Schedule - 218

	Reading due	Lecture date	Topic	Suggested activities, exercises, problems
A		2.1	10.1 Line, Angles, Parallel Lines (452)	ca201/1-3 ca202/1,2 460/1,3,4 463/2,4,5
B		2.3	10.1 Angle sum of a triangle	ca203/1-3 ca204/1 ca205/3 ca206/4,6,7 ca207/1-4 461/5-7 463/9 (hint: add line going up from b),10
C	2.7	2.8	10.2 Angles in the world (466), optional topic: seasons	ca209:earth-circumference 468/1,2 469/1ab,4a-f,5
D	"	2.10	10.3 Circles & Spheres (472)	475/1,2,4 476/1-3
~~E~~	~~"~~	~~"~~	~~10.3 GPS demo with strings and/or with diagrams~~	~~ca214~~
F	2.14	2.17	10.4 Triangle, Quadrilateral, Polygon, Definition, Relationship, Venn diagrams (477)	ca217 ca218-219 ca220-221 ca222 484/1-4 487/1-3,5abc,8ab,9,16ab,19a,20ab
G	2.21	2.22	10.6 Construction with compass/straight edge	ca223/1-3 ca224/4,6,7 484/5-7 487/5abc,8ab,9,16ab,19a,20ab
		2.24	**Review**	
		3.1	**Exam 1**	
H	2.28	3.3	11.1 Concepts of Measurement (493)	ca230/1,2,4 ca231/1-3 503/1-4,7-9 504/1-7
I	"	"	11.2 Length, Area, Volume & Dimension (505)	ca232/1,2 508/1abc,2,3 509/1,3,4,7
J	"	"	11.3 Error & Precision in Measurement (510)	ca233/1ab,2 513/1,2 513/1-3
K	3.7	3.8	11.4 Converting from One Unit of Measurement to Another I (514)	ca234/1abc,2 ca235/1-3 518/1-4 521/1-6,8-11
L	"	"	11.4 Converting from One Unit of Measurement to Another II	ca236/1,2 ca237/1-5 ca238/1,2 518/5-7 521/12-14,16,17,21,25
M	"	3.10	12.3 Areas of Triangles (535)	ca246/3,4 ca247/1-4 539/2,4 542/2,4-6,8-11,13
N	3.14	3.15	12.4 Areas of Parallelograms & Other Polygons (544)	ca248/1,2 ca249:12H/1,2 546/1,3 547/2,3,4abcd,6,7ab,8
O	"	3.17	12.5 Shearing: Changing Shapes without Changing Area; Cavalieri's Principle (550)	ca250/12J ca251/1-3 551/1,2 553/1,2ab,3ab,4ab,5abc,6
P	3.21	3.22	12.6 Areas of Circles and the Number Pi (554)	ca252:12L ca253:12N ca254/1 558/1,2,4,5 559/1,2,6,8
		3.24	**Exam 2**	

	Reading due	Lecture date	Topic	Suggested activities, exercises, problems
Q	4.4	4.5	12.9 Pythagorean Theorem, applications, proofs, proof with similar right triangles, President James Garfield's Trapezoidal proof (570)	ca261:12U ca262/1,4 560/1-3,6 563/1,3,6
R	"	4.7	13.1 Polyhedra, Other Solid Shapes (581)	ca265/1,2 ca267 586/1-4 587/2-4
S	4.11	4.12	13.2 Patterns, Surface Area (589)	ca269/13G:1,2 ca270/1-4 591/7-11 (Cylinder Area) 595/3ab,13ab (Pyramid Area) 596/11,12 583/11,12 (Cone Area) 596/15ab,16ab,17,20
T	"	4.14	13.3 Volumes of Solid Shapes (597); see YouTube	ca275:13N/1-3 ca277/2,3 603/2-7 604/2ab,4ab,5,7,8,12ab (cone) 17*,18ab,22,23ab,24
U	"	"	13.4 Volumes of Submerged Objects (607)	ca311/1-3 608/1,2ab,3 609/1-3
V	4.18	4.19	15.1 Formulating Statistical Questions, Gathering Data, Using Samples (674)	ca309/abcde ca310/1,2 679/1,2,3,4 680/3,4,5,8,9
W	"	"	15.2 Displaying Data and Interpreting Data Displays (681)	ca314/1-6 690/1-3 692/4,5,8ab
X	"	4.21	15.3 The Center of Data: Mean, Median, Mode (693)	ca321/1 ca322/2-4 ca323/2 ca325/1,2ab,3 ca333/1,2 698/2-6 700/2,4,5,7-10ab,13,14abc,17,20*,21*
Y	4.25	4.26	16.1 Basic Principles of Probability (723)	
Z	"	"	16.2 Counting Number of Outcomes (730)	ca346/1,3,4 ca357/1,2 733/1-4 735/2,3ab,5,6abc
AA	"	4.28	16.3 Calculating Probabilities in Compound Events (736)	ca351/16J:1,2 739/1abc,2,3 741/1-8,10ab,12,13,16ab
AB	"	"	16.4 Using Fraction Arithmetic to Calculate Probabilities (743)	ca352/1 ca354/1,3c 747/1-3 748/1,2,10,11
		5.3	Review	
		5.5	Review	
		5.10	Exam 3	
		5.12	Review	
		5.17	Review	
		TBD	Final	

