

Day	Date	Session	Time slot (ET)	Type	Venue	In person or remote	Topic	Lecturer/Instructor
1	Monday, March 31, 2025	Morning	8:45-9:15	Registration	A-level kitchen	In person	Check-in and coffee	
1		Morning	9:15-9:30	Welcome	NYSBC seminar room	In person	Welcome to SEMC and the NIH sponsored national centers	Led by NYSBC staff
1		Morning	9:30-10:00	Lecture 0	NYSBC seminar room	In person	Intro to tomography	Wei Dai (Rutgers University)
1		Morning	10:00-10:30	Lecture 1	NYSBC seminar room	In person	Intro to cryoFIB technologies for sample prep	Alex de Marco (NYSBC)
1		Morning	10:30-11:00	break	NYSBC seminar room	In person	break	
1		Morning	11:00-11:30	Lecture 2	NYSBC seminar room	In person	Cryo sample preparation and FIB-milling for cryoET investigations	Keith Hamilton (Rockefeller University)
1		Morning	11:30 - 11:45	Flashtalks	NYSBC seminar room	In person	Flashtalks from students	12 students expected
1		Morning	11:45 - 12:00	Sponsor talk	NYSBC seminar room	In person	SubAngstrom	Mark Ebrahim (SubAngstrom)
1		Lunch	12:00 - 13:00	Lunch	NYSBC seminar room	In person	Lunch	
1		Afternoon	13:00 - 13:30	Lecture 4	NYSBC seminar room	In person	Sample preparation workflows: Getting samples ready for tomography data collection	Geoff Perumal (TFS)
1		Afternoon	13:30 - 17:30	Practical I (rotating)	SEMC area	In person	Sample prep stations (rotate through): PRIMO patterning (demo/hands-on) Airyscan (demo) plunge freezing - HPF (hands-on) FIB (demo)	
1		Reception	17:30 -	Debrief	SEMC conference room	In person	Day 1!	recap
1		Reception	17:30 - 18:30	Reception	National center control room	In person	Reception	Light snacks and refreshments
2	Tuesday, April 1, 2025	Morning	9:00 - 9:30	Lecture 5	NYSBC seminar room	In person	Intro CryoET data acquisition strategies and software	Misha Kopylov (NYSBC)
2		Morning	9:30 - 10:30	Lecture 6 & Demo	NYSBC seminar room	In person	Scipion tomography pipeline (pre-processing)	Jose Luis Vilas Prieto (I2PC)
2		Morning	10:30 - 12:00	Practical II	National center control room	In person	Data collection with TOMO5/Tomolove SerialEM/SPACE tomo	4-5 microscopes (Krios and Glacios)
2		Lunch	12:00 -	Lunch	NYSBC seminar room	In person	Working pizza lunch during lecture and nextPYP	working lunch
2		Afternoon	12:15 - 17:30	Lecture 7 & Practical III	NYSBC seminar room	In person	Cryo-ET data processing tutorial using nextPYP	Alberto Bartesaghi (Duke University)
2		Afternoon	17:30 - 17:45	Debrief	SEMC conference room	In person	Day 2!	recap
3	Wednesday, April 2, 2025	Morning	9:00 - 9:45	Roundtable on Practical III (cc	NYSBC seminar room	In person	Tomography data processing with nextPYP (debrief)	Alberto Bartesaghi (Duke University)
3		Morning	9:45 - 10:15	Lecture 8	NYSBC seminar room	In person	Data processing: Sub-tomogram averaging pipelines	Jake Johnston (Columbia University)
3		Morning	10:15 - 10:30	break	NYSBC seminar room	In person	break	
3		Afternoon	10:30 - 12:00	Lecture9/Practical IV	NYSBC seminar room	In person	Sub-Tomogram processing practical (WARP/RELION)	Alister Burt (Genentech)
3		Morning	11:45 - 12:00	Photo	Outside	Group photo	Hope for sunny weather!	Group photo
3		Lunch	12:00 - 13:00	Lunch	NYSBC seminar room	In person	Lunch	Lunch
3		Afternoon	13:30 - 17:30	Practical IV (cont)	NYSBC seminar room	In person	Sub-Tomogram processing practical (WARP/RELION)	Alister Burt (Genentech)
3		Afternoon	17:30 - 17:45	Debrief	NYSBC seminar room	In person	Day 3!	recap
4	Thursday, April 3, 2025	Morning	9:00 - 10:00	Lecture 10	NYSBC seminar room	Remote	CryoET annotation and analysis & AMIRA demo	Tianbo Zhai and Mark McClendon (TFS - virtual)
4		Morning	10:00 - 10:30	Roundable	NYSBC seminar room	In person	EM challenges and new frontiers	Led by NYSBC staff
4		Morning	10:30-11:00	break	NYSBC seminar room	In person	break	
4		Afternoon	11:00-12:00	Lecture 11 & Practical VI prep	NYSBC seminar room	In person	Training Generalized Segmentation Networks Using Real and Synthetic Data	Matthew Swulius (Penn State University)
4		Lunch	12:00 - 13:00	Lunch	NYSBC seminar room	In person	Lunch	Lunch
4		Afternoon	13:00 - 17:00	Practical V	NYSBC seminar room	In person	CryoET annotation practical (Dragonfly)	Matthew Swulius (Penn State University)
4		Afternoon	17:00 - 17:15	Debrief	NYSBC seminar room	In person	Day 4!	recap
4	Friday, April 4, 2025	Reception	17:00 - 18:30	Reception	NYSBC seminar room	In person	Reception	Dinner and refreshments
5		Morning	9:00 - 9:15	Roundtable	NYSBC seminar room	In person	What's next - applying to NIH common fund cryoEM and cryoET centers	Led by NYSBC staff
5		Morning	9:15 - 10:00	Wrap up	NYSBC seminar room	In person	What did we do this week & post-training survey/debrief	Ed Eng (NYSBC)
5		Morning	10:00 - 12:00	10:00 - 12:00	SEMC area	In person	Choose your adventure: deeper dive into processing, waffle milling, cryoCLEM & PRIMO	Led by NYSBC staff
5		Lunch	12:00 - 13:00	Lunch	SEMC conference room	In person	Lunch to go or to stay	
5		Afternoon	13:00 - 16:00	Practical (cont.)	SEMC area	In person	Choose your adventure: deeper dive into processing, waffle milling, cryoCLEM & PRIMO	better bring gifts for your TAs if you stay this late