

**PhD and Postdoctoral Student Handbook
Department of Medical Informatics and Clinical Epidemiology
2020-2021**

Oregon Health & Science University



Table of Contents

Who to go to.....	3
Expectations.....	3
Tuition/Fee Statements	3
Course Registration.....	3
Tracking Benchmarks	4
On-campus requirement.....	4
Postdoctoral Fellowship Time Off Guidelines.....	4
NIH Grants Policy Statement	5
Obtaining an ORCID	6
Obtaining an External ID (EID).....	6
Obtaining an NIH eRA Commons ID.....	6
Study Space	6
Required Compass Training	6
Other Required Training	7
Diversity Training Requirement.....	8
Preparing Grant Applications.....	8
Individual Fellowship Grants from NIH (F Grants)	8
F31 Funding.....	8
NLM Scientific Program Contacts	8
Creating a public presence.....	10
Etiquette Policy	10
Career & Professional Development Services	10
Meeting with the advisor.....	10
Semiannual Meetings with the Dissertation Advisory Committee (DAC)	10
Semiannual Meetings with the Thesis Advisory Committee (TAC)	11
Travel and Discretionary Funding	11
Health Insurance	11
Tax Implications for Funded PhD Students.....	12
Internal Revenue Code on Taxability of Scholarships and Fellowships	12
Form 1099	12
APPENDIX A PhD Student Expectations	13
APPENDIX B Postdoctoral Student Expectations	16
APPENDIX C National Library of Medicine (NLM) Funded Students.....	19
APPENDIX D NLM Request for Funding Policy and Forms	24
APPENDIX E Citing and Submitting Grant-Funded Publications and Presentations	28
APPENDIX F Mentorship Agreement	30
APPENDIX G Core Competencies in PhD BCB	32
APPENDIX H Core Competencies in PhD HCIN.....	39

Who to go to...

Andrea Ilg – stipend information, laptops, tuition questions, space, requests for funding, web page set-up – ilgan@ohsu.edu

Lynne Schwabe – xTrain, appointment forms, ACGME CI Fellows, vacation – schwabel@ohsu.edu

Monica Garlough - textbooks, travel, reimbursements – garlough@ohsu.edu

Alicia Nam –ID badges and healthcare coverage (postdocs only) – nama@ohsu.edu

Diane Doctor – all things related to coursework, progress and graduation – doctord@ohsu.edu

Kathryn Pyle – applying for grants – pylek@ohsu.edu

Virginia Lankes – Career Specialist, Individual Development Plans (IDPs) – lankes@ohsu.edu

Karen Eden – faculty lead for fellows and PhD students – edenk@ohsu.edu

Emily Hillhouse – Student Learning Support Specialist – hillhous@ohsu.edu

Office of Postdoctoral Affairs – opa@ohsu.edu

Jennifer Cai, Wellness Coordinator, Joseph B. Trainer Health & Wellness Center – caije@ohsu.edu

Student Health and Wellness Center – SHW@ohsu.edu

Expectations

All PhD and postdoctoral students must meet certain expectations each year to remain in good standing in the biomedical informatics program. These expectations include regular attendance at presentations by student, faculty and guest speakers; presenting and moderating annually in BMI 505F/605F Reading & Conference (“Fellows Meeting”); and meeting the educational requirements of the respective degree programs. For a detailed listing of these requirements, see Appendix A *PhD Student Expectations* and Appendix B *Postdoctoral Student Expectations*.

Tuition/Fee Statements

Students will receive an electronic tuition and fees statement during the second week of the term.

Course Registration

PhD and postdoctoral students are expected to take all classes on campus, unless a class is offered online only. PhD students must maintain full-time status (9 credits) for fall, winter and spring quarters. Students must maintain at least part-time status (5 credits) for summer. Postdoctoral students in the certificate program or who are non-degree-seeking are *not* subject to these registration requirements.

All fellows and PhD students are required to take BMI 505F/605F Reading & Conference (“Fellows Meeting”) every fall, winter and spring (1 credit each term). Students are required to give a research presentation in this class and moderate a session once each year. PhD students are required to take a total of 10 credits (and 10 terms) of BMI 605F. Other iterations of BMI 605 Reading & Conference (other than the Fellows Meeting) do not apply to this requirement. Students are encouraged to continue taking the class even when they have met the 10-credit requirement. They are excused from the class during their final term, when they defend their dissertations.

Students with fewer than 10 terms of participation may be excused from the class during the term they defend, but must request approval in advance from the PhD committee. The student's mentor must provide a statement confirming intention to defend during the specified term. If students need to miss a term prior to the defense term, they must request approval in advance by providing written justification for the absence to the PhD committee. The students will still be required to complete 10 terms. (Some MS students who transfer into the PhD program may graduate before completing 10 terms of the class.)

Postdoctoral students in the certificate or master's programs are required to take BMI 505F Reading & Conference ("Fellows Meeting") every fall, winter and spring as long as they are in the program (including the defense term). A student volunteer will act as the class coordinator each term, will schedule weekly presentations, and will take attendance. Two DMICE faculty members (one from each track) facilitate the course each term.

Tracking benchmarks – PhD Candidates

At the recommendation of the PhD Committee, we have developed a list of Benchmarks to assist PhD Candidates and their committees to evaluate their progress post-qualifying exams. The report is in the form of an Excel spreadsheet and will be uploaded to *Box*, the cloud storage option available for all OHSU faculty, staff and students: <http://www.ohsu.edu/blogs/researchnews/2014/08/05/cloud-storage-now-available-for-ohsu-researchers/>. This page includes instructions for setting up a Box account if you do not already have one. Box should work with all browsers. If you have a Box account that uses your OHSU email address, go to <https://ohsu.box.com> to log in through the OHSU gateway. This page on the ITG website includes instructions for accessing Box from an iPhone or iPad: <https://o2.ohsu.edu/information-technology-group/help-desk/it-help-pages/box-at-ohsu.cfm> . For support, contact the ITG Help Desk at 503 494-2222.

Once you have passed your qualifying exams, please log into *Box* and update your Benchmarks as you complete them. The report will be visible to you, your advisor, your committee members, Dr. Eden, and Diane Doctor (your "Collaborators").

On-campus requirement

All PhD and postdoctoral students are required to complete their training onsite. Requests to study offsite for longer than one quarter must be approved by the student's advisor and by the program director. Students are required to attend master's and PhD proposal defenses, thesis and dissertation defenses, and informatics conferences **in person**. Students may view presentations via livestream when they are traveling. PhD students should download all relevant materials from Sakai at the end of each term and save them to a local drive in order to prepare for the comprehensive exam.

OHSU Biomedical Informatics

Postdoctoral Fellowship Time Off Guidelines

All Postdoctoral Fellows appointed to the National Library of Medicine training grant will follow the policy below when taking time off.

11.3.16 Other Terms and Conditions

11.3.16.1 Leave

Note: The leave durations stated below apply to full-time trainees. Short-term trainee leave must be proportionally adjusted based depending on the duration of appointment.

In general, trainees may receive **stipends** during the normal periods of vacation and holidays observed by individuals in comparable training positions at the sponsoring institution. For the purpose of these awards, however, the period between the spring and fall semesters is considered to be an active time of research and research training and is not considered to be a

vacation or holiday. Trainees may receive **stipends** for up to 15 calendar days of sick leave per year. Under exceptional circumstances, this period may be extended by the NIH awarding **IC** in response to a written request from an AOR. Sick leave may be used for the medical conditions related to pregnancy and childbirth. Trainees may receive **stipends** for up to 60 calendar days (equivalent to 8 work weeks) of parental leave per year for the adoption or the birth of each child. Either parent is eligible for parental leave. Kirschstein-NRSA trainees and fellows must provide advanced notification to the grantee institution prior to taking parental leave. Notification of supervisors and others about plans to use leave must be consistent with the organization's policy and must be consistently applied regardless of the source of funds. A period of terminal leave is not permitted, and payment may not be made from traineeship funds for leave not taken. Trainees requiring periods of time away from their research training experience longer than specified here, i.e., more than 15 calendar days of sick leave or more than 60 calendar days of parental leave, must seek approval from the NIH awarding component for an unpaid leave of absence. Approval for a leave of absence must be requested in advance by an AOR on behalf of the trainee. Trainees supported by academic institutions should refer to the NIH Institutional NRSA training grant guidelines in the NIH Grants Policy Statement for further guidance regarding vacations and requested leave.

Vacations and Holidays. Trainees may receive the same vacations and holidays available to individuals in comparable training positions at the recipient organization. Trainees will continue to receive **stipends** during vacations and holidays. At academic institutions, the time between semesters or academic quarters generally is considered an active part of the training period and is not considered to be a vacation or holiday.

Sick Leave and Other Leave. Trainees may continue to receive **stipends** for up to 15 calendar days of sick leave per year. Under exceptional circumstances, this period may be extended by the NIH awarding **IC** in response to a written request from an AOR. Sick leave may be used for the medical conditions related to pregnancy and childbirth.

Parental Leave. Trainees may receive **stipends** for up to 60 calendar days (equivalent to 8 work weeks) of parental leave per year for the adoption or the birth of each child. Either parent is eligible for parental leave. Kirschstein-NRSA trainees and fellows must provide advanced notification to the grantee institution prior to taking parental leave. Notification of supervisors and others about plans to use leave must be consistent with the organization's policy and must be consistently applied regardless of the source of funds.

Terminal Leave. A period of terminal leave is not permitted, and payment may not be made from grant funds for leave not taken.

Unpaid Leave. Individuals requiring extended periods of time away from their research training experience, that is, more than 15 calendar days of sick leave or more than 60 calendar days of parental leave, must seek approval from the NIH awarding **IC** for an unpaid leave of absence. A request letter must be submitted by the AOR, signed by the trainee as well as the training grant PD/PI.

