UCLA CTSI Training Program in Translational Science

MSCR Research/Biomedical Informatics
MD/MS Timeline for 2025-26

REQUIREMENTS: <u>32 units</u> required courses, <u>8 units</u> electives, <u>8 units</u> Biomath 596*

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*ELECTIVES: must be graduate-level (200 or 400) basic science courses, but can be in any department.
*BIOMATH 596: directed individual study with your assigned quantitative mentor.
*Note: Contact your quantitative mentor each quarter you take 596 to confirm units and study plan.

TRAINING YEAR

FALL

Courses	Projects
- Bioeng 220 - Bioeng M227 - Biomath 170A - Biomath 260C - Biomath 261	- When requested, submit research abstract for capstone committee selection - Finalize aims and hypothesis with your scientific mentor - Obtain dataset for cleaning from your scientific mentor - Meet with your assigned capstone committee

WINTER

Courses	Projects
- Biomath 265A - Biomath 266A - 4 units of elective - 4 units Biomath 596 with assigned quantitative mentor	- Work on statistical analysis plan (assigned to you) with quantitative mentor - Statistical analyses with your quantitative mentor - Meet with your assigned capstone committee

SPRING

Courses	Projects
- Bioeng M226 - Biomath 266B - 4 units of elective - 4 units Biomath 596 with assigned quantitative mentor	- Meet with your assigned capstone committee - Advance to Candidacy: When requested, submit ATC form and transcript - Finish manuscript draft (with scientific and quantitative mentors) for capstone committee review - Oral presentation of capstone to your full committee - Capstone committee submits results to Student Affairs Officer

2025-26 TPTS Course Offerings

Courses with * are required at some point during training. Others listed are suggested electives.

Fall Instruction: Sep 25 - Dec 12

Course	Title	Days	Time	Units	Instructor
* Bioeng 220	Introduction to Medical Informatics	-		2	
* Bioeng M227	Medical Information Infrastructures and Internet Technologies	-		4	
* Biomath 170A	Introductory Biomathematics for Medical Investigators	M/W	12:00 pm - 1:20 pm	4	Myung Shin Sim, Jeff Gornbein
* Biomath 170A Disc	Discussion for 170A	W	1:30 pm - 2:20 pm	0	Jeff Gornbein
Biomath 260A	Methodology in Clinical Research I: Clinical Trials	M/W	10:00 am - 11:20 am	4	Chi-hong Tseng
* Biomath 260C	Methodology in Clinical Research III: Observational Studies	M/W	8:30 am - 9:50 am	4	Teresa Seeman, Magda Shaheen
* Biomath 261	Responsible Conduct of Research Involving Humans	W	4:00 pm - 5:50 pm	2	Neil Wenger

Winter Instruction: Jan 05 - Mar 20

Course	Title	Days	Time	Units	Instructor
Biomath 259	Controversies in Clinical Trials	T	8:30 am - 9:50 am	2	David Elashoff, Veena Ranganath
* Biomath 265A	Data Analysis Strategies I*	M/W	12:00 pm - 1:20 pm	4	Jeff Gornbein
* Biomath 266A	Applied Regression Analysis in Medical Sciences	M/W	10:00 am - 11:20 am	4	Alexandra Klomhaus
Biomath 268	Analysis of Electronic Health Records	M/W	8:30 am - 9:50 am	4	Jeffrey Chiang
Biomath M262	Communication of Science (Grant/Journal Writing)	M/W	8:30 am - 9:50 am	4	David Elashoff, Veena Ranganath

Spring Instruction: Mar 30 - Jun 12

Course	Title	Days	Time	Units	Instructor
* Bioeng M226	Medical Knowledge Representation	-		4	
Biomath 260B	Methodologies in Clinical Research II	M/W	9:30 am - 10:50 am	4	Myung Shin Sim, David Elashoff
* Biomath 266B	Advanced Biostatistics	M/W	11:00 am - 12:20 pm	4	Nicholas Jackson, Li-Jung Liang
Biomath 267	Machine Learning for Medicine	M/W	1:00 pm - 2:20 pm	4	David Elashoff, Angshuman Saha
Biomath 269	AI Applications in Medicine	W	2:30 pm - 3:50 pm	2	Jeffrey Chiang, David Elashoff
Biomath 285	Introduction to High-throughput Data Analysis	M/W	1:00 pm - 2:20 pm	4	David Elashoff, Jin Zhou

Stats 102A: Introduction to Computational Statistics with R may be substituted for Biomath 265A