**Modified LESSON PLAN TEMPLATE**

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**Date Created: February 1, 2012**

**Subject(s): Calculus**

**Topic or Unit of Study (Title):** Chain Rule

**Grade Level:** 12

***Materials:*  Overhead projector or dry-erase board**

**Summary (*and Rationale*):**  Understanding the chain rule is a vital step in learning the basics of calculus. The chain rule is used all throughout the course as well as in future courses in calculus.

**I. Focus and Review (Establish Prior Knowledge): [15 minutes] How do we find derivatives of complex functions? How could we find the derivative of y=(6x-5) ² using explansion? How would you find that derivative using the product rule?**

**II. Statement of Instructional Objective(s) *and Assessments*:**

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| **Objectives** | **Assessments** |
| 1.      When given five differentiation problems, the student will apply the two forms of the chain rule and successfully complete at least four problems.  | 1. The last 30 minutes of class the students will be given five problems on a worksheet consisting of both types of chain rule which the student will solve at least four problems successfully.

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State the objective: [2 minutes]

Assessment: [30 minutes]

**III. Teacher Input (Present tasks, information and guidance):** [30 minutes] Go over the different ways to solve example stated in “focus and review.” The introduce the chain rule and the two different ways to use it in the example. Go over examples and students take notes.

**IV. Guided Practice (Elicit performance):** [8 minutes] Give an example for practice so students can ask questions when trying it on their own.

***V.* Closure (Plan for maintenance):** [5 minutes] Assign homework and hand out worksheet.

***VI.* Independent Practice: [30 minutes] Give students thirty minutes to complete the worksheet.**

**STANDARDS: 2.04.C**

**Plans for Individual Differences: I can give problems with a variety in difficulty which will allow students who understand quicker harder problems to work on.**

**References (APA style):**

**Pleacher, D. Lesoon #30, The Chain Rule. Retrieved from http://www.pleacher.com/handley/lessons/calculus/day30.html**