

Biomedical Informatics Graduate Program
Course Schedule - Academic Year 2022-2023
Schedule Subject to Change

Yr	Qtr	Course #	Course Title	Instructor	Credits	Day	Please Note
22	Summer	BMI 501/601 *	Research	Varies	1.0-6.0	Varies	501 – requires 50x form
		BMI 502/602 *	Independent Study	Varies	1.0-4.0	Varies	Requires 50x/60x form
		BMI 503 *	Master’s Thesis	Varies	1.0-4.0	Varies	Recommended: BMI 570
		BMI 603 *	Dissertation	Varies	1.0	Varies	
		BMI 505/605 *	Reading & Conference	Varies	1.0-3.0	Varies	Requires 50x/60x form
		BMI 509/609 *	Practicum	Varies	1.0-3.0	Varies	Requires consent of Internship Coordinator
		BMI 510/610 *	Intro to Biomedical Informatics	W. Hersh	3.0	Online	Required course for certificate
		BMI 519/619	Business of Healthcare Informatics	V. Mohan	3.0	Online	Prereq: None
		BMI 523/623	Clinical Research Informatics	N. Weiskopf	3.0	Online with required synchronous sessions each Monday	Synchronous online discussion via Sakai each Monday 5:00-6:30 PST. Attendance is required.
		BMI 548/648-HY ⁺	Human Computer Interaction Hybrid (virtual synchronous sessions)	M. Hribar	3.0	Virtual hybrid. Synchronous sessions: Sept. 7 – 11, 9-4	Open to all informatics students 3.0 credits of MS NT residency requirement. See below for details.
		BMI 561/661 HY ⁺	Qualitative Research Methods	C. Hoekstra	3.0	Virtual hybrid. Synchronous sessions: June 27 th 4-6:30pm PDT July 29 th 4-6:30 PDT July 6 th 4-6:30 PDT July 8 th 4-6:30 PDT	Prereq: None
BMI 581 *	Capstone Project	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. Recommended: BMI 570. Signature required.		
BMI 590	Capstone: Internship	Varies	1.0-6.0	Varies	Prereq: approval of Internship Coordinator		

	BMI 654 *	Mentored Teaching Prep	Varies	1.0	Varies	Requires Mentored Teaching contract
	BMI 655 *	Mentored Teaching	Varies	3.0	Varies	Prereq: BMI 654
	BMI 657 *	Doctoral Symposium	Varies	3.0	Varies	
	BSTA 525	Intro to Biostatistics	Lin	4.0	Online	Prereq: Ready for R (see course catalog)
22 Fall	BMI 501/601 *	Research	Varies	1.0-6.0	Varies	501 – requires 50x form
	BMI 502/602 *	Independent Study	Varies	1.0-4.0	Varies	Requires 50x form
	BMI 503 *	Master's Thesis	Varies	1.0-4.0	Varies	Recommended: BMI 570
	BMI 603 *	Dissertation	Varies	1.0	Varies	
	BMI 505/605 *	Reading & Conference	Varies	1.0-3.0	Varies	Requires 50x/60x form
	BMI 505F/605F	Reading & Conference: Fellows Meeting	Cohen/ Weiskopf	1.0-3.0	Th	For PhDs, postdocs, CI Fellows only. 1 credit required every fall, winter, spring
	BMI 507/607 *	Seminar	Varies	1.0-4.0	Varies	
	BMI 509/609 *	Practicum	Varies	1.0-3.0	Varies	Requires consent of Internship Coordinator
	BMI 510/610 *	Introduction to Biomedical Informatics	W. Hersh	3.0	Online	Required course for certificate
	BMI 512/612 *	Clinical Information Systems	V. Mohan	3.0	Online	Required course for certificate Prereq: BMI 510
	BMI 517/617	Organizational Behavior	C. Hoekstra	3.0	Online	Prereq: None
	BMI 524/624*	Analytics for Healthcare	Pandit/Edinger	3.0	Online	Recommended: Familiarity with Tableau
	BMI 530	The Practice of Health Care	McDougall	3.00	Online	
	BMI 531/631	Probability & Statistical Inference for Scientists and Engineers	Chamberlin	3.0	T/TH	Instructor's signature required. BMI 531 is the prereq for BMI 543 Machine Learning. Prereqs: Linear algebra, multivariable calculus, familiarity with R.
	BMI 539A/639A	Deep Learning I	M. Asgari	3.0	M/W	Prereqs: BMI 543 Machine Learning, multivariate calculus, linear algebra, probability
BMI 540/640 *	Computer Science and Programming for Clinical Informatics	L. Walker	3.0	Online	Prereq: Introductory computer programming class in Python, Java, C or C++. Signature required.	
BMI 550/650	BCB: Algorithms	J. Jacobs	4.0	M/W	Bioinformatics track. Non-BMI students require department's permission. Prereq: BMI 565 (may be taken concurrently).	

