

**Biology, Chemistry, Earth and Space Science, Environmental Science
and Physics Final Clinical Observations and Seminar**
**BIOS 401, CHEM 401, GEOL 401 and PHYS
401**

Northern Illinois University
Fall 2015
Monday 3:30 –5:30 p.m. Faraday 129
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**This course meets on the following dates: 8/24, 9/14, 9/28, 10/12,
10/26, 11/9, 11/30**

(Please plan your schedule accordingly; dates may be subject to change)

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. You will also teach at least two lessons with the permission of your cooperating teacher and complete a "mini" edTPA. 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 **seven** 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 their students.
 - 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.

Class Schedule

Focus and Assignments:

The seven seminar meetings will focus on the following topics:

8/24 Seminar 1:

- 401 Expectations
- Professional Teacher Project
- Journal Entries
- Mini edTPA
- Context for learning
- Video permissions
- Guidelines for Confidentiality
- How to get to know your students

Due by 9/14:

1. TPA: Complete the Context for Learning template (it is on Blackboard) for all of the classes that you will be observing this semester: Print it and bring it to the next seminar.
2. Journal assignment 1: Reflect on the classroom discipline, rules, and management of your cooperating teacher and how you would establish similar or different methods. Also reflect on teacher administrative duties (grade book, attendance, etc.). What are they, how are they done, and what are the complications inherent in them?
3. Complete **Classroom Management assignment**.

9/14 Seminar 2:

- Professional Share: Classroom management.
- Short Review of Academic Language.
- **Look Ahead Document**
- Planning for Scientific Understandings/Engaging students in learning.
- Supporting Student Learning in Science
- Planning Assessments to monitor and Support Student Learning
- Selecting a lesson to teach

*Start thinking about what lesson you would like to teach for the mini edTPA

Due by 9/28:

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? What is the main academic language function (analyze, explain, interpret or justify with evidence) that will be essential for student learning within the central focus of this lesson? What supports will the teacher have in place to assist students in using the language function correctly and effectively? How will the lesson be differentiated to address students that may have varied language levels?
Journal Entry 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?
2. Complete **Assignment 1 and 2 of the Professional Teacher Project (PTP)**.
3. Hand in all video permission forms.
4. Provide documented proof (document signed by cooperating teacher) that you know the students names in all of the classes you will teach in student teaching.

9/28 Seminar 3:

- Professional Share: **Assignment 1 and 2 of PTP** and journal entry
- Planning Issues
- RESUME WRITING

Due by 10/12

1. Select an inquiry learning segment to teach (3-5 lessons). Create lesson plans for each lesson in the learning segment. Use the lesson plan format from Methods 1.
2. Answer the questions in Task 1 of the edTPA Handbook. **Talk to your cooperating teacher before trying to answer Prompts 2 and 3.**
3. Using the Planning rubrics score your lesson. Include this with your plans.
4. **Journal Entry 3:** Discuss the difficulties that you encountered in planning and scoring the lesson. What might you do differently in your future lesson planning?

10/12 Seminar 4:

- Professional share: Lesson planning
- Learning Environment
- Engaging Students in Learning
- Deepening Student Learning during Instruction
- Analyzing Teaching
- Videotaping the lesson
- Examples of videotaped lessons

Due by 11/9:

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. After you teach the lesson administer a formative or summative assessment. The data from this assessment will be used in Task 3. The video tape must be submitted to me by 10/25.**
2. **Watch the video of your teaching answer complete the questions in Task 2**
3. **Use the rubric to score your performance.**

Due by 10/26

1. **Journal Entry 4:** Discuss the problems encountered during videotaping and how those might be addressed in the future.
2. **Complete assignment 3 of the Professional Teacher Project.**

10/26 Seminar 5:

- Professional Share: Video Taping and Assignment 3 of the Professional Teacher Project
- Analyzing Student work
- Aligning Assessments with Objectives
- Using feedback to Guide Further Learning
- Using Assessment to Inform Instruction

Due by 11/30

1. Complete an analysis of the selected assessment in order to determine if the learning outcomes have been met and to what degree.
2. Select 3 student work samples representing what students generally understood from the lesson and what a number of students were still struggling to understand. Answer the questions in Task 3. (Use the lesson that you taught or the follow up for the lesson when the assessment was completed.) **You may need to have a conversation with your cooperating teacher in order to answer the prompts with depth of understanding.**
3. Use the rubric to score your answers for Task 3.
4. **Journal entry 5:** 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?
5. **Assignments 5 and 6 of the PTP.**

11/9 Seminar 6:

- **Mock Interviews**

11/30 Seminar 7:

- **Professional Share: Leadership**
- **Wrap up: Reflections**
- **Student teaching**
- **Student Teacher Orientation**

Due by 12/7

1. **Second videotaped lesson. Full class. No edits. Compress and Upload to Blackboard.**
2. **Documented proof (signed by a professional) that you attended a PLC meeting, board meeting and Booster club meeting with reflections from each meeting. (See the Professional Teacher Assignment)**
3. **Deep Reflection: What will you do to make the edTPA manageable during student teaching?**

Requirements:

1. You must observe the class for a **minimum of 40 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 1, 2012.
2. You are required to teach two full lessons in a science class (minimum). 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. The edTPA lesson *must* be taught and taped no later than Friday, October 31, 2014 and be submitted **no later than Monday, November 9, 2015**. *Please record on a digital camera and upload it to Blackboard*. The second lesson must be uploaded to Blackboard by the end of Monday, December 1, 2014. You will not be required to answer the edTPA prompts for the second lesson.
3. You must submit the following documents no later than Dec. 7, 2015.
 - a. Page 1: your name, contact information, school name, and all Cooperating Teacher contact information.
 - b. Page 2: 401 Experience Time Record Sheets.
 - c. Page 3: Course descriptions of the classes you observed and/or will be student teaching (these may be taken from the school catalog).
 - d. Page 4: A written evaluation by the classroom teacher, using the Teaching Observation Form, for both lessons you taught. Your teacher may handwrite these however they must use our form.

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