

Sponsored by Stony Brook University
 US Particle Accelerator School, 13-24 June, 2011, Melville, Long Island, New York

Course Instructors: John J. Barnard (JB) and Steven M. Lund (SL), Lawrence Livermore National Laboratory
 Recitations and Grading: Mikhail Dorf (MD), Lawrence Livermore National Laboratory

	06/13/11	Tuesday 6/14	Wednesday 6/15	06/16/11	Friday 6/17
9:00 am	Class Organization Introduction	Envelope Equations Current Limits JB	Injectors/Longitudinal Beam Physics I JB	Longitudinal Beam Physics II JB	Longitudinal Beam Physics III JB
- 10:30 am					
10:30 am	Envelope Equations JB	Transverse Dynamics II SL	Transverse Distribution Functions I SL	Transverse Distribution Functions II SL	Resonances SL
- 12:00 noon	Transverse Dynamics I SL				
12:00 noon	Lunch	Lunch	Lunch	Lunch	Lunch
- 1:00 pm					
1:00 pm	Transverse Dynamics I SL	Transverse Dynamics II SL	Tran. Dist. Functions I SL	Tran. Dist. Functions II SL	Resonances SL
- 2:00 pm					
2:00pm	Carry Over	Carry Over	Carry Over	Carry Over	Carry Over
- 3:00 pm		+ Recitation MD	+ Recitation MD	+ Recitation MD	+ Recitation MD
3:00 pm					
4:00 pm					

6:00 pm - ?	Homework 1	Homework 2	Homework 3	Homework 4	Homework 5
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	Monday 6/20	Tuesday 6/21	Wednesday 6/22	06/23/11	06/24/11
9:00 am	Envelope Modes in Cont Focusing and Halo JB	Pressure/Scattering/ Electron Effects JB	Heavy Ion Fusion/ Final Focusing JB	Review of Material JB	Sim. Techniques II SL
10:30 am					
10:30 am	Transverse Centroid and Envelope Models I SL	Transverse Centroid and Envelope Models II SL	Transverse Kinetic Stability I SL	Transverse Kinetic Stability II SL	Final Exam Review JB/SL/CP
- 12:00 noon					
12:00 noon	Lunch	Lunch	Lunch	Lunch	
- 1:00 pm					
1:00 pm	Tran. Cen. Env. Models I SL	Tran. Cen. Env. Models II SL	Tran. Kin. Stability I SL	Simulation Techniques I SL	
- 2:00 pm					
2:00pm	Carry Over	Carry Over	Carry Over	Carry Over	
- 3:00 pm	+ Recitation MD	+ Recitation MD	+ Recitation MD	+ Recitation MD	
3:00 pm					
- 4:00 pm					

6:00 pm - ?	Homework 6	Homework 7	Homework 8	Take-home final
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Carry Over: Over time lectures will be caught up prior to the Recitation to avoid falling behind schedule
 Homework: Collaboration with other students in class and hints from grader or instructors are allowed. (80% of grade)
 Take-Home Final: No collaboration allowed (20% of grade)