Calculus II - Core Concept Cheat Sheet 01: Introduction to Calculus II **Study Tip** What is Calculus II **Know Prerequisite Knowledge** Calculus is the study of how things change. In a first Calculus course, you learn topics such as Limits, Differentiation, and Integration. In Calculus II, you will Mathematics in general is a cumulative subject. Calculus II is extend your knowledge of Calculus to other types of no exception. Knowing the prerequisite material will make functions and will learn additional techniques. Calculus II much easier. Prerequisite Material Includes: **Concept Map** Algebra Geometry Trigonometry Calculus II Graphing Limits More Types Differentiation of Functions Integration More Integration Techniques Study Tip Algebra Geometry **Read Your Math Book** Differential Equations Remember that your math book is there to help you Trigonometry Graphing understand the content: Coordinate Systems Read your book carefully. Calculus I Write down questions as you have them. Sequences Work through any steps that your book may skip & Series over. **Study Tip Ask Questions** Calclulus I Versus Calculus II If you have trouble understanding the material, ask questions. Much of Calculus II is a generalization of Calculus I. **Study Tip** In Calculus I, you In Calculus II, you will **Study With a Group** learned: learn: Your classmates are trying to learn the same material that you About derivatives and How to extend are. Take advantage of it. integrals of basic functions differentiation and integration to more types Organize a study group. of functions Compare lecture notes. What a derivative is and How to solve equations Work homework together. how to interpret it that involve derivatives **Study Tip** What an integral is and More advanced integration Get Something Out of the Group how to use it techniques Remember that you will be tested individually. When studying How to interpret derivative How to apply Calculus with a group, be sure to get something out of it. and integrals in the techniques to other rectangular coordinate coordinate systems Be an active member of the study group. system Work some exercises alone. **Topics In Calculus II** Study Tip The general topics included in Calculus I are: Focus on the Concepts Differentiation and Integration of Transcendental Everything may not make sense all at once. Focusing on the Functions concepts and how the procedures fit into the big picture will Advanced Integration Techniques help you succeed in Calculus II. **Differential Equations** . **Different Coordinate Systems** • Infinite Sequences and Series

How to Use This Cheat Sheet: These are the keys related this topic. Try to read through it carefully twice then recite it out on a blank sheet of paper. Review it again before the exams.