For more information on the NIH policy, see

https://grants.nih.gov/grants/policy/nihgps/html5/section_11/11.3.16_other_terms_and_conditions.htm

HOLIDAYS, TIME-OFF, AND LEAVES OF ABSENCE

12.1 Holidays

1. GRs are entitled to the following holidays:

- (a) New Year's Day on January 1.
- (b) Martin Luther King's Birthday on the third Monday in January.
- (c) President's Day on the third Monday in February.
- (d) Memorial Day on the last Monday in May.
- (e) Independence Day on July 4.
- (f) Labor Day on the first Monday in September.
- (g) Thanksgiving Day on the fourth Thursday in November.

-14-

(h) Christmas Day on December 25.

2. If the holiday listed above falls on a Saturday, then the preceding Friday will be recognized as the holiday. If the holiday falls on a Sunday, then the following Monday will be recognized as the holiday.

3. Even though classes are not in session in between academic terms, GRs are expected to continue their research training during these periods unless they take paid time-off or are on academic leave of absence.

Biomedical Informatics

Pre-doctoral Time off/GRU Contract

12.2 Time Off

1. In addition to normal holidays (Section 12.1 above) GRs may take up to 20 days of paid time-off each academic year (July 1-June 30). Paid time-off days may be used for any purpose including illness or vacation. Up to 10 days of paid time-off unused during an academic year may be carried over to the next year to a maximum of 30 days of accumulated paid time-off. There will be no cash-out or payment for unused paid time-off.

2. Paid time-off days will be tracked as directed by OHSU and will accumulate at the rate of 0.769 days per pay period. Time-off shall be applied to all research training activity regardless of whether it constitutes employment.

3. A GR and faculty/mentor/programs are expected to be responsible, reasonable and flexible when scheduling time off. Using paid time-off does not excuse a GR from making academic progress toward their degree and does not excuse the GR as a student or an assistant from attending classes or meeting course requirements during the term.

4. After exhausting paid time-off, a GR may request additional time-off, which will be without pay.

12.3 Leaves of Absence

1. Academic leave of absence:

(a) A GR on approved academic leave of absence per OHSU policy, for medical reasons on the advice of a physician, will be covered by health insurance for 12 weeks.

(b) A GR may apply unused paid time-off concurrently with the running of

approved academic leave of absence.

2. GRs (subject to the terms of the grant funding the stipend) will be offered eight (8) weeks of reduced expectation for new parents (by birth or adoption), during which time the GR maintains continuous enrollment in nine (9) credits and continues to receive stipends and benefit coverage. Generally, GRs are expected -15-

to read papers and continue limited participation in lab activities remotely as agreed to by the PI and GR in advance to fulfill the reduced expectations.

3. The Union acknowledges that GRs do not meet the eligibility requirements for coverage under Oregon Family Leave Act (ORS 659A.150 to 659A.186) or the federal Family and Medical Leave Act. (29 U.S.C. § 2601 et seq.).

In addition to this policy, OHSU and DMICE require the following:

1. Pre-doctoral and Postdoctoral Fellows will communicate and receive approval from Faculty Mentor when requesting time off. Vacation time needs to be approved prior to taking the time off.
 - a. Pre-doctoral and Postdoctoral Fellows will report vacation time to DMICE Administrative staff bi-monthly to DMICEtk@ohsu.edu
 - b. Pre-doctoral and Postdoctoral Fellows will report sick time to DMICE Administrative staff bi-monthly to DMICEtk@ohsu.edu
2. Request for time off, outside of the above parameters, will need mentor and program approval before taking the time off
3. Failure to adhere to these guidelines may result in termination of fellowship appointment.
4. Change of address: if a student moves while in the program, in addition to changing their address with Payroll (prstipends@ohsu.edu) and in the Student Information System (SIS), they must also change it with Accounts Payable (stipends@ohsu.edu).

ORCID ID's are now required for ALL OHSU Graduate Students

ALL OHSU Graduate Students (certificate, master's and PhD) are required set up an ORCID account and notify the program/Graduate Studies of their ORCID identifier number by the end of the term. In addition, if you receive funding from NIH (for example, having an NIH Fellowship or being on a training grant or a career development award), you must also list your ORCID in your NIH Commons personal profile, or we will not be able to process your X-Train appointment.

ORCID is an online product that provides a persistent digital identifier that distinguishes researchers uniquely; is integrated in key research workflows such as manuscript and grant submission, and supports automated linkages between researchers and professional activities. ORCID Registry is free of charge, easy to set up, curate and publish, and allows varying levels of privacy. Each student should insure that all current and future grants, publications, and manuscripts have their ORCID number added. The use of ORCID will allow easier tracking of publications and grants for each student, both while a student and after graduation, as required by NIH.

Set up your account at <http://orcid.org/> . Save the number in a place where you can retrieve it as you will need to include it on specific Grad Studies forms in the future.

Report your ORCID to Graduate Studies via the survey at <https://www.surveymonkey.com/s/3L5VD7W>

Questions on ORCID? Contact Jackie Wirz wirzj@ohsu.edu or Robin Champieux champieu@ohsu.edu
Questions regarding the Graduate Studies requirement? Contact goranflr@ohsu.edu

Obtaining an External ID (EID)

All new NLM trainees are required to request an External ID (EID) via the O₂ Human Resources website on this page: <https://o2.ohsu.edu/human-resources/employee-records/updating-employee-records/hr-actions/po-external.cfm> . You must have your OHSU network ID in order to request an EID. You will receive your OHSU network ID 30 days before the beginning of the term.

Obtaining an NIH eRA Commons ID

All students who are funded by NIH, whether on a training or a research grant, must obtain an eRA Commons ID. To request an eRA Commons ID, fill out the form on this page: <http://ozone.ohsu.edu/research/rda/rgc/gcfastlaneform.shtml>

Study Space

All PhD and postdoctoral students have access to the shared cubicles and the printer in BICC 527.

Required Compass Training

All students are required to complete the following training modules in Compass:

- CITI Responsible Conduct of Research (RCR): Log in with your OHSU network ID at <https://www.ohsu.edu/idp/Authn/UserPassword>
- CITI Human Subjects Research (HSR): if you participate in research on any human subjects project
- Information Privacy and Security (IPS) Essentials
- Integrity Foundations
- Integrity Booster
- Emergency Management Foundations

See <https://ohsu.csod.com/client/ohsu/default.aspx> for all of the above modules. Click on “OHSU employees and students, [click here to log in](#)” on that page. Log in with your network ID and password. Be sure to turn off the pop-up blocker before you take the training. You will have the option to print out your certificate but it is not necessary to do so. The training will automatically be stored in your record by the Office of Integrity.

Other Required Training

- Conflict of Interest in Research (COIR) disclosure form at <https://bigbrain.ohsu.edu/coi/>. Please select the Researcher role. This form must be submitted annually. You will receive a reminder from the COIR department when your COIR documents are about to expire. If you need any assistance with this, please contact Hilde Wette or Brook Miller at the OHSU Research Integrity Office. The number is 503 494-7887 option #1.
- Avoiding Plagiarism by Citing Your Sources
You can access this training module on the “Current Students/Student Resources” link on the DMICE website: <http://www.ohsu.edu/xd/education/schools/school-of-medicine/departments/clinical-departments/dmice/current-students/student-resources/index.cfm>. Click on the “Avoiding Plagiarism by Citing Your Sources” link. When you have successfully completed the training,

send your confirmation certificate to me at doctord@ohsu.edu.

Diversity Training Requirement

OHSU values the contributions of all its employees, patients, students, and volunteers and honors diversity in all respects. As stated on the OHSU Center for Diversity & Inclusion web site, “Integrating diversity within all areas of the university and all parts of our mission is critical to OHSU's strategic goal of being a great organization, diverse in people and ideas.”

As part of our departmental Diversity Action Plan, we ask all DMICE faculty, staff and students to participate in at least two events or activities that promote diversity within the workforce, education or patient care during each fiscal year (July through June) in order to become better educated about inclusion and improve the atmosphere of diversity at OHSU.

How to identify diversity training events? The OHSU Center for Diversity & Inclusion (<https://www.ohsu.edu/center-for-diversity-inclusion>) lists upcoming events. We will also try to publicize specific diversity training events through the DMICE group email list.

You may want to find opportunities on your own to fulfill this requirement. In addition to local events, some options are NIH webinars or talks on diversity posted on YouTube. Reading a book on a diversity topic would work as well.

Please keep track of the diversity events in which you participate. We will ask DMICE faculty, staff and students near the end of each fiscal year to report on their activities so we can include them in our departmental Diversity Action Plan report.

Preparing grant applications

Once PhD students have completed two years of coursework, they are encouraged to submit a grant application the following year. This grant writing experience will jumpstart the dissertation proposal process and, if awarded, looks very impressive on a CV. When applying for any type of grant whether internal to OHSU (such as the Tartar Trust Fellowship) or external, contact Kathryn Pyle at least two (2) months before the grant deadline at pylek@ohsu.edu.

All PhD students are required to take BMI 552A/652A and BMI 552B/652B Research in Bioinformatics, in which students will prepare a grant proposal following F31 grant guidelines (see below). By the end of this class, students will have developed a rough draft of a proposal that could be further refined and used when applying for a grant. Students are encouraged to take the Vollum Writing Course on the OHSU campus. The course includes six individual meetings with the instructor with the goal of helping students complete manuscripts and grant proposals. The cost is \$500. If students have discretionary funds, they may be used for this purpose. For details, see <https://www.ohsu.edu/research-development/career-development-researchers>.

