships is: "College of Health and Human Sciences Graduate Fellowship Application Packet" and is available at the website: <http://www.hhs.oregonstate.edu/students/scholarships>. This website also describes the requirements & stipulations for the individual fellowships/scholarships.

**D. Limits on Departmental Support.** Although students may receive financial support from a mix of these resources, the department generally will not provide financial support for any student beyond three years at the master's level and six years at the doctoral level.

Support for research grants is not controlled by the department and is not restricted by these guidelines. **All students are encouraged to seek in-state residency status as soon as possible.**

### **E. ASSISTANTSHIP RESPONSIBILITIES AND PERFORMANCE**

**1. Duties and Responsibilities.** The following is a summary of the duties and responsibilities of graduate assistants within the department:

All teaching assistants and research assistants are expected to report for work at the beginning of the academic year (September 16 through June 15) to the faculty to whom they are assigned. Their term of employment runs for the full academic year for those assigned assistantships for both quarters, or for the full quarter for those assigned an assistantship for a single quarter.

**Graduate assistants must clear vacation time and time away from their assistantship duties with their assigned faculty prior to making plans.** Assistants should remember that they are paid throughout the academic year and are responsible for fulfilling their duties during this time period. This includes the periods of the academic year when classes are not in session (e.g., Winter and Spring Breaks).

All graduate assistants will be assigned to one or more faculty for a set number of hours. Assistants may be asked to maintain logs of hours worked and duties performed. Graduate assistants are required to be available to faculty for the number of hours per week they are

assigned. In some instances, this will require that they keep a flexible schedule. If graduate assistants have outside employment, it is expected that their assistantship responsibilities take precedence.

Normal responsibilities for teaching assistants can include, but not be limited to advising, lecture preparation, lecturing, exam preparation, proctoring exams, grading, supervising group projects, meeting with students, and other relevant activities related to teaching. Teaching assistants should meet with their assigned faculty member(s) prior to the start of classes each quarter to establish what will be required of them.

All teaching assistants are expected to be available to proctor exams according to the schedule established by the department's administrative assistant, even if it is not for a faculty member to whom they are normally assigned. Any deviations from the schedule must be prearranged by the student and approved by the department's administrative assistant.

The duties and responsibilities for research assistants revolve around normal activities involved in conducting research. These can include, but not be limited to library searches, research proposal preparation, laboratory work, instrument development, gathering data, computer work, data analysis, manuscript preparation and writing, and related activities. Research assistants are expected to meet with their assigned faculty member prior to the start of classes to establish what specifically will be required of them.

**2. Performance Review:** Performance reviews for graduate assistants will involve three meetings over the course of the quarter between the graduate assistant and the faculty member(s) to whom he or she is assigned.

The first meeting will take place at the beginning of the quarter. At this time the faculty will explain what is required of the graduate assistant and what criteria will be used to evaluate his or her performance. Students will be asked about their goals for the quarter.

The second meeting will take place at mid-quarter. At this time faculty will provide feedback to the assistant about the performance of his/her duties. Feedback will include a listing of the strengths of the assistant, as well as listing areas where the assistant needs to improve his or her performance. Faculty members have the option of submitting a written performance evaluation to the graduate committee at this time. All written evaluations must be signed and dated by both the faculty member and the graduate assistant. Written evaluations will become a part of the graduate student's file. Graduate students have the option of submitting a written response to the evaluation if they so desire.

The third meeting will take place at the end of the quarter. At this time faculty will complete a written evaluation of the graduate assistant's performance during the quarter. This will include a listing of the strengths of the assistant, as well as listing areas where the assistant needs to improve performance. This written evaluation must be signed and dated by both the faculty member and the graduate assistant. This written evaluation will become a part of the graduate assistant's student file. Graduate assistants have the option of submitting a written response to the evaluation if they so desire.

**3. Reappointment. Students must apply for reappointment to an assistantship for the next academic year by submitting their application for an assistantship by January 31.**

There is no guarantee of reappointment of any assistantship or fellowship awards.