	BMI 559/659	Computational Genetics	S. McWeeny	3.0	Online	Bioinformatics track or consent of instructor
	BMI 565/665	Bioinformatics Programming & Scripting	M. Mooney	3.0	Tues/Thu	Bioinformatics major or consent of instructor. Prereq: Introductory computer programming class. BMI 565 is prereq for BMI 550 (may be taken concurrently).
	BMI 570/670 *	Scientific Writing and Communication for Informatics Students	K. Pyle	3.0	Online	Limited to 20 students. Instructor signature required. Priority in registration given to master's and PhD students.
	BMI 581 *	Capstone Project	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. Recommended: BMI 570. Signature required.
	BMI 590	Capstone: Internship	Varies	1.0-6.0	Varies	Prereq: approval of Internship Coordinator
	BMI 654 *	Mentored Teaching Prep	Varies	1.0	Varies	Requires contract. Signature required.
	BMI 655 *	Mentored Teaching	Varies	3.0	Varies	Prereq: BMI 654. Signature required.
	BMI 657 *	Doctoral Symposium	Varies	3.0	Varies	Signature required.
	BSTA 525	Intro to Biostatistics	Markwardt, S	4.0	Online	
	HIP 511	Clinical Research Design I	HIP staff	2.0	Varies	Required for PhD CI track
	HIP 516	Protection of Human Subjects	Schuff, K.	1.0	4 days in November, see HIP website	Required for all Year 1 PhD students
23 Winter	BMI XXX	Image Processing	X. Song	3.00		Waiting for Grad Studies to okay
	BMI 501/601 *	Research	Varies	1.0-6.0	Varies	Varies
	BMI 502/602 *	Independent Study	Varies	1.0-4.0	Varies	Requires 50x/60x form
	BMI 503 *	Master's Thesis	Varies	1.0-4.0	Varies	Recommended: BMI 570
	BMI 603 *	Dissertation	Varies	1.0	Varies	
	BMI 505/605 *	Reading & Conference	1.0-3.0	Varies	Requires 50x/60x form	501 – requires 50x/60x form
	BMI 505F/605F	Reading & Conference: Fellows Meeting	Varies	1.0-3.0	Th	For PhDs, postdocs, and CI Fellows only. 1 credit every fall, winter, spring
	BMI 507/607 *	Seminar	Varies	1.0-4.0	Varies	
	BMI 509/609 *	Practicum	Varies	1.0-3.0	Varies	Requires consent of Internship Coordinator
	BMI 510/610 *	Introduction to Biomedical Informatics	W. Hersh	3.0	Online	Required course for certificate
	BMI 516	Standards for Interoperability	B. Orwoll	3.0	Online	Prereq: BMI 510
	BMI 518/618	Project Management	J. McCormack	3.0	Online	Prereq: None