Individual Fellowship Grants from NIH (F Grants)

One option for funding is an individual fellowship from NIH, also known as an F grant. To receive an F award, the student's primary mentor must already have an active research grant (including but not limited to NIH grants). There are three types of individual predoctoral grants available:

1. F31: individual predoctoral fellowship: PA-16-309
<http://grants.nih.gov/grants/guide/pa-files/PA-16-309.html>
2. F31: individual predoctoral fellowship to promote diversity: PA-16-308
<http://grants.nih.gov/grants/guide/pa-files/PA-16-308.html>
3. F33: individual predoctoral fellowship for MD/PhD students: PAR-16-305
<http://grants.nih.gov/grants/guide/pa-files/PA-16-305.html>

Students can receive an F31 award from any of 23 centers and institutes at NIH, including the National Library of Medicine (NLM). NLM supports research career development in clinical/public health informatics, bioinformatics, translational informatics and consumer health informatics. Informatics is defined as the intersection of computer, information, biomedical and behavioral sciences with one or more application domains. Application domains of interest include health care delivery, basic biomedical research, clinical and translational research, public health and others.

The purpose of an F31 award is to enable promising predoctoral (PhD) students to obtain individualized, mentored research training from outstanding faculty sponsors while conducting dissertation research in scientific health-related fields relevant to the missions of the participating NIH Institutes and Centers. The training plan should document the need for, and the anticipated value of, the proposed mentored research and training in relationship to the individual's research career goals. The training plan should also facilitate the student's transition to the next stage of their research career.

Applicants for the F31 must be at the dissertation research stage of training at the time of the award, which usually occurs 8 months after proposal submission, and have identified a dissertation research project and sponsor(s) who will mentor and supervise the training. The primary sponsor must be an active investigator in the area of proposed training and must document availability of sufficient research funds and facilities for high-quality research training. The applicant can have more than one sponsor but one must be listed as the primary.

The applicant must be a US citizen or permanent non-citizen national, must hold a baccalaureate degree and must be enrolled in a PhD program. The F31 usually provides 2-3 years of funding, but may provide up to 5 years.

Due dates for the F31 are April 8, August 8, or December 8, with the earliest start date (about 8 months later) of December, April, or July.

F31 Funding:

Current Predoctoral Stipend Level (federal FY17): \$23,844. NOTE: DMICE will supplement this to match the OHSU stipend level.

Tuition/Fees: 60% of level requested by applicant institution, up to \$16,000 per year

Institutional Allowance: \$4,200 (would cover health insurance, research supplies, travel, etc.).

There are no Facilities and Administrative costs (F&A) on individual fellowships.

NLM Scientific Program Contacts:

- Clinical and Public Health Informatics: Hua-Chuan Sim, MD Phone: 301-594-4882 Email: simh@mail.nih.gov
- Translational and Bioinformatics: Jane Ye, PhD Phone: 301-594-4882 Email: yej@mail.nih.gov
- Consumer Health Informatics: Alan VanBiervliet, PhD Phone: 301-594-4882 Email: alan.vanbiervliet@nih.gov

Creating a public presence

Students are encouraged to create a public-facing website that includes information about their education, research interests, publications and awards. LinkedIn and Google Scholar are important tools both academically and professionally. In addition, the departmental website includes a page for each student to upload a photo as well as educational, research and publication information. See Andrea Ilg for details on how to access this page.

Etiquette Policy

Please use professional etiquette when communicating with peers and the instructor. This means avoiding aggressive or offensive language, showing respect for others' opinions and positions, and conducting yourself as if you were face to face with them. Please pay special attention to etiquette in class forums and when using email. If you notice someone violating this policy, please make the instructor and TA aware of the problem.

Career & Professional Development Services

Virginia Lankes, Career Development Specialist, provides assistance to biomedical informatics students with:

- Professional skill development
- Resume/CV preparation
- Career planning
- Individual Development Plan (IDP)

Virginia will be meeting with you in December or January to review your Individual Development Plan. Students have found this experience extremely helpful in developing a career focus and plan of action. Feel free to contact her at any time at lankes@ohsu.edu.

Meeting with the advisor

All students should bring the *Biomedical Informatics Mentorship Agreement* to each (virtual or in-person) meeting with your advisor (see "Forms" page on the DMICE website). We recommend that all students establish a regular schedule of meetings with their advisors early in the year. The agreement is to help advisors and advisees set up mutual expectations for the year and to establish benchmarks for assessing progress in the program. This form is to be used only until the MS student has formed a Thesis Advisory Committee (TAC) and until the PhD student has formed a Dissertation Advisory Committee (DAC). At that time, the *Meeting Summary Form* developed by the Office of Graduate Studies must be completed at each meeting (see below).

Semiannual Meetings with the Dissertation Advisory Committee (DAC)

All PhD Candidates (post-qualifying exam) are required to meet with their Dissertation Advisory Committee (DAC) twice each year. Meetings will be conducted in April and October of each year. The

April meeting will be an annual review attended by the student, the committee, the Associate Director of the PhD Program, and the program administrators. Continued funding for the subsequent year (if applicable) is dependent on a demonstration of adequate progress in the training program. The October meeting will be arranged by the student and will be attended by the student and their committee. A Meeting Summary Form must be completed and signed following both the April and October meetings. This form will be sent to the Office of Graduate Studies and will become part of the student's record. For more information, see the *Dissertation Advisory Committee Guidelines* and the *Meeting Summary Form* on the Graduate Studies website at: <http://www.ohsu.edu/xd/education/schools/school-of-medicine/academic-programs/graduate-studies/admin-resources.cfm>.

Semiannual Meetings with the Thesis Advisory Committee (TAC)

All MS students are required to name a thesis mentor and form a Thesis Advisory Committee (TAC) within nine months of matriculation. They are required by SOM to meet with their TAC *at least once every six months* to update their committee on the status of their research. Additional meetings may be scheduled by the student or by members of a TAC to ensure the student's progress toward successful completion of the MS thesis. A Meeting Summary Form must be completed after every meeting. This form is sent to the Office of Graduate Studies and will become part of the student's record.

Travel and Discretionary Funding

NLM Predoc Fellows receive funding to attend the NLM Training Meeting each June. All trainees are required to share hotel rooms in order to minimize costs. Expenses incurred for additional travel added on to an NLM meeting are not reimbursable. Requests for Funding to attend other meetings will be evaluated on a case-by-case basis and must be submitted prior to travel.

NLM Fellows receive discretionary funding in the amount of \$1,000.00 per year. This funding should cover costs related to training (required and recommended textbooks, software, etc).

Expenses outside the above require a Request for Funding submission to be evaluated on a case-by-case basis and must be submitted prior to purchases.

PhD students who are funded by sources other than NLM may receive travel funds to support attendance at one or more national meetings each year. Self-pay students are encouraged to apply for travel funding from external sources. Students who are invited to present at national meetings should submit a funding request to cover conference registration, using the form at the end of the Handbook.

PhD students who are funded by sources other than NLM may receive discretionary funding as part of their training. The use of these funds is at the discretion of the Principal Investigator on the grant. Students should refer to the Central Financial Services (CFS) reimbursement timeframe below to ensure reimbursement of both travel and discretionary expenses. If students do not follow these guidelines (submit within 30 days after travel), funds received will not be considered reimbursement but will be taxed as income. The complete CFS Reimbursement Policy & Procedure document is available here: <https://o2.ohsu.edu/central-financial-services/documents/upload/reimbursements-policy.pdf>. See Section VI "Reporting Time Frame—Employees" for reimbursement details and deadlines.

For information about allowable travel expenses, refer to the OHSU Travel Handbook. See **Section 12: Travel** on this page: <https://o2.ohsu.edu/central-financial-services/forms-and-policies/#accountsPayable>.

Health Insurance

All on-campus students are required to maintain major medical and dental health insurance. Enrollment is automatic at the start of your program. The current Student Health Insurance carrier is PacificSource.

Waivers and Deadlines: A student insurance waiver attestation form, which describes the waiver requirements, can be obtained from the JBT Health & Wellness Center website (www.ohsu.edu/jbt-health). Waiver deadlines are strictly enforced and as a new student, you have 30 days after your initial classes begin to apply.

All returning students for Fall of 2018 will be required to submit a waiver online prior to the Fall term waiver deadline. More information about the Fall of 2018 waiver process will be available on the JBT website (www.ohsu.edu/jbt-health) soon.

Students matriculating Summer, Winter or Spring term should contact JBT Health about submitting a waiver. *If a student does not submit a waiver form, they will be billed for OHSU-provided insurance.* Questions? Contact JBT Student Health at askjbthealth@ohsu.edu or call (503) 494-8665.

Tax Implications for Funded PhD Students

Please contact a CPA for tax related information. Excerpts from the Official Statement from NLM/NIH follow.

Internal Revenue Code on Taxability of Scholarships and Fellowships

Section 117 of the Internal Revenue Code (26 U.S.C. 117) applies to the tax treatment of scholarships and fellowships. In general, degree candidates may exclude from gross income (for tax purposes) any amount used for qualified tuition and related expenses such as fees, books, supplies, and equipment required for courses of instruction at a qualified educational organization. Non-degree candidates are required to report as gross income any monies paid on their behalf for stipends or any course tuition and fees required for attendance.

The IRS and Treasury Department released regulations in January 2005 (Revenue Procedures 2005-11) clarifying the student exception to the FICA (Social Security and Medicare) taxes for students employed by a school, college, or university where the student is pursuing a course of study.

The interpretation and implementation of the tax laws are the domain of the IRS and the courts. Individuals should consult their local IRS office about the applicability of the law to their situation and for information on their tax obligations.

Form 1099

Although stipends are not considered salaries, these funds are subject to Federal and, sometimes, State income tax. Such income may be reported by the sponsoring institution on IRS Form 1099, Statement of Miscellaneous Income. Normally, the business office of the sponsoring institution will be responsible for annually preparing and issuing IRS Form 1099 for fellows paid through the institution (fellows at domestic non-Federal institutions). Sponsoring institutions are not required to issue a Form 1099, but it is a useful form of documentation of funds received and it serves as a reminder to the fellow that some tax liability may exist.