Reappointment to a graduate assistantship is contingent on a number of factors including but not limited to the performance evaluations by the faculty, academic performance, progress in the graduate program, and availability of financial resources.

## VII. Use of Department Equipment, Supplies and Facilities.

All graduate students may use designated typewriters, computers, and printers in the graduate student offices. Students are not to install software on departmental computers without the expressed permission of the department chair. The copy and FAX machines available to the NFM department office are available for use only when authorized by the supervising faculty. Any abuse of these privileges can result in disciplinary action and may result in the student being charged for inappropriate use. Slide projectors, overhead projectors, and VCRs are available for use by graduate assistants for school-related activities authorized by supervising faculty. Supplies such as *SBPHS* letterhead and envelopes, paper, note pads, pens and pencils, etc. can be obtained through the departmental secretary only with the authorization of supervising faculty. The conference room (MLM 115) is available by reservation for conferences, presentations,

**Meetings, or oral defenses.** Reservations are made through the SBPHS secretary. Phones are available for local calls only. Any long distance call must be preapproved by the supervising faculty and the departmental administrative assistant.

**Office Space Assignments.** Office space (Milam), desks, and mailboxes are provided for all graduate students. Room and desk assignments will be made by the department chair or administrative assistant.

## VIII. Where To Go For Help.

If a graduate assistant finds that his or her assistant responsibilities are extending beyond the assigned number of hours, are inappropriate, or has a general concern, then the assistant should first bring up this concern with the faculty member to whom he or she is assigned. If the problem remains unresolved after this step, the student has the option of expressing the concern verbally or in writing to the Graduate Program Coordinator and the SBPHS Director(s). The Program Coordinator and SBPHS Director(s) Chair will act on the concern in a timely manner and work to resolve the problem to the satisfaction of all parties involved. If the graduate student is not satisfied with how the issue is resolved, the student may request that the School Director(s) review the issue. The university has hired an ombudsperson to hear complaints. Her role is to provide informal, impartial, and confidential conflict management for all members of the university community. Details about the office can be found at <http://oregonstate.edu/ombuds/>

## IX. Important Websites:

Nutrition Graduate Program Webpage: <http://health.oregonstate.edu/degrees/graduate/nutrition>

School of Biological and Population Health Sciences: <http://health.oregonstate.edu/bphs>

College of Public Health and Human Sciences Homepage: <http://health.oregonstate.edu/about>

Graduate School Homepage: [http://oregonstate.edu/dept/grad\\_school/](http://oregonstate.edu/dept/grad_school/)

Admissions Department On-Line Application:

<http://health.oregonstate.edu/degrees/graduate/nutrition/apply>

Mentoring at Oregon State University:

[http://oregonstate.edu/dept/grad\\_school/mentoring.php](http://oregonstate.edu/dept/grad_school/mentoring.php)

## **X. Forms obtained from the OSU Graduate School:**

[http://oregonstate.edu/dept/grad\\_school/current/forms.html](http://oregonstate.edu/dept/grad_school/current/forms.html)

1. OSU Graduate School Master's Program for the Degree M.S. (Program of study)
2. OSU Graduate School Proposed Doctoral Program (Program of Study)
3. Event scheduling form
4. OSU Graduate School Report of Preliminary Oral Exam for the Doctoral Degree
5. Checklist for the Graduate School Representative
6. Guidelines for the Graduate Council Representative.
7. OSU Graduate School Report of Final Examination for Advanced Degree.  
This form is used for both M.S. and Ph.D. degrees.

## **XI. Appendices: NGP forms for filing reports**

Appendix #1: Annual overall evaluation of the graduate student by the major advisor

Appendix #2: Annual graduate committee report

Appendix #3: Scoring Guide: MS DEFENSE EXAM in NUTRITION

Appendix #4: Scoring Guide: Ph.D. ORAL PRELIMINARY EXAM in NUTRITION

Appendix #5: Scoring Guide: Ph.D. DISSERTATION DEFENSE EXAM in NUTRITION

## **Appendix #1**

### **Annual Graduate Committee Report Nutrition Graduate Program**

Candidate:  
Degree: (circle one) M.S. Ph.D.

