

Accommodations for Students with Disabilities: If you have a disability for which you are or may be requesting accommodations, please contact both your instructor and the Office of Academic Support Services, University Center C212 (610-758-4152) as early as possible in the semester. You must have documentation from the Academic Support Services office before accommodations can be granted.

Lehigh University Fall, 2008

Course Title: Technology in School Settings

Course Number: TLT 450

Classroom: B-13

Time: Tuesdays, 7:00-10:00 pm

Instructor: Thomas C. Hammond, PhD

Office: Iacocca Hall, A119

Office Hours: By appointment

Office Phone: 610.758.3259

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Course websites:

- Blackboard site (private information) accessible via <http://bb.lehigh.edu>
- Course wiki (public information) at http://hammond.seedwiki.com/wiki/hammond/tlt450_2008c
- Course bookmarks at <http://del.icio.us/tchammond/TLT450?setcount=100>

Course Description

Focused examination of problems, key issues, and approaches to the use of technology in school settings.

Topics vary, centering around a student-directed problem-based learning experience.

This course builds upon the foundation laid in LST 401 and TLT 406/407 to apply the skills and design principles learned during these courses to an actual instructional need in a Bethlehem-area classroom.

Course Format

This course is composed of *synchronous* and *asynchronous* activities. Synchronous activities occur live and face-to-face, while asynchronous activities may take place at different times for different learners. Face-to-face synchronous sessions will be primarily presentation- and discussion-based and will take place on campus and in Bethlehem area schools. Asynchronous activities will include readings, handouts, reviewing and posting online materials, and working on course-related activities. These activities will take place through the course blog, wiki, and Blackboard site.

Because some of the content for this course is delivered asynchronously, we are freer in our synchronous sessions to cover application and synthesis of the concepts covered. This means we may meet slightly less often than in a traditional course. While not having as many formal class meetings gives you the freedom to accommodate your schedule more easily, it is up to you to keep up with the asynchronous activities so that you gain the most you can from our synchronous sessions.

In addition to class meeting times, you will be interacting with a Bethlehem area classroom teacher, observing and supporting him/her in technology-mediated instruction. This collaboration with a classroom teacher provides the basis for the major undertaking in the course, the field project. In addition to this project, you will complete several additional supporting assignments.

Course Goals

1. To increase your understanding of technology uses in K-12 settings through
 - a. consulting with K-12 educators,
 - b. finding technology resources,
 - c. implementing those resources,
 - d. evaluating the effectiveness of the resource in the classroom, and

- e. understanding implementation issues that arise.
2. To develop your own familiarity and facility with technology tools and concepts through
 - a. Managing a personal blog or wiki, and
 - b. Interacting on a course blog and classmates' blogs

Course Assignments

During the semester, students are responsible for

1. Attendance & Participation: Students are expected to attend every class session. In the event of an emergency or unavoidable conflict, students are to contact the instructor ahead of time (if at all possible) to explain the absence and suggest an alternative means of covering the content.
2. Writing to learn: This course relies heavily on readings to inform the classroom discussion and project work. A useful strategy for maximizing your benefit from these readings is writing to learn: Informal responses to readings, class discussion, classmates' writings, and so forth. To carry out this writing to learn in a secure, communal space, Blackboard wiki pages will be used. Some writing will be required (i.e., specified by the instructor); other writing will be optional.
3. Presentations: During the course, each participant must make two presentations on instructor-assigned topics to the class. Some presentations may be done as part of a group, others are done solo.
4. Project: The heart of course is working in an actual educational context, addressing challenges of teaching, learning, and administrating. Accordingly, students will identify, execute, and document a field experience. Participants who have their own classroom can conduct this project with one of their own classes; participants who do not have a classroom must work as a consultant to a K-12 teacher or identify an alternative assignment in consultation with the instructor.

For detailed descriptions of the assignments, review the "Detailed specifications of assignments" section at the end of the syllabus

Course grade

The course grade will be a composite of three scores: the course project, the "tools in schools" presentation, and a combined attendance/professionalism and writing to learn grade. Below is a table describing the components and weights of the assignments. Again, detailed descriptions of the assignments are available in the "Detailed specifications of assignments" section at the end of the syllabus.

Nota Bene:

- All work is to be original to you (i.e., you produced it) and original for the purposes of this class (you produced it for the specific context of an assignment for the course).
- Assignments that have been submitted for other courses at Lehigh or elsewhere will not be accepted. If you are uncertain about this policy and your work, please talk to the instructor.
- Assignments can be turned in on paper or electronically (e.g., via an email attachment or by posting to Blackboard or another website), or in a combination of both. Assignments submitted electronically will be returned with typed comments; assignments submitted on paper will be returned with hand-written comments.
- Unless otherwise announced, all work is due at the start of class on the date indicated on the syllabus. Unless otherwise announced, absent students may turn in overdue assignments no later than 4:00 pm the day following the missed class.
- Overdue assignments will be marked down one increment a letter grade for each day submitted late. For example, an assignment submitted 1 day late would receive a maximum of an A-. An assignment submitted two days late would receive a maximum grade of B+.
- The university policy on academic dishonesty will be vigorously pursued. When in doubt, cite, and when experiencing difficulty with an assignment, communicate with the instructor. If these practices are not followed, the instructor cannot give you the benefit of the doubt.