The Graduate Student Organization (GSO) invites a speaker to present on the topic of the tax implications of stipends and grant funding. For more information, see the GSO blog at <http://ohsugso.blogspot.com/>.

APPENDIX A

2020-2021 PhD Student Expectations

All students are required to present and serve as the moderator at least once per year at BMI 505F/605F (weekly PhD/Postdoc meetings). The presentation should include either a critique of medical literature or background slides for the student's current research.

In-person attendance is required at:

1. 80% of weekly PhD/Postdoc meetings
2. 80% of Thursday Informatics conferences
3. Thesis and dissertation proposal defenses and final defenses scheduled on Thursdays
4. Annual NLM Fellowship Training meeting (for those on NIH Fellowship such as NLM, NIEHS, NEI, etc.)
5. Open House – at least 1 per year
6. OHSU Research Week

Year 1 Expectations

Required to present at:

1. BMI 505F/605F “Fellows Meeting”
2. One Open House (poster or student panel) per year

Encouraged to submit an abstract for a poster or a talk at one of the following:

1. Informatics conference
2. AMIA Student Design Contest. Submission due: March*
3. Annual NLM Training meeting submission (for those on NLM Fellowship). Abstract and Open Mic due: March
4. Oregon HIMSS meeting (April)
5. OHSU Research Week submission (due: March)

*If accepted, must apply for travel funding.

Mentoring

1. Update Individual Development Plan (IDP) in November per emailed instructions from Karen Eden. Meet with Virginia Lankes, Career Development Specialist, in December or January to review IDP.
2. PhD Candidates: Formally name (and begin to perform research with mentor) after passing qualifying exam

Academic Progress

1. Complete all first-year required courses.
2. Pass Comprehensive Examination (Health and Clinical Informatics major only)
3. Student must maintain good academic standing (3.0 or higher GPA)
4. Full-time PhD students must complete at least 32.0 credits in the first academic year

Submission Deadlines

AMIA Fall Meeting

- Paper due - March
- Panel due - March
- Abstracts due - March
- Meeting - November

ISMB or equivalent

- Proceedings - January
- Highlights - February
- Meeting - July

AMIA Summit

- Paper - August
- Panel - October
- Abstracts – December
- Meeting - March

NLM Training Meeting

- Paper – March
- Open Mic--March
- Panel - March
- Abstracts - March
- Meeting – June

OHSU Research Week

- Abstracts due – March
- Meeting – May

Research Rotations

New PhD students must complete 2 Research Rotations (1 quarter each) during the first year.
(Register for 1-5 credits of BMI 601 per rotation.)

Year 2 Expectations

Required to present at:

1. BMI 505F/605F "Fellows Meeting"
2. One Open House (poster or student panel) per year
3. OHSU Research Week (submit **first author or co-author** poster abstract; due in March)

Encouraged to present or submit an abstract for a poster or a talk at one of the following

1. Informatics conference
2. AMIA Student Design Contest. Submission due: March*
3. Annual NLM Training meeting. Abstract and Open Mic due: March
4. Oregon HIMSS meeting (abstract due: April)

*If accepted, must apply for travel funding.

Mentoring

1. Update Individual Development Plan (IDP) in November per emailed instructions from Karen Eden. Meet with Virginia Lankes, Career Development Specialist, in December or January to review IDP.

Academic Progress:

1. Complete all required, Advanced Research Methods and Cognate courses and be in good academic standing to sit for the qualifying examination.
2. Pass Qualifying Examination
3. Convene Dissertation Advisory Committee (DAC) within one term after passing Qualifying Exam. Meet with DAC (at least) once every quarter.

Year 3 Expectations

Required to present at:

1. BMI 505F/605F "Fellows Meeting"
2. One Open House (poster or student panel) per year
3. OHSU Research Week (submit **first-author** abstract for poster or talk; due in March)

Encouraged to present or submit a poster or an abstract to one of the following

1. Informatics conference
2. AMIA. Submission due: March*
3. NLM Training meeting submission (Abstract due: March; Open Mic due: May)
4. Oregon HIMSS meeting (April)

*If accepted, must apply for travel funding.

Academic progress:

1. Present Symposium
2. Defend dissertation proposal
3. Encouraged to submit first-author or collaborative manuscript to a peer-reviewed journal or to a conference that publishes full papers in proceedings and is indexed in Medline, e.g., AMIA.

Mentoring

2. Update Individual Development Plan (IDP) in November per emailed instructions from Karen Eden. Meet with Virginia Lankes, Career Development Specialist, in December or January to review IDP.

Year 4+ Expectations – PhDs**Required to present at:**

1. BMI 505F/605F “Fellows Meeting”
2. One Open House (poster or student panel) per year
3. OHSU Research Week submission (submit **first-author** abstract for poster or talk; due in March)

Required to submit an abstract for a poster or a talk to one of the following:

1. Informatics conference
2. AMIA. Submission due: March.*
3. Annual NLM Training meeting submission (abstract due: March; Open Mic: May)
4. Oregon HIMSS meeting (abstract due: April)
5. Other national meetings*

*If accepted, must apply for travel funding.

Academic progress:

1. Defend and submit dissertation
2. Required to submit first-author manuscript to a peer-reviewed journal or to a conference that publishes full papers in proceedings and is indexed in Medline, e.g., AMIA.

Years 1-4+ Expectations for all PhDs

Submit notice of all publications, abstracts, and posters to Diane Doctor (doctord@ohsu.edu).

APPENDIX B

2020-2021 Postdoctoral Student Expectations

All students are required to present and serve as the moderator at least once per year at BMI 505F/605F (weekly PhD/Postdoc meetings). The presentation should include either a critique of medical literature or background slides for the student's current research.

In-person attendance is required at:

7. 80% of weekly PhD/Postdoc meetings
8. 80 of Thursday Informatics conferences
9. Thesis and dissertation proposal defenses and final defenses scheduled on Thursdays
10. Annual NLM Fellowship Training meeting (for those on NIH Fellowship such as NLM, NIEHS, NEI, etc.)
11. Fall Open House
12. OHSU Research Week

Year 1 Expectations – Postdocs

Required to present at:

3. BMI 505F/605F "Fellows Meeting"
4. Fall Open House

Required to submit co-author abstract to:

1. OHSU Research Week (poster or 10-minute oral presentation)

Required to submit an abstract for a poster or a talk at one of the following:

6. Informatics conference
7. AMIA Student Design Contest. Submission due: March*
8. Annual NLM Training meeting submission (for those on NIH Fellowship such as NLM, NIEHS, NEI, etc.) Fellowship). Abstract and Open Mic due: March
9. Oregon HIMSS meeting (April)
10. Submit abstract to AMIA or other national meeting*

*If accepted, must apply for travel funding.

Mentoring

3. Complete Individual Development Plan (IDP) by Nov. 28 per emailed instructions from Karen Eden. Have meeting with Virginia Lankes, Career Development Specialist, by Feb. 1 to review IDP.
4. Identify faculty mentor to perform research with before Annual Review

Academic Progress

Submission Deadlines

AMIA Fall Meeting

- Paper due - March
- Panel due - March
- Abstracts due - March
- Meeting - November

ISMB or equivalent

- Proceedings - January
- Highlights - February
- Meeting - July

AMIA Translational Meeting

- Paper - August
- Panel - October
- Abstracts – December
- Meeting - March

NLM Training Meeting

- Paper – March
- Open Mic--March
- Panel - March
- Abstracts - March
- Meeting – June

OHSU Research Week

- Abstracts due – March
- Meeting – May

5. Student must maintain good academic standing (3.0 or higher GPA)

Research Rotations

New Postdoctoral students must complete 1 Research Rotation during the first summer term. (Register for 1-5 credits of BMI 501 Research). Postdocs must take (at least) 5 credits of coursework that term.

Year 2 Expectations – Postdocs**Required to present at:**

4. BMI 505F/605F “Fellows Meeting”
5. Fall Open House

Required to submit first author abstract to:

1. OHSU Research Week (poster or 10-minute oral presentation)

Required to submit an abstract for a poster or a talk at one of the following:

5. Informatics conference
6. AMIA Student Design Contest. Submission due: March*
7. Annual NLM Training meeting. Abstract and Open Mic due: March
8. Oregon HIMSS meeting (abstract due: April)
9. AMIA or other national meeting*

*If accepted, must apply for travel funding.

Degree requirements:

1. Complete all requirements for MS
2. Submit abstract to a national or local meeting (see above)
3. Submit first-author manuscript to a peer-reviewed journal
4. Develop plan to apply for future funding during the 3rd year

Mentoring

1. Update Individual Development Plan (IDP) by Nov. 28 per emailed instructions from Karen Eden. Have meeting with Virginia Lankes, Career Development Specialist, by Feb. 1 to review IDP.

Year 3 Expectations – Postdocs**Required to present at:**

4. BMI 505F/605F “Fellows Meeting”
5. Fall Open House

Required to submit first author abstract to:

1. OHSU Research Week (poster or 10-minute oral presentation)

Required to submit an abstract for a poster or a talk at one of the following:

5. Informatics conference
6. AMIA. Submission due: March*

7. NLM Training meeting submission (Abstract due: March; Open Mic due: May)
8. Oregon HIMSS meeting (April)
9. Submit abstract to other national meetings*

*If accepted, must apply for travel funding.

Postdocs:

1. Apply for funding (e.g., K-award) subject to advisor's approval
2. Plan next steps

Mentoring

3. Update Individual Development Plan (IDP) by Nov. 28 per emailed instructions from Karen Eden. Meet with Virginia Lankes, Career Development Specialist, by Feb. 1 to review IDP.

Years 1-3 Expectations for all Postdocs

Submit notice of all publications, abstracts, and posters to Diane Doctor (doctord@ohsu.edu).

