**Overview:** As a Science teacher certification candidate, you have been invited to observe in a school setting for the semester leading up to your placement as a student teacher. Assuming that the observation experience and your academic semester go well you will then be student teaching. Your goal during this semester’s observation is to lay the groundwork for a successful student teaching experience by learning as much as you can about your host school’s science department and curriculum, establish a professional working relationship with the department, and observing the teaching methodology at work in light of what you have learned and continue to learn in your coursework here at NIU. As the final clinical preceding student teaching, the 401 clinical calls on students to move beyond theory to practice.

You are not new to clinical observation and its unique nature. Always remember that you are a guest in the school, that the teachers and administration have agreed to assist you in your professional development, and that you must lay the groundwork for a successful experience. During your initial visit please share this information with school officials so they know what you are required to do throughout the semester. If they have any questions that you are unable to answer, please have them contact me directly.

This course meets in conjunction with the second methods class (BIOS 403, CHEM 495, GEOL 495, PHYS 495). As a result many of the issues and ideas that come out of your observations will coincide with discussions in that course. However, while the topics and the nature of the discussions are related, there are **distinct and separate meetings and requirements** for 401 in order to justify separate credit and to satisfy ISBE standards and requirements for all certification programs and its program completers. This class will meet for **six** selected meetings. Although the dates have been set, some adjustments may need to be made once all placements have been secured and the process of observations is underway. As well, you should expect at least one on-site visit by me to your placement and joint meeting with your cooperating teacher.

**Course Goals and Objectives:**

As the third of three NIU courses designed to meet the Illinois State Board of Education's required 100 clock hours of pre-student teaching experiences, BIOS 401 call on secondary teacher certification candidates in the Department of Biological Sciences, Chemistry and Biochemistry, Geology and Physics to develop new professional skills as well as to continue growing in terms of previous learning.
Candidates in this clinical will:

1. Continue to demonstrate their understanding of, and begin to apply the central concepts, methods of inquiry, and structure of the discipline as they contribute to the development of meaningful learning experiences.
   a. Students will become familiar with the school's curriculum and the particular subject matter most likely to be taught in the student teaching semester.
   b. In consultation with the cooperating teacher, students will develop and present at least two lessons in their discipline.

2. Continue to demonstrate their understanding of the diversity of learning styles and needs as they relate to teacher planning and instruction.
   a. Students will identify and observe learning and teaching styles in their major field.
   b. Students will observe how lessons are adapted to meet the needs of students’ different learning styles.
   c. Students will observe and develop ways to motivate students to learn.
   d. Students will observe and reflect upon the effectiveness of uses of technology in their major discipline.

3. Identify and apply a variety of strategies for establishing a positive learning environment in the classroom.
   a. Students will acquaint themselves with the department’s/school’s general policies and the rules of procedure concerning attendance, cheating, classroom disruptions, etc..
   b. Students will observe and develop strategies for establishing a positive and productive learning environment. This includes understanding, implementing and maintaining safety in the classroom and laboratory.
   c. Students will observe and develop classroom management strategies.

4. Continue to maintain Professional standards.
   a. Students will communicate professionally with the students and parents, faculty, and staff.
   b. Students will perform duties promptly and professionally.
   c. Students will dress professionally.
   d. Students will establish a professional working relationship with colleagues.

5. Continue to grow in the role of reflective practitioner.
   a. Students will complete assignments and written reflections on planning and instruction, assessment, academic language and classroom management.
Focus and Assignments:
The six seminar meetings will focus on the following topics:

8/27 Seminar 1:
- Teacher Performance Assessment (TPA): An Introduction
- 401 Expectations
- Getting started

Due by 9/10:
1. Core Language Arts and Technology Matrices. These matrices must be completed in their entirety—that is documented coursework and experiences as well as documented evidence.
2. TPA: Pick one class that you will be responsible for teaching next semester and complete Task 1: Print it and bring it to the next seminar.
   a. Reflection 1: Reflect on the classroom discipline, rules, and management of your cooperating teacher and how you would establish similar or different methods and on teacher administrative duties (gradebook, attendance, etc.). What are they, how are they done, and what are the complications inherent in them?

