Biomedical Informatics Graduate Program Course Schedule - Academic Year 2023-2024
Schedule Subject to Change

Yr	Qtr	Course #	Course Title	Instructor	Credits	Day	Please Note
23	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**	**Synchronous online discussion via Sakai each Monday 5:00-6:30 PST. Attendance is required.**
		BMI 536/636-HY[+]	Evidence _Based Medicine **Hybrid** (virtual synchronous sessions)	B. Hersh	3.0	Virtual hybrid. Synchronous sessions: Starting July 1st. Plan to attend synchronous classes August 14-16, 9am to 12pm	Open to all informatics students 3.0 credits of MS NT residency requirement. See below for details.
		BMI 581 *	Capstone Project	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. Recommended: BMI 570. Signature
		BMI 590	Capstone: Internship	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. 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**	**Johnson**	**4.0**	**Online**	
23	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/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 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 517/617	**Organizational Behavior**	**C. Hoekstra**	**3.0**	**Online**	**Prereq: None**

	BMI 524/624*	Analytics for Healthcare	Pandit/Edinger	3.0	Online	
	BMI 530	The Practice of Health Care	McDougall	3.0	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
	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. McWeeney	3.0	T	Bioinformatics track or consent of instructor
	BMI 565/665	BioInformatics Programing and Scripting	M. Mooney	3.00	T/Th	Bioinformatics Major or Consent of instructor. Pre-req: Introductory Computer Programing class. BMI 565 is Pre-req 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. Education Coordinator's consent required. Priority in registration given to master's
	BMI 581 *	Capstone Project	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. Recommended: BMI 570. Signature
	BMI 590	Capstone: Internship	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. 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 HCIN PhD track
	HIP 516	Protection of Human Subjects	Schuff, K.	1.0	4 days in November, see HIP	Required for all Year 1 PhD students
Winter 24	CS 527/627	Data Science Programing	Kain, A.	3.0	M/W	
	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	1.0-3.0	Varies	Requires 50x/60x form	501 – requires 50x/60x form
	BMI 505F/605F	Reading & Conference: Fellows Meeting	B. Hersh, L. Karstens	1.0	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 516/616	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**	**S. Chamberlin**	**3.0**	**Online**	**Prereq: BMI 540 or consent of instructor.**
	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
	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
	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 567/667	Network Science and Biology	G. Wu	3.00	M/W	Prereqs: background in linear algebra and calculus; knowledge in statistics. Some experience using an object-oriented
	BMI 581	Capstone Project	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. Recommended: BMI 570. Signature
	BMI 590	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.
	HIP 512	Clinical Research Design II	HIP staff	2.0	Varies	Bioinformatics track individual competency
	OCTRI RCR	Responsible Conduct in Research	OCTRI staff	0.0	4 days in Feb./Mar. See	Bioinformatics track individual competency
24 Spring	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	Signature required
	BMI 505F/605F	Reading & Conference: Fellows Meeting	Eden/Mooney	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	Signature required
	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**
	BMI 517/617	**Organizational Behavior and Management**	**C. Hoekstra**	**3.0**	**Online**	**Required course for certificate**
	BMI 525/625	Principles and Practice of Data Visualization	S. Bedrick	3.0	Mon/Wed	Prereq: Ready for R
	BMI 537/637	**Healthcare Quality**	**M. Lieberman**	**3.0**	**Online**	**Prereq: None**
	BMI 543/643	Machine Learning	Song	3.0	Tue/Thu	Prerequisites: Linear algebra, multivariable calculus, probability, programming language, BMI 531.
	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. Prereq none

	Course	Title	Instructor	Credits	Day/Format	Notes
	BMI 553/653	Readings in Bioinformatics and Computational Biology	J. Jacobs	1.0	Tue	Prereq: BMI 550 and BMI 551
	BMI 576/676	**Managing Ethics in Biomedical Informatics**	**J. Valerius**	**3.0**	**Online**	**Prereq: None.**
	BMI 581 *	Capstone Project	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. Recommended: BMI 570. Signature
	BMI 590	Capstone: Internship	Varies	1.0-6.0	Varies	Requires consent of Internship Coordinator. 30 credits of prior coursework
	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.
	HIP 513	Clinical Research Design III	HIP staff	2.0	Varies	Required for PhD HCIN major
Summer 24	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 *	**Introduction to Biomedical Informatics**	W. Hersh	**3.0**	**Online**	**Required course for certificate**
	BMI 519/619	**Business of Health Care Informatics**	**V. Mohan**	**3.0**	**Online**	**Prereq: BMI 510**
	BMI 548/648 **Hybrid+** HY+	Human Computer Interaction	M. Hribar	3.0	TBD	Prereq: None
	BMI 561/661 **Hybrid+** HY+	Qualitative Research Methods	C. Hoekstra	3.0	Virtual hybrid. Synchronous sessions: TBD	Prereq: None
	BMI 581 *	Capstone Project	Varies	1.0-6.0	Varies	Prereq: 30 credits of prior coursework. Recommended: BMI 570. Signature
	BMI 590	Capstone: Internship	Varies	1.0-6.0	Varies	Prereq: approval of Internship Coordinator. 30 credits of prior coursework.
	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**	

2024 Hybrid Courses+						
	BMI 548/648 **Hybrid+** HY+	Human Computer Interaction	M. Hribar	3.0	TBD	Prereq: None
	BMI 561/661 HY+	Qualitative Research Methods	C. Hoekstra	3.0	Virtual hybrid. Synchronous sessions: TBD	Prereq: None

Winter 2024 registration begins November 27, 2023

* 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