APPENDIX C

Information for Students funded by the National Library of Medicine (NLM) Training Grant

Funding Information

NLM trainees are eligible for up to 5 years of support on NIH National Research Service Award (NRSA) grants, which may span predoctoral and postdoctoral funding. If a predoc is supported for 5 years, no additional NLM training support can be provided to that trainee. Postdoctoral positions are competitive and require application submission. Funding renewal is determined by the outcome of the annual review conducted in April.

xTrain Appointment Forms and Obligations

What is the purpose?

xTrain provides program directors/principal investigators, university administrators, and trainees the ability to electronically prepare and submit PHS 2271 Statement of Appointment forms and PHS 416-7 Termination Notices associated with institutional research training grants, institutional career development awards, individual fellowships and research education awards. xTrain supports the use of a number of [activity codes](#). It is also used by agency grants management staff to review and process the appointments and termination notices submitted electronically.

Since January 1, 2011, the use of xTrain has been required to electronically prepare and submit PHS 2271 Statement of Appointment forms and/or PHS 416-7 Termination Notices. See [Guide Notice NOT-OD-072](#) for more information.

Who uses xTrain?

The Program Director/Principal Investigator (PD/PI), Assistant (with xTrain delegation), Trainee and Signing Official (SO) or Business Official (BO) can access xTrain. eRA Commons users with the SO role or AA role can create accounts with Trainee, BO, PD/PI or ASST roles or they can add these roles to existing accounts.

It is important that you log into xTrain each time you are contacted by Lynne as this step is necessary in order for updates to go into effect. Timely completion of entering, reviewing and signing off on data in xTrain will ensure that you are paid the appropriate stipend on a regular basis.

For new users who would like to familiarize themselves with xTrain and learn about its features in a sample environment, xTrain is available on the [Commons Demo](#) site.

Resources for xTrain

xTrain Online Help: <http://era.nih.gov/erahelp/xTrain/default.htm>

xTrain Training Resources: http://era.nih.gov/era_training/xtrain.cfm

xTrain FAQs: http://era.nih.gov/commons/faq_commons.cfm#XVI

xTrain Website: https://era.nih.gov/services_for_applicants/other/xTrain.cfm

Stipends

Stipends are paid on a monthly basis, generally mailed the last week of the month. For more information on stipends, including the Direct Deposit form, see the Central Financial Services (CFS) website at: <https://o2.ohsu.edu/central-financial-services/accounts-payable/stipends.cfm>. If you did not get a copy of your schedule of disbursements, please contact Andrea Ilg at ilgan@ohsu.edu. For specifics on postdoctoral stipend amounts, see the NLM Stipends Table for fiscal year 2016: <http://www.nlm.nih.gov/ep/trainingdirectors.html#stipends>. NLM trainees are exempt from the NRSA payback requirement.

Predoctoral stipends – beginning on the first day of appointment (as early as July 1, 2017): Predoctoral stipends are awarded annually and follow School of Medicine guidelines for stipend amounts: \$28,000 for pre-qualifying exam PhD students, \$28,500 for post-qualifying exam PhD Candidates and \$29,500 for those who have successfully completed the dissertation proposal defense. As noted above, funding renewal is determined by the outcome of the annual review conducted in February/March.

Postdoctoral stipends - beginning on the first day of appointment (as early as July 1, 2016): The amount of support awarded during the first year is based on the number of years of experience following completion of a doctoral level degree (PhD, MD, DO, ND, DDS, DPT, etc.) and is based on the latest NRSA stipend levels set by NIH. For MDs, years in internship or residency count as qualifying experience. For each subsequent year of support, the trainee adds one year of experience and receives the corresponding NRSA stipend amount. Up to 3 years of NLM support are permitted for a postdoc. Funding renewal is determined by the outcome of the annual review conducted in February/March.

Taxability of NLM/NIH Stipends

The IRS and Treasury Department released regulations in January 2005 (Revenue Procedures 2005-11) clarifying the student exception to the FICA (Social Security and Medicare) taxes for students employed by a school, college, or university where the student is pursuing a course of study. NIH's understanding is that these final regulations do **not** apply to or impact NRSA programs or awards.

The taxability of stipends in no way alters the relationship between NRSA fellows and sponsoring institutions. NRSA stipends are not considered salaries. In addition, recipients of NRSA individual fellowships are not considered to be in an employee-employer relationship with NIH or the sponsoring institution solely as a result of the NRSA award. The interpretation and implementation of the tax laws are the domain of the IRS and the courts. NIH takes no position on what the status may be for a particular taxpayer, and it does not have the authority to dispense tax advice. Individuals should consult their local IRS office about the applicability of the law to their situation and for information on their tax obligations.

Fellows are reminded that, even if the sponsoring institution does not issue a Form 1099, they still are required to report NRSA stipends. NIH will issue a Form 1099 for each fellow training at a Federal or foreign laboratory and receiving a stipend check from the NIH.

http://grants.nih.gov/grants/policy/nihgps_2010/nihgps_ch11.htm#_Toc271265060

Travel and Discretionary Funding

NLM Fellows are given \$2,000 annually to support attendance at the mandatory NLM Training Meeting, held in June. It is expected that fellows will share hotel rooms when attending these meetings. If a fellow chooses to room separately, that person will be reimbursed at half the room rate. If a trainee wishes to attend a conference other than NLM, they must submit a Request for Funding to Andrea Ilg for review by the PhD Committee.

Discretionary funds are available to Fellows to support training expenses such as supplementary textbooks, software, and interlibrary loans.

All items purchased with grant funds are the property of the department and remain at OHSU after Fellows graduate. Fellows must submit a proposal form for the purchase of such items and include the amount of the request, how the funds are to be used, and why the purchase contributes to educational training (see below for funding policy and request form).

Travel and discretionary funds must be spent in the grant year in which a trainee's appointment is made; each grant year runs from July 1st to June 30th (submit by June 1 to insure processing in the appointment year). See the Central Financial Services (CFS) reimbursement timeframe below to ensure timely reimbursement for approved expenses. If a trainee does not follow these guidelines, the funds received will not be considered reimbursement but will be taxed as income. The complete CFS Reimbursement Policy & Procedure document is available here: <http://www.ohsu.edu/xd/about/services/financial-services/forms/upload/ReimbursementsPolicy.pdf>. See Section VI "Reporting Time Frame—Employees" for reimbursement details and deadlines.

Tuition and Fees Statements

Students will generally receive one tuition and fees statement at the start of the term. Please disregard this statement. The office of Student Receivables manually pays the tuition and fees once the term has started. If a trainee receives a second tuition and fees statement, please contact Andrea at ilgan@ohsu.edu

Employment during the fellowship

It is expected that you will dedicate full-time, on campus effort to the fellowship. Up to one day per week, limited to 8 hours, may be spent in other remunerative activities (such as being a TA or Research Assistant), as long as they do not conflict, interfere with or prolong the fellowship.

Required NIH training

In addition to OHSU requirements, NIH requires that all trainees receiving support through an NIH training grant receive eight contact hours of instruction in responsible conduct of research during Year 1 of the Fellowship. Instruction must be undertaken at least once during each career stage (predoctoral and postdoctoral), and at least once every four years. Postdoctoral students must take the non-credit RCR Training course on campus, offered by the Oregon Clinical and Translational Research Institute (OCTRI). Predoctoral students must take HIP 516 Protection of Human Subjects fall term of Year 1 of the fellowship. The OCTRI RCR course is offered every winter (Feb./Mar.) and the HIP 516 course is offered every fall (Nov.). Students may take *both* trainings, if they so choose. Descriptions of both courses follow. Contact Karen McCracken (HIP Program) at mccracke@ohsu.edu to register.

OCTRI RCR Training for Scholars and Trainees

This eight-hour seminar meets the Responsible Conduct of Research requirements of the NIH K-award or T-award. Priority is given to scholars and trainees funded by an NIH K-award or clinical, postdoctoral T-award, or any career development grant. It is an interactive and practical experience that is focused on addressing real issues that have arisen in the course of conducting research on an existing project. This may be related to ethics, integrity and regulatory matters, including anything from how to recruit and consent patients to how to keep laboratory methods or determine authorship. The course is open

to **BMI postdoctoral** students and is held during February and March in four two-hour weekly sessions. To register, contact Karen McCracken (mccracke@ohsu.edu).

This link has more information about the OCTRI RCR training:

<http://www.ohsu.edu/xd/research/centers-institutes/octri/education-training/rcr-training-opportunity.cfm>.

HIP 516 Protection of Human Subjects, 4 weeks (1 credit) – Required for Certificate and MCR

Course Director: Kathryn Schuff, MD, MCR

Format: Large-group lecture, case-based, interactive discussion, attendance at an IRB meeting.

The overall objective of this course is to enable clinical researchers to recognize and appropriately address legal, regulatory, and ethical issues in all clinical research, with special attention to research involving vulnerable subjects. We will accomplish this goal by: 1) Teaching basic concepts in law, federal regulation, study design, and ethics related to clinical research; 2) Reviewing common problems encountered in human subjects protocols and informed consent forms to demonstrate how to identify and remedy deficiencies; 3) Reviewing the roles and responsibilities of institutional review boards, investigators, sponsors, study coordinators, and all others involved in the conduct of human subjects research; 4) Reviewing the obligations of clinical researchers in relation to initial and continuing reviews, reporting of unanticipated problems, reporting changes in approved research, and consenting and monitoring human subjects as required by federal regulations; and 5) Examining current regulatory and ethical issues in clinical research.

Offered: Fall term

Cost: Free

This course is open to **BMI PhD** students. To register, contact Karen McCracken (mccracke@ohsu.edu).

Laptop

NLM-funded trainees will receive a program-provided laptop for the duration of their appointment. This is property of the university and must be returned at the end of the appointment. Trainees are responsible for maintaining control of the equipment at all times. Stolen or lost laptops will become the financial responsibility of the trainee.