9/10 Seminar 2:
- Understanding Students’ Language Development and Associated Language Demands
- Scaffolding Students’ Academic Language and Deepening Content Learning
- Developing Students’ Academic Language and Deepening Content Learning
- Professional Share: Task 1 and journal entry

Due by 9/17:
1. Pick one lesson to observe. (Preferably an inquiry lesson) Before the lesson starts sit down and discuss the academic language requirements for the lesson with the cooperating teacher. What should students know before they start the lesson? What new academic language will be included in the lesson and how will that language develop the understanding of the nature of science and scientific inquiry? How will the lesson be differentiated to address students that may have varied language levels?
2. Observe the lesson and answer the questions in Task 2.
3. Reflection 2: Explain what academic language is. Did the cooperating teacher address the academic language demands of the lesson? What would you keep? What would you do differently? Were the needs of all students addressed? If not, how would you do this in the future?

9/17 Seminar 3:
- Planning for Scientific Understandings
- Supporting Student Learning in Science
- Supporting Student Understanding and Use of Academic Language
- Monitoring Student Understanding
- Professional Share: Task 2 and journal entry

Due by 10/1
1. Select an inquiry learning segment to teach. Create lesson plans for each lesson in the learning segment. Use the lesson plan format from Methods 1 and 2.
2. Answer the questions in Task 3.
3. Using the Planning rubrics score your lesson.
4. Journal entry: Discuss the difficulties that you encountered in planning and scoring the lesson. What might you do differently in your future lesson planning?

10/1 Seminar 4:
1. Teach and video tape one lesson in the segment. Using this videotape, create 2 segments of no more than 10 minutes each in length. The first clip must illustrate how you facilitated your student’s attention to science concepts and data quality while the students are collecting data or selecting data collected by others and recording it during scientific inquiry. (Data collected by others should come from large data sets from reputable sources where students have an opportunity to select and explore relationships between different variables. Many such data sets are available on the internet.) The second clip should illustrate how you actively engaged students in developing understanding of how to use scientific data and concepts to construct and evaluate explanations of a phenomenon. This video tape must be submitted to me by 10/25.
2. Watch the video of your teaching answer complete the questions in Task 4.
3. Use the rubric to score your performance.
4. Journal: Discuss the problems encountered during videotaping and how those might be addressed in the future.

10/15 Seminar 5:
- Analyzing Student work
- Using feedback to Guide Further Learning
- Using Assessment to Inform Instruction

Due by 11/12
1. Select 3 student work samples representing what students generally understood from the lesson and what a number of students were still struggling to understand. At least one of the students must have identified learning needs, such as an English language learner or a student with an IEP. Answer the questions in Task 5. (Use the lesson that you taught or the follow up for the lesson when the assessment was completed.)
2. Use the rubric to score your answers for Task 5.
3. Journal: Describe effective types of assessment you have observed in the 401 clinical. How were those assessments used to guide further learning? How were they used to inform instruction?

11/12 Seminar 6:
- Analyzing Teacher Effectiveness

Due by 3/12
1. Plan, teach and videotape a second lesson.
2. Answer the questions in Task 6 about the 2 videotaped lessons.
3. Use the rubric to score your answers for Task 6.
Requirements:

1. You must observe the class for a **minimum of 50 clock hours.** I would suggest observing more. While you must observe classes you should also participate in other school activities whenever possible, such as familiarizing yourself with the school, library/media center, visiting the guidance office, discussing school policies with administrative personnel, and any other activity which school officials believe would prepare you for student teaching. For each visit an appropriate time record and activity description must be maintained and submitted. These observation hours must be complete no later than Monday, December 3, 2012.

2. You are required to teach two full lessons in a science class. Both of these lessons must be recorded using **ONLY a digital video camera.** This requires a great deal of advance planning on your part and scheduling of your time. Select dates and topics as soon as possible. One lesson **must** be taught and taped no later than Friday, October 12, 2012 and be submitted **no later than Monday October 15th, 2012.** Please record on a digital camera and save as a DVD. **Non-digital recordings will not be accepted.** If you or your school does not have digital recording equipment it may be borrowed for a short period through Dr. Miller. The second lesson must be copied onto a DVD and submitted by the end of the clinical, Monday December 3, 2012.

   
   b. Page 1: your name, contact information, school name, and all CT contact information.
   c. Page 2: ILAS 401 Experience Time Record Sheets
   d. Page 3: Course descriptions of the classes you observed and/or will be student teaching (these may be taken from the school catalog).
   e. Pages 6 and 7: Lesson plans from each of the two lessons you taught. Key instructional materials and all assessment tools and or procedures used during the learning segment.
   f. Page 8: A written evaluation by the classroom teacher, using the Teaching Observation form, for both lessons you taught. Your teacher may handwrite these, so long as they use our form.

I am available to help you in any way that I can with this course, any component of your certification program and your pre-student teaching preparation.