Course Outcomes Form
Northwest Indian College

Follow the *Instructions for Completing the Course Outcomes Form, which is* available on the *NWIC* Assessment Website at http://www.nwic.edu/assessment/course-outcomes
Please submit this form electronically to the chair of the Curriculum Committee

It is important to keep the following principles in mind when completing this form:

- Regardless of the mode of learning (i.e., face-to-face, Independent learning, ITV, online, etc.) or the location of a course, only one course outcomes form is to be created for each course.
- Regardless of the mode of learning or the location of a course, the **NWIC outcomes** and the **Course outcomes** must be the same for each course.
- The **Instructional activities** and the **Assessment/evaluation strategies** may differ depending on the mode of learning. Please indicate the **Instructional activities** and the **Assessment/evaluation strategies** that are different from the face-to-face class (e.g., "IL: Essay").

Last date this form was updated or edited	~~NEVER~~January 6, 2014
Course Number (e.g., ENGL 101)	MATH 124
Course Name (e.g., English Composition I)	Calculus & Analytic Geometry
List the names of all instructor(s) who participated in creating and approved these course outcomes (please consult with at least one other person)	Matteo Tamburini, Cassandra Cook, JiaJia Chang, Jerry Johnson (WWU)
List the main textbooks, readings or other resources used in this course (including title, year and publisher)	Calculus: Single Variable By Hughes-Hallet et al; Wiley

A. NWIC outcomes: From the *List of NWIC Outcomes*, select the *most* important outcomes you *assess* in this course (at least **one** NWIC outcome must be chosen- **maximum of four**).

NWIC outcome # (e.g., "Written communication: 2a. Write Standard English")	**Instructional Activities: How will students master this outcome? (e.g., solving problems, group activity)**	**Assessment/Evaluation Strategies: How will you measure this outcome? (e.g., student presentations, essays)**
Use analytical and critical thinking skills to draw and interpret conclusions from multiple perspectives including indigenous theory and methods	Ongoing individual and group problem-solving.	Students' ability to solve a variety of problems on the final exam.

B. Course outcomes: In order of priority, list the *most* important other learning outcomes for this course that you **assess** (**a maximum of 10**).

Other course outcomes: Complete the sentence – As a result of this course, students will be able to…	**Instructional Activities: How will students master this outcome? (e.g., solving problems, group activity)**	**Assessment / Evaluation Strategies: How will you measure this outcome? (e.g., student presentations, essays)**
Define, calculate (or estimate) and give a geometric interpretation of the limit of a function at a point	Presentation by instructor, group discussion, individual problem solving.	Individual interactions with students, observation of class discussion, assignments and quizzes.
Define continuity and differentiability, and give examples of functions that are discontinuous and/or not differentiable	Presentation by instructor, group discussion, individual problem solving.	Individual interactions with students, observation of class discussion, assignments and quizzes.
Interpret the derivative of a function at a point BOTH as the instantaneous rate of change in the quantity modeled AND as the slope of the tangent line to the graph	Presentation by instructor, group discussion, individual problem solving.	Individual interactions with students, observation of class discussion, assignments and quizzes.
Sketch the graph of the derivative and the antiderivative from the graph of a given function.	Presentation by instructor, group discussion, individual problem solving.	Individual interactions with students, observation of class discussion, assignments and quizzes.
Compute (or estimate) the value of the derivative at a point using the limit definition	Presentation by instructor, group discussion, individual problem solving.	Individual interactions with students, observation of class discussion, assignments and quizzes.
Compute the expression for the derivative of some elementary functions from the limit definition, and using "rules" of differentiation (including the power rule, product rule, quotient rule and chain rule)	Presentation by instructor, group discussion, individual problem solving.	Individual interactions with students, observation of class discussion, assignments and quizzes.

Interpret the value of the first and second derivative as measures of increase and concavity of functions	to be added	to be added
Apply basic optimization techniques to selected problems arising in various fields such as physical modeling, economics and population dynamics.	Presentation by instructor, group discussion, individual problem solving.	Individual interactions with students, observation of class discussion, assignments and quizzes.

C. List the NWIC outcomes and course outcomes from above on your syllabus.

D. Assess the NWIC outcomes and course outcomes, which are listed above, in your classes.