Publications and Presentations Arising from Research while an NIH-sponsored Trainee

If someone is an author on a paper related to research conducted while an NLM trainee, *no matter when it is published*, the trainee (or the first author) must acknowledge the NLM training grant number as a source of support and list the NLM training grant number in the Acknowledgements section of the manuscript when it is submitted to the journal. The language to use is:

“Research reported in this publication was supported by the National Library of Medicine of the National Institutes of Health under Award Number T15LM007088. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.” The paper must also be deposited in PubMed Central in compliance with the NIH Public Access Policy: <https://publicaccess.nih.gov/index.htm>

Public Access Policy

The NIH Public Access Policy states that any research that is funded by an NIH grant and published in a peer-reviewed journal needs to be made available to the public. To this end, all NIH-funded manuscripts accepted for publication in peer-reviewed journals must be deposited into PubMed Central within three months of print publication. Many journals will submit to PubMed Central on behalf of the authors, but

if not, the final accepted manuscript must be submitted to PubMed Central through their Manuscript Submission System. The trainee is responsible for verifying that the paper is in PubMed Central within the three-month deadline. If OHSU is not compliant with the Public Access Policy, NIH could withhold training funding for the next grant year.

As part of this policy, any relevant publication also needs to be included in the principal investigator's NIH My Bibliography database for the annual training grant progress report to NLM. When a trainee has a publication that arose from NLM trainee funding, the author should send the full citation to Andrea Ilg as soon after publication as possible, to meet this requirement.

For more information on the NIH Public Access Policy, refer to the OHSU Library website at <http://libguides.ohsu.edu/NIHPAPolicy>

For oral and poster presentations of research that arises from the NLM training grant, please acknowledge support from the grant. The grant number to use is T15LM007088.

APPENDIX D

NLM Training Grant – Request for Funding Policy

Trainees supported through the National Library of Medicine (NLM) and Fogarty will receive monetary support during their appointment to the grant. Effective immediately, Trainees are now required to follow the Request for Funding Policy and submit the Request for Funding Form along with justification for all discretionary spending*.

Textbooks, required and recommended, for coursework will be automatically approved. eBooks are now an approved format for books tied directly to coursework.

Trainees will be offered a program laptop during their appointment. Trainees are responsible for following all code of conduct rules for the issued laptop and are responsible for the physical security of OHSU-issued computers and understanding the laptop is property of OHSU. Replacement of a lost or stolen laptop is the financial responsibility of the Trainee.

Travel to the annual NLM Training Meeting will be automatically approved. Trainees must follow policy regarding travel to these conferences. Travel to any other conference (i.e., AMIA or ISMB) will require a request for funding submission prior to travel.

Trainees must submit a request for funding form for the following:

1. Request to purchase books that are not associated directly with coursework
2. Request to take coursework outside of required courses in your program
3. Request to take cognate coursework outside of OHSU
4. Request to attend a conference outside of the annual NLM Training Meeting
5. Request for research expenses, e.g., incentives for research participants
6. Request for software and/or computer equipment.

All forms need a signature from Trainee's mentor as approval of funding request. Forms should be submitted to DMICE Administration (Andrea Ilg) for submission and will be reviewed at the bi-monthly doctoral meeting. All funding decisions will be made at the doctoral meetings. No funds will be allocated unless a signed funding request form has been received by the DMICE Administration and

approved by the doctoral committee. No reimbursements will be processed if a request for funding form was not submitted and approved prior to the purchase.

*Discretionary spending – any monies used to purchase goods as training expenses while appointed to the NLM Training Grant.

Non-Discretionary spending – Stipend, Health Insurance, Tuition/Fees at OHSU, Textbooks tied directly to coursework, Travel to NLM Training conference and AMIA or Bioinformatics Annual Meeting.

NLM Training Grant – Request for Funding Form

Date Submitted

Trainee Name

Mentor Name

Itemized detail of funding request

Item	Estimated Cost
Total Estimated Cost	\$

Required: Trainee justification for request for discretionary spending:

Required: Mentor justification for approving request for discretionary spending:

Trainee Signature _____

Date _____

Mentor Signature _____

Date _____

Date received by DMICE Administration (Andrea Ilg):

Date reviewed by committee:

Committee approval:

Committee rejection (with reason):

NLM Training Grant – Request for Funding Form (Travel)

Date Submitted

Trainee Name

Mentor Name

Conference Travel Request

☐ Conference travel outside of annual NLM Training Meeting

Conference Name			
Destination City/State			
Departure Date		# of Nights	
Airfare			
Conference/Registration Fee Early Bird pricing			
Lodging			
Ground Transportation			
Per Diem			
Total Estimated Cost		\$	

Required: Trainee justification for requesting additional travel funds:

Required: Mentor justification for approving request for discretionary spending:

Trainee Signature _____

Date _____

Mentor Signature _____

Date _____

Date received by DMICE Administration (Andrea Ilg):

Date reviewed by committee:

Committee approval:

Committee rejection (with reason):

APPENDIX E

Citing and Submitting Grant-Funded Publications and Presentations

If you are funded by the National Library of Medicine biomedical informatics training grant or another NIH grant (such as a DMICE faculty member's research grant), you need to cite that grant when you have publications and presentations arising from research you did that was supported by the NIH grant. In addition, for publications, you need to ensure that the publication is submitted to PubMed Central, to fulfill the NIH Public Access Policy that NIH-funded research is made available to the public. These requirements apply, even if you are no longer funded by the grant, if the research described in the publication or presentation was conducted while you were supported by the grant.

For Publications

A. At the time of submission of the paper to the journal:

Make sure the NIH grant is listed in the support section. For the NLM informatics training grant, the language to use is: "Research reported in this publication was supported by the National Library of Medicine of the National Institutes of Health under Award Number T15LM007088. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health."

If you were supported by another NIH grant, use similar language and that grant number.

B. At the time of print publication of the paper:

1. Make sure the paper has been submitted to PubMed Central within 3 months of print publication, to fulfill the NIH Public Access Policy. Many journals will submit to PubMed Central on behalf of the authors, but if not, the final accepted manuscript must be submitted to PubMed Central by the first author through their Manuscript Submission System.

NIH has a list of journals that submit directly to PubMed Central:
http://publicaccess.nih.gov/submit_process_journals.htm

2. Send the citation of your paper, with the PMCID, to Diane Doctor (doctord@ohsu.edu).

As part of the NIH policy, any relevant publications need to be included in the principal investigator's NCBI MyBibliography database for the annual training grant progress report to NLM. Please send your paper citations to Diane Doctor as soon as they are published so we can include them in Dr. Bill Hersh's MyBibliography.

For Presentations

For oral and poster presentations of research that arises from the NLM training grant, please acknowledge support from the grant. The grant number to use is T15LM007088.

For more information on the NIH Public Access Policy, refer to the OHSU Library website at <https://www.ohsu.edu/library>

APPENDIX F

Biomedical Informatics Mentorship Agreement

Mentee: _____ Meeting Date: _____

Our program considers mentoring as a vital component in your training not only to help you become an independent researcher but also to prepare you to mentor future graduate students. This agreement is to help you set up mutual expectations for the year. You may choose to skip some items or add others but this can serve as a guide. It will be important at the first meeting to review the mentee's timeline and goals for the year as that may inform this agreement. It will be helpful for both to complete this together early in the year and refer to it as needed. This form is to be used only until the MS student has formed a Thesis Advisory Committee (TAC) and until the PhD student has formed a Dissertation Advisory Committee (DAC).

1. Review the mentee's timeline, Pre or Post Doctoral Student Expectations handout, and list goals for the year.

- a. _____
- b. _____
- c. _____

These are some of the areas you may cover this year that will help you achieve your goals.

Dissertation Advice	Career Planning
Thesis Advice	Work/Life Balance
Capstone Advice	Need for Additional Mentors
Networking	Conference Abstracts
Cognate Courses	Manuscript Submissions

2. Check the frequency of meetings you plan for this year. For students early in their program, meeting less often may be appropriate. As the student moves toward independent research, more frequent meetings are important.

- ☐ Weekly ☐ Bi-monthly ☐ Other _____
☐ Monthly ☐ Quarterly

The person responsible for scheduling meetings is: _____

Method for meetings (e.g. – 1:1, phone, skype, etc.): _____

NOTE: Many faculty and students keep up-to-date calendars using Microsoft Office Outlook. Using the Scheduling Assistant you can view faculty availability and send appointments.

3. To make effective use of time, plan your meetings. The mentee prior to each meeting may provide the following. Agree on what will best serve you two.

- ☐ Agenda for meeting
- ☐ Narrative of each topic to be discussed (as needed)
- ☐ Updated Resume/CV (with highlight of new additions)
- ☐ Draft of dissertation, thesis, capstone, manuscript (chapter, proposal, etc) provided at least _e.g., 2 weeks or more prior to meeting. Conference abstracts may be on more compressed timeline.
- ☐ Other _____

4. Please review, discuss, and edit the expectations for this mentoring relationship.

Responsibilities of Mentor:

Provide assessment and feedback regarding accomplishments in each topic area and help plan "next steps"
Emotional Support
Advocacy
Actively address any problems with mentorship relationship
Other (please specify) _____

Responsibilities of Mentee:

Provide timeline, goals and updates

Provide drafts of products for review in a timely manner.
Actively address any problems with mentorship relationship (seek help with Dr. Eden as needed)
Other (please specify)

5. **Mentor, Signature:** _____ **Mentee, Signature:** _____
Date: _____ **Date:** _____

APPENDIX G

Core Competencies for PhD in Bioinformatics and Computational Biomedicine

Rubric

Intended Use: This rubric is meant to be a guide for students and their advisors and mentors to help track their progress through the BCB PhD degree program. Measurements are a suggestion – feel free to add as you see fit!

