

<i>UNIT</i>	<i>WEEK</i>	<i>AP BENCHMARKS</i>	<i>INSTRUCTIONAL MATERIALS</i>	<i>ASSESSMENT</i>	✓
Introductory topics	1-3	1. Functions 2. Models 3. Families of functions	Anton Textbook pp. 1-93, 103-106 Swokowski Textbook pp. 3-11, 30-38, 47-49 Finney Textbook, pp 1-19, 41-51. Old AP Free Response Questions. (1969-present)	Weekly Tests in AP Format (Multiple choice and Free-response)	
Limits and Continuity	4-5	1. Limits a)Intuitively b)Computational c)Rigorous 2. Continuity a)At a point b)Functions c)Piecewise	Anton pp. 112-167 Finney pp. 55-81 Swokowski pp. 376-379 Barron's Set 2	Weekly Test in AP Format	
Derivative	6-8	1. Derivative as a tangent line 2. Derivative by definition 3. Techniques of differentiation 4. Derivatives of trig functions 5. Chain Rule 6. Differentials	Anton pp. 170 - 220 Finney pp. 82 - 149 Swokowski pp. 380-388, 113-118 Barron's Set 3	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz	
Logarithmic Exponential and Inverse Trig Functions	9-10	1.Inverse functions 2.Logarithmic functions 3.Exponential functions 4. Inverse trig functions 5. Derivatives 6. Implicit differentiation	Anton pp. 226 – 269 Finney pp. 32 – 39, 149 – 175 Swokowski pp. 118 – 123 Barron's Sets 2 and 3	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz Quarterfinal Exam in AP Format	

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Related Rates	11-12	Related Rates L'Hopital's Rule	Anton pp. 270 – 287 Finney pp. 232 – 245 Barron's Set 4	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz	
Analysis of Functions	13	1. Increase, Decrease, Concavity 2. Relative Extrema 3. First and Second Derivative Tests 4. Use of Technology	Anton pp. 290 – 323	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz	
Application of the Derivative	14-16	1. Maximum and Minimum (2.11.1) 2. Rectilinear Motion 3. Newton's Method 4. Mean Value Theorem	Anton pp. 330-376 Finney pp. 206- 232 Barron's Set 4	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz	
Integration	17-22	1. Indefinite Integral 2. Integration U-Substitution 3. Sigma Notation 4. Definite Integral 5. Fundamental Theorem of Calculus 6. Average Value	Anton pp. 378 – 457 Finney pp. 315 – 323, 268 – 276 Swokowski pp. 206 – 228, 246 – 253	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz Quarterfinal Exam in AP Format	
Applications of Definite Integral	23-25	1. Area between two curves 2. Volumes of revolution a) Disks b) Washers c) Shells	Anton pp. 262 – 282 Finney pp. 374 – 394 Swokowski pp. 304, 265 – 280 Barron's Set 7	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz	

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Differential Equations	26	1. Slope Fields 2. Differential Equations by Separation of Variables	Anton pp. 580 – 592 Finney pp. 320 – 323 Barron's Set 9	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz	
Integration by Parts and Special Integrals	27	1. Integration by Parts 2. Special Integrals	Anton pp. 516 – 530 Finney pp. 323 – 329 Swokowski pp. 415 - 424	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz Quarterfinal Exam in AP Format	
Exponential Growth and Decay and Final Topics	28	1. Exponential Growth and Decay (2.11.2) 2. Work	Swokowski pp. 364 – 369 Barron's Set 9	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz	
Review for AP Exam	29-32	Review all topics	Lederman sample exams Teacher-made review packet Old AP Free-Resonse questions 1985 Released AP Exam	Weekly Test in AP Format Biweekly sheets (6 AP Free –Response questions) with Hat Trick Quiz Quarterfinal Exam in AP Format	

UPPER MERION AREA HIGH SCHOOL

MATHEMATICS DEPARTMENT

INSTRUCTIONAL PLANNING GUIDE

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ANTON CALCULUS 6TH EDITION (BRIEF)

FINNEY, et.al. CALCULUS

SWOKOWSKI CALCULUS

BARRON'S AP CALCULUS 7TH EDITION

LEDERMAN PREP. FOR AP CALCULUS

EXAM 7TH EDITION