Assignment / Component	Description	Percentage of grade	Approx. due date
<p>"Tools in schools" presentation (and handout)</p>	<p>Identify a technology tool that YOU ARE PERSONALLY FAMILIAR WITH in an educational setting. Tools can be either for instruction (e.g., PowerPoint, Google Earth, UnitedStreaming) or administration (e.g., k12planet.com, GradeQuick).</p> <p>Prepare a presentation that (a) describes the tool, (b) provides example(s) of the tool in action, and (c) discusses the strengths and weaknesses of the tool.</p> <p>Accompany your presentation with a single-page handout.</p> <p>After completing your presentation, upload your files (including the handout) to Blackboard</p>	20%	Sessions 4-10
Course project	<p>During the semester, you will identify, execute, and document a field experience. This field project can focus on instruction, administration, or other component of an educational setting.</p>		
Fieldwork blog	<p>Throughout the semester, you will write AT LEAST one blog entry PER WEEK recording your activities and thoughts. This blog will be kept in Blackboard.</p>	20%	(throughout; assessed at end)
Presentation (and handout)	<p>By the end of the semester, you will deliver a presentation that describes your field experience, summarizes your findings, and discusses future directions.</p> <p>Again, you are required to accompany your presentation with a single-page handout</p>	20%	Sessions 11-14

Documentation (final paper)	<p>You will document your project with a formal write-up that identifies and describes (a) the problem or challenge studied, (b) the process followed, and (c) the outcomes (intended vs. actual) as of the end of the semester. Conclude your documentation with (e) an evaluation of the project as implemented, and (f) suggestions for further investigation or refinement.</p> <p>This document is a formal paper. It should be no fewer than 12 pages, double-spaced, and should conform to all APA style guidelines. Citations to the literature should be made where appropriate.</p>	30%	<p>Session 14</p> <p>(Drafts turned in by session 11 will receive formative feedback)</p>
<p>Writing-to-learn</p> <p>&</p> <p>Attendance, participation, and professionalism</p>	<p>Throughout the semester, the face-to-face discussion in the classroom will be supplemented by an online discussion (typically conducted via a blog). You will contribute to the class blog as directed by the instructor and also make additional postings as indicated by your personal learning interests.</p> <p>Your presence and participation are required for every class meeting, and your behavior is expected to display a level of professionalism appropriate to a graduate level course in preparation for entering a public profession (working in K-12 schools). This professionalism should also be reflected in your online interaction via frequent and appropriate postings in class forums, sharing technology products and reflections, and responding to classmates' posts.</p>	10%	(throughout; assessed at end)

Course Grading Policy

You should submit your work promptly throughout the semester via Blackboard. The instructor will provide timely, formative feedback. It is up to you to make revisions based on this feedback. You may revise and re-submit some assignments within a reasonable period of time. Please include a summary of the changes you made to your final version when you turn it in.

All assignments will be graded according to a rubric, checklist, or other criterion list, made available to the students ahead of time. Each assignment will be evaluated out of 10 points.

At the end of the course, the points across all assignments will be averaged to create the student's final letter grade. (Because there will be multiple quizzes, all of a student's individual quiz grades will be averaged into one cumulative quiz grade, which will count for 5% of the course grade.)

The points will be translated to a letter grade via the following table:

A	94 - 100 points		C+	77 - 79 points
A-	90 - 93 points		C	74 - 76 points
B+	87 - 89 points		C-	70 - 73 points
B	84 - 86 points		D	60 - 69 points
B-	80 - 83 points		F	below 60

Note that grades round up or down at the discretion of the instructor; an 89.5 does not automatically become an A-. Rounding decisions will be made according to the demonstrated level of accomplishment in the graded assignments and in the course overall:

Letter grade	What it indicates
A	Excellent work that demonstrates a clear understanding of the material under study and a superior ability to utilize that material in the assignment submitted. Contains no errors in information or execution. When options for marks are involved, indicates successful completion of the highest level option.
B	A solid piece of work that demonstrates an understanding of the material under study and utilizes that material well in the assignment submitted. Usually fails to include some pertinent material or utilizes that material less well than would warrant assignment of an A. May contain minor errors in information or execution (e.g., typos). When options for marks are involved, indicates successful completion of more than the minimal level option.
C	Adequate work, that demonstrates a basic understanding of the material under study and which utilizes that material to some extent in the assignment submitted. Usually contains errors or omissions involving relevant material. May contain significant errors in execution or formatting (e.g., poor layout). When options for grades are involved, indicates successful completion of minimal level option.
D	Work that fails to demonstrate understanding of the material under study and fails to utilize relevant material in the assignment submitted. When options for marks are involved, indicates failure to complete successfully the minimal level option.
F	Work that is incomplete, inappropriate, completely incorrect, and/or was submitted late. This mark indicates severe problems that lead to questions about whether the student should be involved in graduate study.

