PHYSICS 1251 **SYLLABUS** **SUMMER 2012**

Lecturer: Dr. Evan Large SM1082 (R Noon-2PM) large.29@osu.edu

WebAssign Administrator: Dr. Bolland SM 1106D bolland@mps.ohio-state.edu

Course Manager: Dr. Ziegler SM1036A, 292-2067 ziegler.2@osu.edu

Books:
- Fundamentals of Physics by Halliday, Resnick, & Walker, 9th edition (ISBN 978-1-1183-7326-2)
- Physics 132 Lab. Activities & Worksheets, 3rd Edition (ISBN: 978-0-7380-3709-7)
- Physics 133 Lab. Activities & Worksheets, 1st Edition (ISBN: 978-0-7380-3154-5)

Websites: http://www.physics.ohio-state.edu/~phys132/index.html/ (Basic Course Info)
https://carmen.osu.edu (Grades, Handouts)
https://www.webassign.net/osu/student.html (Homework)

Grades:

Item	Labs	Homeworks	Quizzes	Midterms	Final Exam	Total
Weight	120 (15%)	120 (15%)	160 (20%)	200 (25%)	200 (25%)	800 (100%)
Notes	10 each, 1 dropped		20 each, 2 dropped	100 each		

JUN	18	M	L1	Introduction, Charge, Conductors & Insulators, Coulomb's Law (CH 21)	
			L2	Coulomb's Law, Induced Charge	
	19	T	Lab 1	Group Work Session in Lab Room	
	20	W	R	Q&A	
			L3	Electric Field, Point Charges, and Field Lines (CH 22)	
			L4	Electric Field and Charge Distributions	**HW1 due 6/20 11:59 PM**
	21	Th	Lab 2	132 I – Electric Force and Electric Charge	
	22	F	R	**QUIZ 1**	
			L5	Electric Fields & Dipoles	
			L6	Flux & Gauss' Law (CH 23)	**HW2 due 6/24 11:59 PM**
	25	M	L7	Gauss' Law and Symmetry	
			L8	Gauss' Law and Conductors	
	26	T	Lab 3	132 II – Electric Field and Electric Flux	
	27	W	R	**QUIZ 2**	
			L9	Electric Potential and Energy (CH 24)	
			L10	Electric Potential and Point Charges	**HW3 due 6/27 11:59 PM**
	28	Th	Lab 4	132 III – Electric Potential	
	29	F	R	**QUIZ 3**	
			L11	Electric Potential ←→ Electric Field	
			L12	Potential & Capacitor Intro (CH 25)	**HW4 due 7/1 11:59 PM**
JUL	2	M	L13	Capacitors & Energy	
			L14	Current, Resistance, & Ohm's Law (CH 26)	
	3	T	Lab 5	132 IV – Capacitors and Energy	
	4	W	None	4th of July Holiday	
	5	Th	None	NO LAB	
	6	F	R	**MIDTERM 1**	
			L15	Resistors & Simple Circuits (CH 27)	
			L16	Complex Circuits (Kirchhoff's Laws)	**HW5 due 7/8 11:59 PM**

JUL	9	M	L17	RC Circuits	
			L18	Magnetic Fields and Forces (CH 28)	
	10	T	Lab 6	132 VI – Electric Circuits I	
	11	W	R	**QUIZ 4**	
			L19	Crossed Fields and Circular Motion	
			L20	The Law of Biot and Savart (CH 29)	**HW6 due 7/11 11:59 PM**
	12	Th	Lab 7	132 VII – Electric Circuit II	
	13	F	R	**QUIZ 5**	
			L21	Ampere's Law	
			L22	More Magnetic Field Scenarios	**HW7 due 7/15 11:59 PM**
JUL	16	M	L23	Faraday's Law & Lenz's Law (CH 30)	
			L24	Induction Examples & Induced Electric Field	
	17	T	Lab 8	132 – Magnetism IIA & IIB	
	18	W	R	**QUIZ 6**	
			L25	Inductors & RL Circuits (CH 31)	
			L26	LC/RLC Circuits & Oscillations	**HW8 due 7/18 11:59 PM**
	19	Th	Lab 9	132 – RL Circuits	
	20	F	R	**MIDTERM 2**	
			L27	Mechanical Oscillation & Traveling Waves (CH 16)	
			L28	Traveling Waves & Standing Waves	**HW9 due 7/22 11:59 PM**
JUL	23	M	L29	Sound Waves, & Interference (CH 17)	
			L30	Doppler Effect	
	24	T	Lab 10	133 III & IV – Standing Waves & Wave Superposition	
	25	W	R	**QUIZ 7**	
			L31	Electromagnetic Waves (CH 33)	
			L32	Polarization, Reflection, & Refraction (CH 35)	**HW10 due 7/25 11:59 PM**
	26	Th	Lab 11	133 V – Microwave Interference	
	27	F	R	**QUIZ 8**	
			L33	Double Slit Interference	
			L34	Thin Film Interference	**HW11 due 7/29 11:59 PM**
JUL	30	M	L35	Single Slit Diffraction & Diffraction Gratings	
			L36	Photons & The Photoelectric Effect (CH 38)	
	31	T	Lab 12	133 VI – Multiple Slit Interference	
AUG	1	W	R	**QUIZ 9**	
			L37	Matter Waves	
			L38	The Infinite Square Well & The Bohr Model (CH 39)	**HW12 due 8/1 11:59 PM**
	2	Th	Lab 13	133 IX – Spectroscopy	
	3	F	R	**QUIZ 10**	
			L39	Atoms (CH 40)	
			L40	Atoms & Concluding Remarks	

AUG 7 T FINAL EXAM, Smith 1153, 12:00 PM to 1:45 PM