Professional Knowledge and Skills	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> Apply a broad knowledge of bioinformatics and computational biomedicine, and related disciplines, to solve problems in research, clinical and educational settings. 			
Knowledge base	Advanced understanding of the knowledge base related to bioinformatics and computational biomedicine	Basic knowledge base related to bioinformatics and computational biomedicine	<ul style="list-style-type: none"> Present a symposium on their research topic Student initial presentation of dissertation proposal DAC (Dissertation Advisory Committee) meetings – reports Research rotations Course Midterms Course Finals Passing other larger course projects Successful defense of dissertation Submission of dissertation Possible course alignment: BMI 650, BMI 651, BMI 652A/B, BMI 653
Advancements	An in depth understanding of the advancements in bioinformatics and computational biomedicine	Basic or lack of understanding of the advancements in bioinformatics and computational biomedicine	
Specialization	Advanced knowledge of one specialization in bioinformatics and computational biomedicine	Poor or basic knowledge of one specialization in bioinformatics and computational biomedicine	
Development of new knowledge	Develops new knowledge in their specialized field	Incomplete or lack of development of new knowledge in their specialized field	
Reasoning and Judgement	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> Identify gaps in scientific knowledge; formulate a research question; design a research study; employ and apply appropriate methods or develop new methods as necessary; analyze, contextualize, and interpret results; and evaluate the internal and external validity of the research findings. 			
Critical thinking	Viewpoints presented in the scientific literature are critically analyzed to identify gaps in the research	Viewpoints presented in the scientific literature are not critically analyzed to identify gaps in the research	<ul style="list-style-type: none"> Present a symposium on their research topic

	Research question is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding	Research question is stated without clarification or description, or is otherwise unclear.	<ul style="list-style-type: none"> • Student initial presentation of dissertation proposal • DAC (Dissertation Advisory Committee) meetings – reports • Research rotations • Course Midterms • Course Finals • Passing other larger course projects • Successful defense of dissertation • Submission of dissertation • Possible course alignment: BMI 660, BMI 661 • Course: Quantitative Research Methods
Research methods	Applies appropriate methods or develops new methods as necessary	Does not apply appropriate methods or does not develop new methods when necessary	
Critical analysis	Research results are evaluated, including whether results were internally and externally validated.	Research results are not evaluated. Validity of results is not mentioned or is unclear.	
	Conclusion is based on an in-depth synthesis and analysis of the data, even if hypothesis is disproven.	Conclusion is based on an incomplete synthesis and analysis of the data.	
Evidence-based Practice and Research	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> • Identify and define problems, critically compare options, make timely decisions or recommendations, identify uncertainties, and use findings to improve outcomes in light of evolving evidence. 			
Literature review	Critical review of the relevant scientific literature	Basic or missing review of the relevant scientific literature	<ul style="list-style-type: none"> • Present a symposium on their research topic • Student initial presentation of dissertation proposal • DAC (Dissertation Advisory Committee) meetings – reports • Research rotations • Course Midterms • Course Finals • Passing other larger course projects • Successful defense of dissertation • Submission of dissertation • Possible course alignment: BMI 652A/B
Research advancement	Substantial critical evaluation of recent advancements in the field of research	Some or no critical evaluation of recent advancements in the field of research	
Research objectives	Systematic approach to address research objectives	Incomplete/disorganized approach to address research objectives	
Research results	Research results are presented comprehensively	Research results are not presented comprehensively	
Recommendations for further research	Possible future directions of research are clearly presented	Possible future directions of research are unclear.	

Lifelong Learning	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> Engage in lifelong learning through: finding, interpreting and critically appraising scientific literature in order to fill knowledge gaps and stay informed of scientific advances; synthesizing and applying new knowledge to their own research; and connecting with the larger scientific community through participating in scientific conferences and societies. 			
Local/Regional conference participation	Presenting at local/regional conference	Attending Thursday research conference	<ul style="list-style-type: none"> Includes Thursday conference, OHSU research week, BioData Club, etc. NLM trainees attend annual NLM trainee meeting Attend other meeting as allowed Attend conferences as interested Possible course alignment: BMI 653
National/International conference participation	Presenting at national/international research conference	Does not present at national/international research conference	
Networking	Attend outside conferences to fill knowledge gaps and meet possible future collaborators	Does not attend outside conferences to fill knowledge gaps and meet possible future collaborators	
Communication	Meets expectations	Does not meet expectations	Possible Measurements
SLOs: <ul style="list-style-type: none"> Effectively communicate and disseminate scientific research in written and verbal form to both peers and non-experts. Communicate professionally, including during interactions with others, and while giving and receiving feedback 			
Writing skills	Well written dissertation and organization supports the objectives. Content is clear and coherent.	Poorly written and poorly organized, content unclear, lapses in coherence	<ul style="list-style-type: none"> Present a symposium on their research topic Student initial presentation of dissertation proposal DAC (Dissertation Advisory Committee) meetings – reports Research rotations Course Midterms Course Finals Passing other larger course projects Successful defense of dissertation Submission of dissertation
Speaking skills	Spoken explanations are complete, clear and concise	Spoken explanations are not complete, clear and/or concise	
Audience awareness	Audience knowledge was considered in presentation of topic	Audience knowledge was not considered in presentation of topic	
Response to feedback	Actively listens and responds appropriately and respectfully to feedback	Responds inappropriately and/or disrespectfully to feedback	
Integrating feedback	Documents and addresses feedback; seek out opportunities for feedback	Does not document or address feedback; does not seek out opportunities for feedback	

			<ul style="list-style-type: none"> Glossary of terms is recommended at final presentation defense for non-experts Possible course alignment: BMI 652A/B, BMI 670
Respect for others	Interacts respectfully with all peers, faculty, and staff	Does not interact respectfully with all peers, faculty and staff	
Professionalism and Ethics	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> Apply fundamental knowledge of ethics in research and implement solutions that assure confidentiality, security and integrity while maximizing the availability of data, information, and knowledge. 			
Academic integrity/Research ethics	Current principles of ethics and academic integrity are incorporated into all aspects of research.	Lack of awareness, or lack of application, of current principles of academic integrity and research ethics	<ul style="list-style-type: none"> Student initial presentation of dissertation proposal DAC (Dissertation Advisory Committee) meetings – reports Research rotations Course Midterms Course Finals Passing other larger course projects Successful defense of dissertation Submission of dissertation Possible course alignment: BMI 635, BMI 646, BMI 665, BMI 669, BMI 676 Course Midterms Course Finals Passing other larger course projects
Manage data	Record data in prescribed format in timely, accurate and complete manner.	Record experimental results with flaws in timeliness, accuracy and organization	
Data security	Conform to current standards of data security as determined by University policy and practice	Does not conform to current standards of data security as determined by University policy and practice	
Interprofessional Teamwork	Meets expectations	Does not meet expectations	Possible Measurements

SLO: <ul style="list-style-type: none"> Function as a productive member of a multidisciplinary collaborative team of biological and related scientists, informatics, information technology, clinical, administrative, and other experts. 			
Teamwork	Works professionally, collegially and effectively as team member/collaborator	Does not work professionally, collegially and/or effectively as team member/collaborator	<ul style="list-style-type: none"> Student initial presentation of dissertation proposal Annual Review DAC (Dissertation Advisory Committee) meetings – reports Research rotations Successful defense of dissertation Submission of dissertation Possible course alignment: BMI 652 A/B, BMI 653, BMI 669 Course Midterms Course Finals Passing other larger course projects
Safety and Quality Improvement	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> Demonstrate and promote informatics solutions that help to ensure patient safety within relevant clinical settings. 			
Safety Standards	Complies with safety and regulatory standards	Does not comply with safety and regulatory standards	<ul style="list-style-type: none"> Research rotations Possible course alignment: BMI 676 Passing other larger course projects
Systems	Meets expectations	Does not meet expectations	Possible Measurements
<ul style="list-style-type: none"> Appraise applicable bioinformatics concepts, methods, and tools to solve challenging problems in their focus area. Apply the principles of team science to solve complex information problems. Have experience and training utilizing modern frameworks for rapid prototyping, and how to extract information from a wide variety of databases, as relevant. 			
Critical Thinking	Able to evaluate relevant concepts, methods and tools within their focus area	Unable to evaluate relevant concepts, methods and tools within their focus area,	<ul style="list-style-type: none"> Student initial presentation of dissertation proposal

		or evaluation not presented	<ul style="list-style-type: none"> • Annual Review • DAC (Dissertation Advisory Committee) meetings – reports • Successful defense of dissertation • Submission of dissertation • Research rotations • Course Midterms • Course Finals • Passing other larger course projects • Organizational Behavior Course Assignments • Project management course assignments • Internships • Possible course alignment: BMI 646
Priorities	Able to integrate stakeholder priorities into solutions to complex health and health information problems	Unable to integrate stakeholder priorities into solutions to complex health and health information problems	
Social Justice	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> • Integrate the culture and diversity of a population when developing research ideas, conducting research, evaluating implementation, and/or interpreting research findings. 			
Empathy toward others	Demonstrates empathy toward the culture and diversity of all stakeholders	Treats others with respect; follows standard practices	<ul style="list-style-type: none"> • Student initial presentation of dissertation proposal • Annual Review • DAC (Dissertation Advisory Committee) meetings – reports • Successful defense of dissertation • Submission of dissertation • Research rotations • Course Midterms • Course Finals • Passing other larger course projects • Internships • Possible course alignment: BMI 676

Adapted from: Western University, Ontario, Canada: Learning Outcomes: Evolution of Assessment and Van Andel Institute

APPENDIX H

Core Competencies for PhD in Health and Clinical Informatics

Intended Use: This rubric is meant to be a guide for students and their advisors and mentors to help track their progress through the HCIN PhD degree program. Measurements are a suggestion – feel free to add as you see fit!

