

**PHY397K - NUCLEAR PHYSICS**  
**Spring 2015, Unique numbers: 57115**  
**RLM 5.116, TTH 12:30 - 2:00 pm**

**Bookmark these URLs:**

- Website: <https://web2.ph.utexas.edu/~cmarkert/home/Teaching.html>
- Root: <https://root.cern.ch/drupal/>
- Inspires: <https://inspirehep.net/>

**INSTRUCTOR:**

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- Office phone: 512-471-8834

**HOMEWORK:** There will be reading assignments for the topics covers in class + prepared questions. A few homework assignments will be announced in class (Root-software exercise)

**CLASSWORK:** Students must be seated by 12:30 am. Attendance is required and will be documented.

**GRADING:**

Homework assignments, participation in discussions in class, attendance.

**DROP DATES:**([UT Austin Academic Calendar](#))

## Tentative Syllabus:

	<b>DAY</b>	<b>DATE</b>	<b>Subject and Comments</b>	
1	T	Jan 20	Introduction 1	
2	TH	Jan 22	Introduction 2	
3	T	Jan 27	Hadron, quark interactions, parton model, QCD,	
4x	TH	Jan 29	Hadron, quark interactions, parton model, QCD,	
5x	T	Feb 2	Collision, Participant, Spectator, Centrality	
6x	TH	Feb 4	Global Variables	
7x	T	Feb 10	Particle Detectors	
8	TH	Feb 12	Particle Detectors	
9	T	Feb 17	Tracking, Particle Reconstruction,	
10	TH	Feb 19	Particle Spectra, PID	
11	T	Feb 24	Strangeness	
12	TH	Feb 26	Strangeness	
13	T	Mar 2	Space time picture of Heavy Ion Collision	
14	TH	Mar 4	Freeze-outs	
15	T	Mar 10	Root - Installation	
16	TH	Mar 12	Root – Macro - Decay	
	T	Mar 17	Spring Break	
	TH	Mar 19	Spring Break	
17	T	Mar 24	Root - Pythia	
18	TH	Mar 26	Root – Pythia/Hijing	
19	T	Mar 31	Thermal and hydrodynamical models (Flow)	
20	TH	Apr 2	Thermal and hydrodynamical models (Flow)	
21	T	Apr 7	Charmonium	
22	TH	Apr 9	Charmonium	
23	T	Apr 14	Open heavy Flavor	
24	TH	Apr 16	Open heavy Flavor	
25	T	Apr 21	Jets	
26	TH	Apr 23	Jets	
27	T	Apr 28	Literature - Higgs	
28	TH	Apr 30	Literature - Higgs	
29	T	May 5	Future Experiments	
30	TH	May 7	Future Experiments	