

Preliminary Class Schedule: Summer 2017 Semester
NE 7313: Nuclear Science & Engineering for Secondary Science Teachers

	Monday, June 12	Tuesday, June 13	Wednesday, June 14	Thursday, June 15	Friday, June 16
Time / Location:	<i>Old Alumni Center</i>	<i>STC- NT RPT Labs</i>	<i>Old Alumni Center</i>	<i>Old Alumni Center</i>	<i>(Transit to Callaway)</i>
8:00 AM	Introduction, Registration, Review of Process for Teaching Unit Development / Submission for Class Grade	<i>Transit to ATC – Mexico, MO</i>	Lab Discussions 8:30 Dose Units and Population Dose (Miller)	Reactor Fundamentals - Miller	(Please check out from dorm prior to departure) Meet at the Callaway Learning Center (next to Training Center)
9:00	Welcome: Vice Provost, MU Graduate School <u>Video</u> : "Radiation Naturally"	<u>LAB I</u> : GM tube Plateaus Cloud Chamber Demo (<i>Dry ice</i>)		Advanced Nuclear Power Plant Designs and Small Modular Reactors – Bond	Welcome and Overview 9:30 Simulator Tour
10:00	Big Bang to the Periodic Table - Speck	<u>LAB II</u> : Background Measurement	Radiation Protection - Miller	Waste Management – Yucca Mountain and WIPP - Miller	10:15 Emergency Preparedness and Fukushima Response 10:30 Dry Cask Storage
11:00	Radioactive Emissions & Decay-Miller	<u>LAB III</u> : Radiation Half-Life	<i>Population / Math video</i>	<i>Transit to MURR</i> 11:30 Nuclear Accidents: Fukushima and Chernobyl – Graham (<i>Box lunches</i>)	11:00 Lunch, with MO's Aging Electricity Infrastructure 11:30 Tour Safety Brief
12:00 PM	<i>Lunch – Plaza 900</i>	<i>Lunch</i>	<i>Lunch</i>		Plant Tours
1:00	Welcome: MU College of Education Radioactive Decay–Continued	Radiation Counting Statistics- <u>LAB IV</u> : Statistics	Radioisotopes in Biomedical Research - Hoffman	1:00 pm Group 1-Tour Group 2-XRF-Ferguson Group 3 – NAA-Spate	
2:00	Welcome: MU College of Engineering 2:30 Math Fundamentals - Rates of Decay - Miller	Interaction of Radiation with Matter <u>LAB V</u> : Inverse Square	Industrial Uses of Radiation - Miller	2:00 pm Group 1-XRF-Ferguson Group 2-NAA-Spate Group 3-Tour	2:30 p.m. Course Evaluation / Q&A on Teaching Units / Other Closing Items - Miller
3:00		<u>LAB VI</u> : Gamma-Ray Shielding	Introduction to Medical Imaging and Treatment Modalities - Miller	3:00 pm Group 1 –NAA-Spate Group 2 –Tour Group 3 –XRF-Ferguson	Class Adjourns
4:00	Radiation Interactions - Miller	<u>LAB VII</u> : Beta Attenuation & Thickness Gauging	Tour: Ellis Nuclear Medicine Clinics - Kennedy	4:00 pm Cyclotron Tour 4:15 pm GM Kit Training, CD Meter / Source Coupon Distribution (Miller, Graham)	
6:30	Interactions, continued			6:00 p.m. Les B. - Dinner w/Nuclear Professionals	