Schedule - 113

	Reading due	Lecture date	WeBWorK due	Topic

	Reading due	Lecture date	WeBWorK due	Topic
A,B		2.1	2.21	Population and Sample. Data type.
C		2.3	2.21	Frequency table. **Lab 1.**
D,E	2.7	2.8	2.21	Histogram. Mean.
E,F	2.7	2.10	2.21	Grouped mean. Skew. Standard deviation. **Lab 2.**
G,H	2.14	2.17	2.28	Boxplot. Correlation.
I	2.21	2.22	3.7	Regression. **Review.**
		2.24		**Exam 1**
J,K	2.28	3.1	3.14	Probability. Add rule and multiply rule
L	2.28	3.3	3.14	Complement and conditional probability **Lab 3**
M,N	3.7	3.8	3.21	Counting principle. Probability distributions
O,P	3.7	3.10	3.21	Binomials. Standard normal.
Q,R	3.14	3.15	4.4	Normals. Sampling distributions.
S	3.14	3.17	4.4	CLT. **Lab 4.**
		3.22		**Review**
		3.24		**Exam 2**
T,U	4.4	4.5	4.18	Estimate p. Estimate μ.
	4.4	4.7	4.18	**Lab 5.**
V,W	4.11	4.12	4.25	Testing p. Testing μ
	4.11	4.14	4.25	**Lab 6.**
X	4.18	4.19	5.2	Testing $p_1 p_2$
	4.18	4.21	5.2	**Lab 7.**
Y,Z	4.25	4.26	5.9	Testing $\mu_1 \mu_2$ for independent samples. Testing $\mu_1 \mu_2$ for matched pairs.
	4.25	4.28	5.9	**Lab 8.**
AA,AB		5.3	5.16	Goodness of fit. Contingency tables
		5.5	5.16	**Lab 9.**
		5.10		**Review**
		5.12		**Exam 3**
		5.17		**Review**
		TBD		**Final**

Schedule - 233

	Reading due	Lecture date	WeBWorK due	Topic

	Reading due	Lecture date	WeBWorK due	Topic
A		2.1	2.21	Polar coordinates. Vectors in the plane.
B		2.3	2.21	Vectors in 3-space. Dot product.
C	2.7	2.8	2.21	Determinant.
D	2.7	2.10	2.21	Cross product.
E	2.14	2.17	2.28	Lines & Planes in 3-space. Quadratic surfaces. **Lab 1.**
F	2.21	2.22	3.7	Vector-valued functions. Calculus of vector-valued functions. Arclength and speed. **Lab 2.**
G	2.21	2.24	3.7	Functions of several variable. Limits and continuity in several variables.
H	2.28	3.1	3.14	Partial derivatives
I	2.28	3.3	3.14	Differentiability and tangent planes. **Lab 3.**
J	3.7	3.8	3.21	Gradient and directional derivatives. **Review.**
		3.10		**Exam 1**
K	3.14	3.15	4.4	Chain rule in several variables.
L	3.14	3.17	4.4	Optimization in several variables. **Lab 4.**
M	3.21	3.22	4.11	Langrange multipliers.
N	3.21	3.24	4.11	Integration in several variables. **Lab 5.**
O	4.4	4.5	4.18	Double integrals over general regions
P	4.4	4.7	4.18	Triple integrals.
Q	4.11	4.12	4.25	Integration in polar and cylindrical coordinates
R	4.11	4.14	4.25	Integration in spherical coordinates
S,T	4.18	4.19	5.2	Vector fields. Line integrals
U	4.18	4.21	5.2	Conservative vector fields. **Review.**
		4.26		**Exam 2**
V	4.25	4.28	5.9	Parametrized surface, surface integral, surface area
W	5.2	5.3	5.16	Surface integral of vector field. Divergence and curl.
X	5.2	5.5	5.16	Green's Theorem
Y	5.9	5.10	5.23	Stokes' Theorem
Z	5.9	5.12	5.23	Divergence theorem
		5.17		**Review**
		TBD		**Final**