# Medical Informatics

## Text Book List

**Academic Year 2018 - 2019**

*Textbook list is subject to change.*  
*If you have any questions, please contact Lynne Schwabe at schwabel@ohsu.edu or phone 503-418-1566.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Author/Contributors</th>
<th>Textbooks</th>
</tr>
</thead>
</table>
| BMI 569/669 | Data Analytics Hybrid | McWeeney/Sikora/Moore/Edinger | TEXTBOOKS:  
Required  
Optional/Recommended:  
| BMI 510/610 | Introduction to Biomedical Informatics | Hersh | No Textbook Required |
| BMI 512/612 | Clinical Information Systems | Mohan | No Textbook Required |
| BMI 513/613 | Electronic Health Record Laboratory Course | Vishnu Mohan | Required: Electronic Health Records  
Author: Byron Hamilton  
Language: English  
ISBN-10: 0073402141  
### Standards and Interoperability

**Orwoll**


Additional reading material will be available on the Sakai course site.

### Organizational Behavior and Management in Informatics

**Valerius**

**Required Reading:**
- Organizational Behavior (17th Edition)
  by Stephen P. Robbins, Timothy A. Judge
  Date: 2016
  ISBN-10: 013410398X

Additional required readings will be listed in course materials throughout the term.

### Project Management in Informatics

**McCormack**

**Textbooks:**


**Optional resources:**

Although this course is not intended to be a “prep course” for the PMI’s PMP Certification Examination (see [www.pmi.org](http://www.pmi.org)), the PMI project framework is integrated into the course material. Students considering sitting for the certification examination may also wish to purchase:


**Project Management Software**

Students will learn to use a free, open-source project management program called ProjectLibre to plan, execute, and manage projects. ProjectLibre runs on Windows, MacOS, and Linux, and can be downloaded from [http://www.projectlibre.org/](http://www.projectlibre.org/). Optionally, students with access to Microsoft Project are welcome to use it for all assignments and class deliverables.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Author(s)</th>
<th>Required:</th>
<th>Additional Readings</th>
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<tr>
<td></td>
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<td></td>
<td>Additional readings will be linked in each unit.</td>
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<tr>
<td>BMI 520/620</td>
<td>Consumer Health Informatics</td>
<td>Valerius/Altus</td>
<td>Required: Consumer Health Informatics Thomas Wetter Springer ISBN: 978-3-319-19589-6</td>
<td></td>
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<tr>
<td>BMI 523/623</td>
<td>Clinical Research Informatics</td>
<td>Schuff/Weiskopf</td>
<td>To be announced</td>
<td></td>
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<tr>
<td>BMI 535/635</td>
<td>Management and Processing of Large Scale Data</td>
<td>Mooney</td>
<td>No text required – Readings from primary literature will be assigned.</td>
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10/22/2018
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<th>Course Code</th>
<th>Course Name</th>
<th>Instructor</th>
<th>Required Textbook</th>
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</thead>
</table>
| BMI 537/637 | Healthcare Quality                   | Lieberman  | **REQUIRED TEXTBOOK**  
ISBN: 978-1107690479  
DATA student version of software available at [www.treeage.com](http://server.treeage.com/treeagepro/purchase/addProd.asp?rd0=annual&rd0NL4=No&hdnProdId=4&lstSelect=3&lstStud=1&hdnShipType=download&getManual=No) |
| BMI 540/640 | Computer Science and Java Programming | Hribar     | **Required text**:  
To Be Announced. |
Computer Networking

Computer Networking: A Top-Down Approach, 6/E James F. Kurose, University of Massachusetts, Amherst Keith W. Ross, Polytechnic University, Brooklyn
ISBN-10: 0132856204
2013
Addison-Wesley


Databases

Required Textbook:
“Databases Illuminated, Third Edition”
Catherine M. Ricardo, PhD
Susan D. Urban, PhD
Jones & Bartlett Learning 2017
SBN-13: 9781284056945
ISBN-10:1284056945

Software Engineering

REQUIRED TEXTBOOK(S):
ISBN 0133943038.
Available on Amazon.com as an ebook as well as hardcover. Note that a new edition of the book has been released and the edition we are using is different from last year.

Human Computer Interaction in Biomedicine

Required: We are no longer requiring a textbook for this course, but will instead assign readings from articles and webpages. You may find the recommended textbooks helpful, but they are not required.

