

GlycoMIP 2023 Summer School @ VT AGENDA

Monday, June 12 thru Friday, June 16

DAY ONE – Monday, June 12: “Glycomaterial Synthesis”

8:15 a.m.	Arrival, Registration, Distribution of Parking Passes (Undergrads)
8:45 a.m.	Welcome, GlycoMIP Overview (Maren Roman)
9:00 a.m.	Program Overview and GlycoBasics I/II Quiz (Linda Caudill and Ryan Porell)
9:20 a.m.	GlycoBasics III Lecture: Glycomaterial Applications (Instructor: Kevin Edgar)
10:10 a.m.	Break
10:20 a.m.	General Lab Safety Training (Instructor: Roberta Polak EH&S)
10:40 a.m.	GlycoMIP Facility Tour (Brady Hall and Ryan Porell)
11:00 a.m.	Synthesis I Lecture: Fundamentals (Instructor: Rich Helm)
11:50 a.m.	Lunch; GlycoMIP Scholar Presentation – Gurkeerat Kukal (Biocatalysis)
1:20 p.m.	Hands-On Polysaccharide Modification
2:00 p.m.	Synthesis II Lecture: AGA (Instructor: Brady Hall)
2:50 p.m.	Break
3:00 p.m.	Demonstration: Glyconeer® Automated Synthesizer (Instructors: Brady Hall, Ryan Porell)
3:40 p.m.	Synthesis III Lecture: Glycopolymers (Instructor: Michael Schulz)
4:30 p.m.	Adjourn: Group Social and Dinner (Hahn Pavilion)

DAY TWO – Tuesday, June 13: “Structural Characterization”

8:15 a.m.	Arrival, Parking Passes
8:30 a.m.	HPLC Purification and SEC Lecture (Instructor: Brady Hall)
8:50 a.m.	Mass Spectrometry/NMR Lecture (Instructor: Rich Helm)
9:50 a.m.	Break
10:00 a.m.	Demonstration: Glycan Release and Purification/Mass Spec & NMR Data Analysis (Hall, Porell, Shanaiah)
11:45 a.m.	Lunch; GlycoMIP Scholar Presentation – Abby Chinn (Glycomaterial Analysis)
1:15 p.m.	Chiroptical Spectroscopy Lecture (Instructor: Daniel Crawford)
2:15 p.m.	Demonstration: ChiralRAMAN/IR and Data Analysis (Hall, Porell)
3:15 p.m.	Hands-On Polysaccharide Modification, Continued
4:30 p.m.	Adjourn

DAY THREE – Wednesday, June 14: “Materials Characterization”

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8:15 a.m.	Arrival, Parking Passes
8:30 a.m.	Rheometry I Lecture: Fundamentals (Instructor: Chih-Cheng (Peter) Chang)
9:30 a.m.	Rheology Competition
11:40 a.m.	Group Photo – Hallway outside of Room 308, Steger Hall
11:45 a.m.	Lunch; GlycoMIP Scholar Presentation – Hu Young Yoon (Rheology)
1:15 p.m.	Rheometry II Lecture: Applications (Instructor: Ross Clark)
2:00 p.m.	Poster Session
3:00 p.m.	Thermomechanical Properties Lecture (Instructor: Robert Moore)
3:50 p.m.	Break
4:00 p.m.	Glycomaterials Data Analysis (Rheological, Thermal, Mechanical)
4:30 p.m.	Adjourn

DAY FOUR – Thursday, June 15: “Molecular Interactions and Modeling”

8:15 a.m.	Arrival, Parking Passes
8:30 a.m.	Carbohydrate Interactions Lecture (Instructor: Alan Esker)
9:30 a.m.	Demonstration: Surface Plasmon Resonance/Microscale Thermophoresis
10:45 a.m.	Coarse-Grained Modeling Lecture (Instructor: Sanket Deshmukh)
11:45 a.m.	Lunch; GlycoMIP Scholar Presentation – Fangxi [Toby] Wang and Lakshmi Kunche
1:15 p.m.	Demonstration: Modeling (Sanket Deshmukh)
1:45 p.m.	Data Analysis
2:30 p.m.	Adjourn; Optional Outdoor Event

DAY FIVE – Friday, June 16: “From Glycan to Glycomaterial”

8:45 a.m.	Arrival, Parking Passes
9:00 a.m.	Glycomaterial Design Workshop (Instructors: Ryan Porell & Maren Roman)
9:50 a.m.	Break
10:00 a.m.	Interactive Panel Discussion (Kevin Edgar, John Matson, Maren Roman, Valerie Welborn)
10:50 a.m.	Course Evaluations
11:15 a.m.	GlycoMIP Website Navigation and User Portal (Instructor: Lauren Mills)
11:30 a.m.	Course Summary (Linda Caudill and Ryan Porell)
11:45 a.m.	Adjourn