Date of Meeting:

Committee Members:

- 1.
- 2.
- 3.
- 4.
- 5.

Major advisor

Date of Departmental Comprehensive Preliminary Examination (Ph.D. only):

Progress in Research:

Include the following in the student's progress in thesis research:

1) specific aims of the project; 2) percent completion of the aims.; 3) anticipated completion of research; 4) has there been any change in the aims since the last meeting? 5) has the student developed a mastery of techniques for their research; 6) has the student done a literature survey, published manuscripts on their research, attended/presented at national meetings, initiated thesis writing?

Major advisor's summary of overall progress:

Student's comments

Signatures of Graduate Committee Members

Signature of Student

## Appendix #2

### **Annual Overall Evaluation of the Graduate Student by the Major Advisor Nutrition Graduate Program**

This report also serves as an annual evaluation of the student's overall progress.

Candidate's Name:

Major Professor:

- A. Provide a statement describing the adequacy of the candidate's progress in coursework and research during the past year.
- B. Does the candidate have deficiencies that could hinder normal progress toward obtaining his/her degree? If so, describe these deficiencies and suggest remedial action.
- C. What is the likelihood for financial support during the next academic year, beginning September \_\_, 20\_\_: Circle one:    Likely    Not Likely.

If the student is currently on an assistantship, please answer one of the following questions

\_\_\_ 1. Will the assistantship be renewed?    Yes    No

\_\_\_ 2. The assistantship will be renewed provided the conditions specified below are met.

\_\_\_ 3. The assistantship will not be renewed for the following reason(s):

Signature of the Major Professor \_\_\_\_\_ /Date \_\_\_\_\_

Signature of the Student \_\_\_\_\_ /Date \_\_\_\_\_

Note: A copy of this statement is to be given to the student as part of their annual evaluation. The original is to be kept in the student's file.

## Appendix #3

### Scoring Guide (Rubric) for Graduate Learning Outcome Assessment

Nutrition Graduate Program  
College of Public Health and Human Sciences

### MS DEFENSE EXAM in NUTRITION

Candidate Name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of Thesis: \_\_\_\_\_

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. <b>Problem Definition:</b> Has stated the research problem clearly, providing rationale for undertaking the research			
2. <b>Literature and Previous Work:</b> Demonstrated sound knowledge of literature in the area, and of prior work on the specific research problem			
3. <b>Impact of Research:</b> Demonstrated the potential value of solution to the research problem in advancing knowledge within the area of study			
4. <b>Solution Approach:</b> Has applied sound state-of-the-art research methods/tools to solve the defined problem and has described the methods/tools effectively			
5. <b>Results:</b> Analyzed and interpreted research results/data effectively			
6. <b>Quality of Written Communication:</b> Communicated research results clearly and professionally in <b>written</b> form			
7. <b>Quality of Oral Communication:</b> Communicated research results clearly and professionally in <b>oral</b> form			
8. <b>Critical Thinking:</b> Has demonstrated capability for independent research in the area of study and expertise in the area			
9. <b>Broader Impact:</b> Demonstrated awareness of broader implications of the concluded research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.			
10. <b>Publications:</b> Journal or conference publications have resulted (or are anticipated) from this research			

**Overall Assessment:** The assessment of the overall performance of the candidate based on the evidence provided in items 1 – 10 above.

CRITERIA	PERFORMANCE RATINGS for THESIS EXAM		
	<i>Does NOT PASS Exam</i>	<i>PASSES Exam</i>	
OVERALL, My rating of the Thesis indicates that it:	Does not meet expectations	Meets expectations	Exemplary performance

Name of the Examining Committee Member: \_\_\_\_\_

Signature of the Examining Committee Member: \_\_\_\_\_

**Examiner: Please use the reverse side of this form for written commentary as needed.**

## Appendix #4

Scoring Guide (Rubric) for Graduate Learning Outcome Assessment

Nutrition Graduate Program  
College of Public Health & Human Sciences

### Ph.D. ORAL PRELIMINARY EXAM in NUTRITION

Candidate Name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of Thesis: \_\_\_\_\_