Professional Knowledge and Skills	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> Apply a broad knowledge of health and clinical informatics, and related disciplines, to solve problems in research, clinical and educational settings. 			
Knowledge base	Advanced understanding of the knowledge base related to biomedical informatics	Basic knowledge base related to biomedical informatics	<ul style="list-style-type: none"> Present a symposium on their research topic Student initial presentation of dissertation proposal DAC (Dissertation Advisory Committee) meetings – reports Research rotations Course Midterms Course Finals Passing other larger course projects Successful defense of dissertation Submission of dissertation
Advancements	An in depth understanding of the advancements in biomedical informatics	Basic or lack of understanding of the advancements in biomedical informatics	
Specialization	Advanced knowledge of one specialization in biomedical informatics	Poor or basic knowledge of one specialization in biomedical informatics	
Development of new knowledge	Develops new knowledge in their specialized field	Incomplete or lack of development of new knowledge in their specialized field	
Reasoning and Judgement	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> Identify gaps in scientific knowledge; formulate a research question; design a research study; employ and apply appropriate methods or develop new methods as necessary; analyze, contextualize, and interpret results; and evaluate the internal and external validity of the research findings. 			
Critical thinking	Viewpoints presented in the scientific literature are critically analyzed to identify gaps in the research	Viewpoints presented in the scientific literature are not critically analyzed to identify gaps in the research	<ul style="list-style-type: none"> Present a symposium on their research topic Student initial presentation of dissertation proposal DAC (Dissertation Advisory Committee) meetings – reports
	Research question is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding	Research question is stated without clarification or description, or is otherwise unclear.	

Research methods	Applies appropriate methods or develops new methods as necessary	Does not apply appropriate methods or does not develop new methods when necessary	<ul style="list-style-type: none"> Research rotations Course Midterms Course Finals Passing other larger course projects
Critical analysis	Research results are evaluated, including whether results were internally and externally validated.	Research results are not evaluated. Validity of results is not mentioned or is unclear.	<ul style="list-style-type: none"> Successful defense of dissertation Submission of dissertation
	Conclusion is based on an in-depth synthesis and analysis of the data, even if hypothesis is disproven.	Conclusion is based on an incomplete synthesis and analysis of the data.	<ul style="list-style-type: none"> Possible course alignment: BMI 660, BMI 661, BSTA 525 Course: Quantitative Research Methods
Evidence-based Practice and Research	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> Identify and define problems, critically compare options, make timely decisions or recommendations, identify uncertainties, and use findings to improve outcomes in light of evolving evidence. 			
Literature review	Critical review of the relevant scientific literature	Basic or missing review of the relevant scientific literature	<ul style="list-style-type: none"> Present a symposium on their research topic
Research advancement	Substantial critical evaluation of recent advancements in the field of research	Some or no critical evaluation of recent advancements in the field of research	<ul style="list-style-type: none"> Student initial presentation of dissertation proposal
Research objectives	Systematic approach to address research objectives	Incomplete/disorganized approach to address research objectives	<ul style="list-style-type: none"> DAC (Dissertation Advisory Committee) meetings – reports
Research results	Research results are presented comprehensively	Research results are not presented comprehensively	<ul style="list-style-type: none"> Research rotations Course Midterms Course Finals Passing other larger course projects
Recommendations for further research	Possible future directions of research are clearly presented	Possible future directions of research are unclear.	<ul style="list-style-type: none"> Successful defense of dissertation Submission of dissertation Course: Quantitative Research Methods
Lifelong Learning	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> Engage in lifelong learning through: finding, interpreting and critically appraising scientific literature in order to fill knowledge gaps and stay informed of scientific advances; synthesizing and applying new knowledge to their own research; and connecting with the larger scientific community through participating in scientific conferences and societies. 			

Local/Regional conference participation	Presenting at local/regional conference	Attending Thursday research conference	<ul style="list-style-type: none"> Includes Thursday conference, OHSU research week, BioData Club, etc. NLM trainees attend annual NLM trainee meeting Attend other meeting as allowed Attend conferences as interested
National/International conference participation	Presenting at national/international research conference	Does not present at national/international research conference	
Networking	Attend outside conferences to fill knowledge gaps and meet possible future collaborators	Does not attend outside conferences to fill knowledge gaps and meet possible future collaborators	
Communication	Meets expectations	Does not meet expectations	Possible Measurements
SLOs: <ul style="list-style-type: none"> Effectively communicate and disseminate scientific research in written and verbal form to both peers and non-experts. Communicate professionally, including during interactions with others, and while giving and receiving feedback. 			
Writing skills	Well written dissertation and organization supports the objectives. Content is clear and coherent.	Poorly written and poorly organized, content unclear, lapses in coherence	<ul style="list-style-type: none"> Present a symposium on their research topic Student initial presentation of dissertation proposal DAC (Dissertation Advisory Committee) meetings – reports Research rotations Course Midterms Course Finals Passing other larger course projects Successful defense of dissertation Submission of dissertation Glossary of terms is recommended at final presentation defense for non-experts
Speaking skills	Spoken explanations are complete, clear and concise	Spoken explanations are not complete, clear and/or concise	
Audience awareness	Audience knowledge was considered in presentation of topic	Audience knowledge was not considered in presentation of topic	
Response to feedback	Actively listens and responds appropriately and respectfully to feedback	Responds inappropriately and/or disrespectfully to feedback	
Integrating feedback	Documents and addresses feedback; seek out opportunities for feedback	Does not document or address feedback; does not seek out opportunities for feedback	
Respect for others	Interacts respectfully with all peers, faculty, and staff	Does not interact respectfully with all peers, faculty and staff	
Professionalism and Ethics	Meets expectations	Does not meet expectations	Possible Measurements

SLO: <ul style="list-style-type: none"> Apply fundamental knowledge of ethics in research and implement solutions that assure confidentiality, security and integrity while maximizing the availability of data, information, and knowledge. 			
Academic integrity/Research ethics	Current principles of ethics and academic integrity are incorporated into all aspects of research.	Lack of awareness, or lack of application, of current principles of academic integrity and research ethics	<ul style="list-style-type: none"> Student initial presentation of dissertation proposal DAC (Dissertation Advisory Committee) meetings – reports
Manage data	Record data in prescribed format in timely, accurate and complete manner.	Record experimental results with flaws in timeliness, accuracy and organization	<ul style="list-style-type: none"> Research rotations Course Midterms Course Finals Passing other larger course projects Successful defense of dissertation Submission of dissertation Possible course alignment: BMI 624, BMI 640, BMI 644, BMI 646, BMI 648, BMI 676, HIP courses Course Midterms Course Finals Passing other larger course projects
Data security	Conform to current standards of data security as determined by University policy and practice	Does not conform to current standards of data security as determined by University policy and practice	
Interprofessional Teamwork	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> Function as a productive member of a multidisciplinary collaborative team of informatics, information technology, clinical, administrative, and other experts. 			
Teamwork	Works professionally, collegially and effectively as team member/collaborator	Does not work professionally, collegially and/or effectively as team member/collaborator	<ul style="list-style-type: none"> Student initial presentation of dissertation proposal Annual Review DAC (Dissertation Advisory Committee) meetings – reports Research rotations

			<ul style="list-style-type: none"> • Successful defense of dissertation • Submission of dissertation • Possible course alignment: BMI 617, BMI 618, BMI 619 • Course Midterms • Course Finals • Passing other larger course projects
Safety and Quality Improvement	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> • Demonstrate and promote informatics solutions that help to ensure patient safety within relevant clinical settings. 			
Safety Standards	Complies with safety and regulatory standards	Does not comply with safety and regulatory standards	<ul style="list-style-type: none"> • Research rotations • Possible course alignment: BMI 612, BMI 676 • Passing other larger course projects
Systems	Meets expectations	Does not meet expectations	Possible Measurements
<ul style="list-style-type: none"> • Appraise applicable informatics concepts, methods, and tools to solve challenging health informatics problems in their focus area. • Solve complex health and health information problems by applying the principles of team science to the scope of practice and roles of different stakeholders (including health care professionals, researchers, and patients). • Have experience and training utilizing modern frameworks for rapid prototyping, and how to extract information from a wide variety of databases, as relevant. 			
Critical Thinking	Able to evaluate relevant concepts, methods and tools within their focus area	Unable to evaluate relevant concepts, methods and tools within their focus area, or evaluation not presented	<ul style="list-style-type: none"> • Student initial presentation of dissertation proposal • Annual Review • DAC (Dissertation Advisory Committee) meetings – reports • Successful defense of dissertation • Submission of dissertation • Research rotations • Course Midterms • Course Finals
Priorities	Able to integrate stakeholder priorities into solutions to complex health and health information problems	Unable to integrate stakeholder priorities into solutions to complex health and health information problems	

			<ul style="list-style-type: none"> • Passing other larger course projects • Organizational Behavior Course Assignments • Project management course assignments • Internships • Possible course alignment: BMI 617
Social Justice	Meets expectations	Does not meet expectations	Possible Measurements
SLO: <ul style="list-style-type: none"> • Integrate the culture and diversity of a population when developing research ideas, conducting research, evaluating implementation, and/or interpreting research findings. 			
Empathy toward others	Demonstrates empathy toward the culture and diversity of all stakeholders	Treats others with respect; follows standard practices	<ul style="list-style-type: none"> • Student initial presentation of dissertation proposal • Annual Review • DAC (Dissertation Advisory Committee) meetings – reports • Successful defense of dissertation • Submission of dissertation • Research rotations • Course Midterms • Course Finals • Passing other larger course projects • Internships • Possible course alignment: BMI 617, BMI 676

Adapted from: Western University, Ontario, Canada: Learning Outcomes: Evolution of Assessment and Van Andel Institute

PhD and Postdoctoral Student Handbook 2020-2021
Department of Medical Informatics and Clinical Epidemiology
Oregon Health & Science University

