

Sponsored by Old Dominion University  
 US Particle Accelerator School, 19-30 January, 2015, Hampton, Virginia

Course Instructors: Steven M. Lund (SL) FRIB/Michigan State University and John J. Barnard (JB) Lawrence Livermore National Laboratory  
 Recitations and Grading: Daniel Winklehner (DW), Massachusetts Institute of Technology (MIT)

	Monday 1/19/2015	Tuesday 1/20	Wednesday 1/21	Thursday 1/22	Friday 1/23
9:00 am	Class Organization	Envelope Equations	Injectors/Longitudinal	Longitudinal Beam	Longitudinal Beam
- 10:30 am	Introduction	Current Limits	Beam Physics I	Physics II	Physics III
10:30 am	Envelope Equations	JB	JB	JB	JB
- 12:00 noon	Transverse Dynamics I	Transverse Dynamics II	Transverse	Transverse	Resonances
- 12:00 noon	SL	SL	Distribution Functions I	Distribution Functions II	SL
- 1:00 pm	Lunch	Lunch	Lunch	Lunch	Lunch
1:00 pm	Transverse Dynamics I	Transverse Dynamics II	Tran. Dist. Functions I	Tran. Dist. Functions II	Resonances
- 2:00 pm	SL	SL	SL	SL	SL
- 2:00pm	Carry Over	Carry Over	Carry Over	Carry Over	Carry Over
- 3:00 pm		+ Recitation DW	+ Recitation DW	+ Recitation DW	+ Recitation DW
3:00 pm					
4:00 pm					

6:00 pm - ?	Homework 1	Homework 2	Homework 3	Homework 4	Homework 5
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	Monday 1/26	Tuesday 1/27	Wednesday 1/28	Thursday 1/29	Friday 1/30
9:00 am	Envelope Modes in Cont	Pressure/Scattering/	Heavy Ion Fusion/	Review of	Sim. Techniques II
10:30 am	Focusing and Halo	Electron Effects	Final Focusing	Material	SL
- 10:30 am	JB	JB	JB	JB	
- 12:00 noon	Transverse Centroid	Transverse Centroid	Transverse Kinetic	Transverse Kinetic	Final Exam Review
- 12:00 noon	and Envelope Models I	and Envelope Models II	Stability I	Stability II	JB/SL/DW
- 1:00 pm	SL	SL	SL	SL	
1:00 pm	Lunch	Lunch	Lunch	Lunch	
- 2:00 pm	Tran. Cen. Env. Models I	Tran. Cen. Env. Models II	Tran. Kin. Stability I	Simulation Techniques I	
- 2:00pm	SL	SL	SL	SL	
- 3:00 pm	Carry Over	Carry Over	Carry Over	Carry Over	
- 3:00 pm	+ Recitation DW	+ Recitation DW	+ Recitation DW	+ Recitation DW	
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)