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. <b>Problem Definition:</b> Stated the research problem clearly, providing motivation for undertaking the research			
2. <b>Literature and Previous Work:</b> Demonstrated sound knowledge of literature in the area, and of prior work on the specific research problem			
3. <b>Impact of Proposed Research:</b> Demonstrated the potential value of the proposed solution to the research problem in advancing knowledge within the area of study			
4. <b>Solution Plan:</b> Provided a sound plan for applying state-of-the-art research methods/tools to solving the defined problem and shows a good understanding of how to use methods/tools effectively			
5. <b>Expected Results:</b> Provided a sound plan for analyzing and interpreting research results/data			
6. <b>Quality of Written Communication:</b> Communicated research proposal clearly and professionally in <b>written</b> form			
7. <b>Quality of Oral Communication:</b> Communicated research proposal clearly and professionally in <b>oral</b> form			
8. <b>Critical Thinking:</b> Demonstrated capability for independent research in the area of study, preparedness in core disciplines relevant to research, and ability to complete the proposed research			
9. <b>Broader Impact:</b> Demonstrated awareness of broader implications of the proposed research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.			

**Overall Assessment:** The assessment of the overall performance of the candidate based on the evidence provided in items 1 – 9 above.

CRITERIA	PERFORMANCE RATINGS for PRELIMINARY EXAM		
	<i>Does NOT PASS Exam</i>	<i>PASSES Exam</i>	
OVERALL, My rating of this preliminary exam indicates that it:	Does not meet expectations	Meets expectations	Exemplary performance

Name of the Examining Committee Member: \_\_\_\_\_

Signature of the Examining Committee Member: \_\_\_\_\_

**Examiner:** Please use the reverse side of this form for written commentary as needed.

## Appendix #5

### Scoring Guide (Rubric) for Graduate Learning Outcome Assessment

Nutrition Graduate Program  
College of Public Health and Human Sciences

### Ph.D. DISSERTATION DEFENSE EXAM in NUTRITION

Candidate Name: \_\_\_\_\_ Date: \_\_\_\_\_

Title of Thesis: \_\_\_\_\_

Evaluation/Guidance	Does not meet Expectations	Meets Expectations	Exemplary Performance
1. <b>Problem Definition:</b> Has stated the research problem clearly, providing rationale for undertaking the research			
2. <b>Literature and Previous Work:</b> Demonstrated sound knowledge of literature in the area, and of prior work on the specific research problem			
3. <b>Impact of Proposed Research:</b> Demonstrated the potential value of solution to the research problem in advancing knowledge within the area of study			
4. <b>Solution Approach:</b> Has applied sound state-of-the field research methods/tools to solve the defined problem and has described the methods/tools effectively			
5. <b>Results:</b> Analyzed and interpreted research results/data effectively			
6. <b>Quality of Written Communication:</b> Communicated research results clearly and professionally in <b>written</b> form			
7. <b>Quality of Oral Communication:</b> Communicated research results clearly and professionally in <b>oral</b> form			
8. <b>Critical Thinking:</b> Has demonstrated capability for independent research in the area of study and expertise in the area			
9. <b>Broader Impact:</b> Demonstrated awareness of broader implications of the concluded research. Broader implications may include social, economic, technical, ethical, business, etc. aspects.			
10. <b>Publications:</b> Journal or conference publications have resulted (or are anticipated) from this research			

**Overall Assessment:** The assessment of the overall performance of the candidate based on the evidence provided in items 1 – 10 above.

CRITERIA	PERFORMANCE RATINGS for THESIS EXAM		
	<i>Does NOT PASS Exam</i>	<i>PASSES Exam</i>	
OVERALL, My rating of the Thesis indicates that it:	Does not meet expectations	Meets expectations	Exemplary performance

Name of the Examining Committee Member: \_\_\_\_\_

Signature of the Examining Committee Member: \_\_\_\_\_

**Examiner: Please use the reverse side of this form for written commentary as needed.**