BMI 527/627	Applied Data Science and Machine Learning	B. Hersh S. Chamberlin	3.0	Online	Prereq: BMI 540 or consent of instructor.	
BMI 535/635	Management and Processing of Large Scale Data	M. Mooney	3.0	Tue/Fri	Required in Bioinformatics track. Prereqs: BMI 550, BMI 565, familiarity with Linux and SQL	
BMI 538/638	Medical Decision Making	K. Eden	3.0	Online	Ability to complete basic algebra problems and knowledge of probability are necessary for this course. If you have questions, please email the instructor, Karen Eden, edenk@ohsu.edu .	
BMI 539B/639B	Deep Learning II	M. Asgari	3.0	M/W	Prereq: BMI 539A Deep Learning I, BMI 543 Machine Learning, multivariate calculus, linear algebra, probability or consent of instructor	
BMI 544/644 *	Databases	M. Lieberman	3.0	Online	Prereq: None but BMI 540 or 565 recommended	
BMI 551/651	Statistical Methods in Computational Biology	J. Jacobs	4.0	Tue/Thu	Bioinformatics track. Non-BMI students require department's permission. Signature required.	
BMI 552A/652A	Research Methods in Bioinformatics	E. Boudreau	1.0	Fri	Required of all BCB majors and all PhD students.	
BMI 560/660	Design and Evaluation in Health Informatics	V. Mohan	3.0	Online	Prereq: BSTA 525 or BSTA 511, OR consent of instructor	
BMI 581	Capstone Project	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. Recommended: BMI 570. Signature required.	
BMI 590	Capstone: Internship	Varies	1.0-6.0	Varies	Prereq: approval of Internship Coordinator	
BMI 654 *	Mentored Teaching Prep	Varies	1.0	Varies	Requires contract, instructor's signature.	
BMI 655 *	Mentored Teaching	Varies	3.0	Varies	Prereq: BMI 654. Signature required.	
BMI 657 *	Doctoral Symposium	Varies	3.0	Varies	Signature required.	
BSTA 525	Intro to Biostatistics	Srikanth	4.0	Online with synchronous sessions M/W		
BMSC 662	Bioregulation	Turker/McCullough	3.0	Tue/Thu	Bioinformatics track individual competency	
BMSC 663	Molecular Cell Biology	Enns/Musil	3.0	Mon/Wed/Fri	Bioinformatics track individual competency	
HIP 512	Clinical Research Design II	HIP staff	2.0	Varies	Required for PhD CI track	
OCTRI RCR	Responsible Conduct in Research	OCTRI staff	0.0	4 days in Feb./Mar. See website	Required of all Year 1 NIH (NLM, NIEHS, etc.) Postdocs.	
23 Spring	BMI 501/601 *	Research	Varies	1.0-6.0	Varies	Varies

BMI 502/602 *	Independent Study	Varies	1.0-4.0	Varies	Requires 50x/60x form	
BMI 503 *	Master's Thesis	Varies	1.0-4.0	Varies	Recommended: BMI 570	
BMI 603 *	Dissertation	Varies	1.0	Varies		
BMI 505/605 *	Reading & Conference	Varies	1.0-3.0	Signature required	501 – requires 50x form	
BMI 505F/605F	Reading & Conference: Fellows Meeting	Varies	1.0-3.0	Th	For PhDs, postdocs, and CI Fellows only. 1 credit every fall, winter, spring	
BMI 509/609 *	Practicum	Varies	1.0-3.0	Varies	Requires consent of Internship Coordinator	
BMI 510/610 *	Introduction to Biomedical Informatics	W. Hersh	3.0	Online	Required course for certificate	
BMI 512/612 *	Clinical Information Systems	V. Mohan	3.0	Online	Required course for certificate Prereq: BMI 510	
BMI 517/617	Organizational Behavior and Management	C. Hoekstra	3.0	Online	Prereq: None	
BMI 525/625	Principles and Practice of Data Visualization	S. Bedrick	3.0	Mon/Wed	Prereq: Familiarity with R programming	
BMI 537/637	Healthcare Quality	M. Lieberman	3.0	Online	Prereq: None	
BMI 543/643	Machine Learning	Song	3.0	Tue/Thu	Prereq: BMI 531, linear algebra, multivariate calculus, probability. Instructor's signature required.	
BMI 546/646	Software Engineering	A. Cohen	3.0	W	Prereq: BMI 540 or BMI 565	
BMI 546/646	Software Engineering	A. Cohen	3.0	Online	Prereq: BMI 540 or BMI 565	
BMI 552B/652B	Research Methods in Bioinformatics	E. Boudreau	1.0	Fri	Required of all BCB-track students and all PhD students.	
BMI 553/653	BCB: Readings in Bioinformatics	J. Jacobs	1.0	Tue	Required in Bioinformatics major	
BMI 576/676	Managing Ethics in Biomedical Informatics	J. Valerius	3.0	Online	Required for all master's and PhD students	
BMI 581 *	Capstone Project	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. Recommended: BMI 570. Signature required.	
BMI 590	Capstone: Internship	Varies	1.0-6.0	Varies	Prereq: approval of Internship Coordinator	
BMI 654 *	Mentored Teaching Prep	Varies	1.0	Varies	Requires contract. Signature required.	
BMI 655 *	Mentored Teaching	Varies	3.0	Varies	Prereq: BMI 654. Signature required.	
BMI 657 *	Doctoral Symposium	Varies	3.0	Varies	Signature required.	
HIP 513	Clinical Research Design III	HIP staff	2.0	Varies	Required for PhD HCIN major	
MGEN 623	Genetic Basis of Human Disease	S. Richards	3.0	M/W/F	Bioinformatics major individual competency in PhD	
Summer 23	BMI 501/601 *	Research	Varies	1.0-6.0	Varies	
	BMI 502/602 *	Independent Study	Varies	1.0-4.0	Varies	Requires 50x/60x form
	BMI 503 *	Master's Thesis	Varies	1.0-4.0	Varies	Recommended: BMI 570

