Calculus IA/IB Schedule -- Fall 2012 & Spring 2013 v1.2 8/10/2012

(Note: Textbook References based on Third Custom Edition -- Blue cover)

MONTH	Dates	Topics	Hass-Wier-Thomas	Dugopolski	Exams & Misc. Notes
Sept	5-7	Functions & their graphs	Ch 1 S 1.1	S 1.5, 1.6	
	10-14	Transforming functions, Composite functions	Ch 1 S 1.2	S 1.7, 1.8 … 3.1 3.2	
	17-21	Trigonometric functions	Ch 1 S 1.3	Ch 3 except 3.5	
	24-28	Finish trigonometric functions; Exponential functions	Ch 1 S 1.3 & 1.5		
Oct	1-5	Rates of change, tangents and introduction to limits	Ch 2 S 2.1, 2.2 , 2.4		
	8-12	Infinite limits, Asymptotes (including a review of rational functions), and Continuity; **Review for Exam I**	Ch 2 S 2.5, 2.6	Ch 2 S 2.7	
	15-19	Secants/tangents & Lim of diff quotient (skip derivatives at a point)	Ch 3 S 3.1		**Exam #1 4PM Tues Oct 16** (Thru Hass 2.6; Excludes 1.4, 1.6, 2.3)
	22-26	Derivative as a function and Product/Quotient rules (Including derivatives of polynomials & exponentials)	Ch 3 S 3.2, 3.3		
Nov	29-2	Product & Quotient rules (cont.) & Derivative as rate of change	Ch 3 S 3.3, 3.4		
	5-9	Derivatives of trigonometric functions	Ch 3 S 3.5		
	12-16	Chain rule (including review of composite functions)	Ch 3 S 3.6	S 1.8	
	19-21	Chain rule (cont) & **Review for E2** [Thanksgiving break through 27]	Ch 3 S 3.6		**Exam #2 4PM Tue Nov 20** (Thru Hass 3.6)
Dec	26-30	Implicit differentiation	Ch 3 S 3.7		Last Quiz/Test Day Dec 3rd
	3-10	Implicit differentiation & Review for final exam	Ch 3 S 3.7		
	12-20	**Reading Day Dec 11th; FINAL EXAM WEEK (12th-20th)**			**FINAL EXAM (Hass thru S 3.7)**
	23-31	**HOLIDAY BREAK**			
Jan	→ 21	**INTERSESSION BREAK (ends 22 January)**			
Jan	22-25	Inverse functions (including arc trigonometric & logarithmic functions)	Ch 1 S 1.6 Ch 3 S 3.9 (180 & 181)	Ch 1 S1.9 & 3.5	Use Log handout to supplement
Feb	28-1	Derivatives of arc trigonometric & logarithmic functions (using implicit differentiation*)	Use supplement as primary methodology		Hass Ch 3 S 3.8 & 3.9 provides alternative approach
	4-8	Logarithmic differentiation & Related rates	Ch 3 S 3.8 (175), 3.10		
	11-15	Related rates (cont.) & Linearization & differentials	Ch 3 S 3.10, 3.11		
	18-22	**Review For Exam E1;** Extreme values of functions	Ch 4 S 4.1		**Exam #1 4PM Wed Feb 20** (Thru Hass 3.11)
Mar	25-1	Extreme values of functions (cont.) & Mean value theorem	Ch 4 S 4.1 & 4.2		
	4-8	First derivative test, concavity, and curve sketching	Ch 4 S 4.3, 4.4		
	11-15	**Spring Recess (ends 18 Mar)**			
	18-22	L'Hospital's Rule & Optimization	Ch 4 S 4.5 & 4.6		
	25-29	Continue optimization	Ch 4 S 4.6		
Apr	1-5	Newton's method & Introduction to Hyperbolic functions	Ch 4 S 4.7 Ch 7 S7.3		
	8-12	Antiderivatives	Ch 4 S 4.8		
	15-19	**Review for Exam 2**; Estimating w/finite sums	Ch 5 S 5.1		**Exam #2 4PM Wed Apr 17** (Thru Hass S 4.8 plus S7.3)
	22-26	Sigma notation, Limits of finite sums & Definite integrals	Ch 5 S 5.2 & 5.3		Last Quiz/Test Day Apr 24th
May	29-1	Definite integrals & **Review for Final Exam**	Ch 5 S 5.3		
	2	**Reading Day**	Ch 5 S5.3 & Review		
	3-13	**FINAL EXAMS**			**FINAL (Thru Ch 5 S 5.3 + 7.3)**

* Deriving the derivative formulas for the log and arc trig functions based on the properties of inverse function (pgs 184-186) is optional. Our minimum development of the derivative of the log and arc trig functions will use implicit differentiation (see pg 187 for derivative of log(x)). Hass does not show use of implicit differentiation for arc trig functions so a handout will be provided.