Recommended:

"User Interface Design and Evaluation" by Debbie Stone, Caroline Jarrett, Mark Woodroffe and Shailey Minocha (Morgan Kaufmann, 2005).

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<tr>
<td>BMI 552/652</td>
<td>Research in Bioinformatics</td>
<td>Ellis Boudreau</td>
<td>Optional Text: “The Grant Application Writer’s Workbook” (“NIH- New Format”) by Stephen W. Russell and David C. Morrison which can be purchased at the following site: <a href="http://www.grantcentral.com/">http://www.grantcentral.com/</a></td>
</tr>
<tr>
<td>BMI 558/658</td>
<td>Biological Modeling and Simulation</td>
<td>Baratt</td>
<td></td>
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</table>
Suggested Textbook: "MATLAB: An Introduction with Applications" by A. Gilat (any edition). Free online interactive tutorials and a user’s guide can be found at the official MATLAB website http://www.mathworks.com

BMI 559/659 Computational Genetics McWeeney
TEXTBOOK
Required: Human Molecular Genetics, Fourth Edition
Authors: Tom Strachan and Andrew Read
Publisher: Garland Science; 4th edition

Non-Required Additional Texts for Reference:
Bioinformatics for Geneticists: A Bioinformatics Primer for the Analysis of Genetic Data
Author: Michael R Barnes; Wiley; 2nd edition
Journal articles will also be assigned in class each week.

BMI 560/660 Design and Evaluation in Health Informatics Mohan
Required: Practical Research: Planning and Design (12th Edition)
Authors: Paul D Leedy and Jeanne Ellis Ormrod
Paperback: 408 pages
Publisher: Pearson; 12th edition (February 19, 2018)
Language: English
ISBN-10: 9780134775654
**subject to change, check with instructor prior to purchasing text

BMI 561/661 Qualitative Research Methods Ash
Required Reading:
ISBN-10: 0-205-80938-3
Ash et al. chapter draft from Friedman and Wyatt's Evaluation Methods in Medical Informatics, 2nd ed. (distributed)

BMI 562/662 Quantitative Research Methods Totten/Eastman
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<tbody>
<tr>
<td>BMI 565/665</td>
<td>Bioinformatics Programming and Scripting</td>
<td>Mooney</td>
</tr>
<tr>
<td>BMI 567/667</td>
<td>Network Science and Biology</td>
<td>Guanming</td>
</tr>
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</table>
|          | ISBN-10: 1107076269  
| BMI 570/670 | Scientific Writing for Informatics Students | Pyle           |
|          | REQUIRED TEXTBOOK(S)                      |                |
| BMI 576/676 | Managing Ethics in Bioinformatics          | Valerius/Haendel |
|          | No Textbook required.                     |                |
BMI 582/682  Joanne Valerius

REQUIRED RESOURCES:
1. LaTour, K. and Eichenwald-Maki, S. Health Information Management, Concepts, Principles, and Practice, 4th Edition, (Textbook and Student Workbook) AHIMA. In order to get the textbook and student workbook, you need to order from the AHIMA at www.ahima.org. If you are a student member you will receive a discount.

BMI 584/684  Managing Clinical Classification & Reimbursement Systems
Valerius

REQUIRED RESOURCES:
1. LaTour, K. and Eichenwald-Maki, S. Health Information Management, Concepts, Principles, and Practice, 4th edition, (Textbook and Student Workbook) AHIMA. In order to get the textbook and student workbook, you need to order from the AHIMA at www.ahima.org. If you are a student member you will receive a discount.
2. Healthcare code Sets, Clinical Terminologies, and Classifications Systems
3. AHIMA virtual Lab (provided to student members of AHIMA)
4. Other resources will be listed in weekly assignments on Sakai.

BMI 586/686  REQUIRED RESOURCES: Students who are in the HIM track need to become student members of the American Health Information Management Association. Go to www.ahima.org to join as soon as possible. This membership will provide a discount for the textbook and will provide other resources needed for this course.

3. There will be several other readings, videos, and application assignments that will be posted on your weekly course materials in sakai.

BMI 588/688  Joanne Valerius

REQUIRED RESOURCES:
BMI 510NN/610 NN

Statistical Issues in Clinical Informatics (Nano Course)
Dian Chase

Required:

PHPM 524

PHPM 524 (Introduction to Biostatistics course)