BMI 603 *	Dissertation	Varies	1.0	Varies	
BMI 505/605 *	Reading & Conference	Varies	1.0-3.0	Varies	Requires 50x/60x form
BMI 507/607 (Tentative)	Seminar	Varies	1.0-3.0	Varies	501 – requires 50x form
BMI 509/609 *	Practicum	Varies	1.0-3.0	Varies	Requires consent of Internship Coordinator
BMI 510/610 *	Introduction to Biomedical Informatics	W. Hersh	3.0	Online	Required course for certificate
BMI 517/617 Hybrid+ TBD	Organizational Behavior and Management	C. Hoekstra	3.0	On campus dates: TBD	Prereq: None 3.0 credits of MS NT on-campus requirement
BMI 519/619	Business of Health Care Informatics	V. Mohan	3.0	Online	Prereq: BMI 510
BMI 548/648 Hybrid+	Human Computer Interaction Hybrid (distance and on-campus) Course	M. Hribar	3.0	On campus dates: TBD	Prereq: None. 3.0 credits of MS NT residence requirement.
BMI 581 *	Capstone Project	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. Recommended: BMI 570. Signature required.
BMI 590	Capstone: Internship	Varies	1.0-6.0	Varies	Prereq: approval of Internship Coordinator
BMI 654 *	Mentored Teaching Prep	Varies	1.0	Varies	Requires contract. Signature required.
BMI 655 *	Mentored Teaching	Varies	3.0	Varies	Prereq: BMI 654. Signature required.
BMI 657 *	Doctoral Symposium	Varies	3.0	Varies	Signature required.
BSTA 525	Intro to Biostatistics	Staff	4.0	Online	

2023 Hybrid Courses⁺						
Summer Term	BMI 536/636	Evidence-based Medicine	B. Hersh	3.0	Virtual hybrid. Synchronous sessions: W-F, August 11-13, 8am-12pm PST	Open to all informatics students 3.0 credits of hybrid requirement (MS NT) Prereq: None
Summer Term	BMI 548/648	Human Computer Interaction	M. Hribar	3.0	Virtual hybrid. Synchronous sessions: Th-M, Aug. 19-23, Time: TBD	On campus Open to all informatics students 3.0 credits of residency requirement (MS NT) Prereq: None

Summer 2022 registration begins May 09, 2022

Fall 2022 registration begins August 15, 2022

Winter 2023 registration begins November 28, 2022

Spring 2023 registration begins February 21, 2022

***Some pre-campus and post-campus coursework is required.** See Course Catalog at <https://www.ohsu.edu/school-of-medicine/medical-informatics-and-clinical-epidemiology/course-catalog> for details.

* Open to BMI degree seeking students only (includes graduate certificate students). Non-BMI students must obtain department permission.

500 level - Master's degree

600 level - PhD degree