Course materials

- No textbooks need to be purchased for this course; all readings will be available online.
- All students will need a website; students' Lehigh webspace will be adequate for this purpose.
- Other supplies that may be helpful, but are not required, are
 - headset + microphone (note that sets are available for checkout from Donna Toothman, secretary of the TLT program, in Iacocca A108)
 - USB drives or other portable memory, such as CD-Rs
 - a digital camera, for documenting field work (again, these are available from Donna Toothman)
- Students are encouraged to bring laptops to class. Be sure to set up your wireless connection so that you can access the Lehigh wireless network.

Student expectations

All assignments, whether graded or ungraded, formal or informal, must demonstrate professionalism and a commitment to learning at the graduate level. Specifically, assignments should be completed promptly, thoroughly, and with care / commitment to learning. Whenever possible, problems should be communicated to the instructor ahead of time, and solutions should be proposed.

Instructor expectations

I will comment on and return your assignments promptly. I will be available for discussion outside of class time as needed to clarify concepts, assignments, or evaluation. I respectfully decline to assist you with assignments or readings within the 24 hours immediately before class.

TLT 450: Detailed specification of assignments and assessments

Course project

The heart of this course is an extended, field-based project examining the use of technology in an educational setting.

Ideally, this setting is a K-12 classroom, and the use is student instruction.

However, I recognize that (a) your ambitions in IT may lie elsewhere (e.g., higher education, corporate training, etc.), (b) your work schedule might not permit spending time in classrooms during school hours, and (c) work in K-12 schools requires clearances that you possibly do not (yet) have. (For further information on clearances, see <http://www.lehigh.edu/education/tlt/clearances.html>.)

Accordingly, there are several ways to accomplish this project:

Projects in K-12 classrooms (clearances required)

1. *Intervention study*: Support a classroom teacher in identifying, designing, executing, and evaluating an instructional use of technology. The technology can be teacher-centered (e.g., using Google Earth to supplement a lecture) or student-centered (e.g., students creating digital documentaries). The focus of the study is identifying students' learning outcomes and attempting to establish the (potential) impact of the technology-mediated instructional strategy.
2. *Adoption study*: Observe several teachers' use of a common tool (or tools). What patterns of use emerge? What are the barriers to adoption? What are the differences among adopters and non-adopters?
3. *Needs assessment / tech inventory*: Work with a school or a department within a school to conduct either a needs assessment (e.g., What technologies are needed to teach math?) or tech inventory (What is the current state of the technology infrastructure and skills in the building?).
4. *Teacher case study*: Observe a single teacher over the course of two or more units of instruction. What technologies does s/he use? What instructional and/or administrative purposes are being served by these tools? How does the teacher's use of these tools conform to his/her beliefs about teaching, students, or the content area?

Projects outside of K-12 classrooms (no clearances required)

These projects can fall into the same categories as above (intervention study, adoption study, needs assessment, etc.) but will vary by setting.

1. *Higher education*: Colleges, universities, and community colleges.
2. *Corporations*: Businesses, departments, branch offices, etc.
3. *K-12 teacher training*: Prepare, implement, and evaluate training for in-service teachers in consultation with school instructional support staff.

Research paper on a topic to be determined

(Specifics to be negotiated with the instructor as needed.)

The project will begin as soon as you have identified a site, confirmed the participation of the cooperating authorities (e.g., building-level administrator, tech supervisor, etc.), and received approval from the instructor.

The project will conclude (for the purposes of this course) upon completion of the task or at the end of the semester, whichever comes first. (You are of course encouraged to continue your fieldwork beyond the end of the course.)

During the project you will keep a running blog that records your activities while in the field. This blog will be kept in Blackboard and MUST be updated AT LEAST once per week. On your blog, respect the privacy and dignity of your cooperating partners (e.g., teachers, administrators, students, et al.) by (a) not using names or identifying information, and (b) using appropriate, professional language. The blog does not have to be a formal piece of writing (i.e., it does not have to be APA-compliant) but it should

be respectful and any criticism should be constructive.

Toward the end of the project, you will prepare, deliver, and share a presentation for your classmates. This presentation should (a) describe your field experience, (b) summarize your findings, and (c) discuss future directions or refinements. Again, do not use names or other identifying information and be professional in your content and style.

Each presentation must be accompanied by a visual (commonly a slideshow, but feel free to use other formats, such as a concept map or a set of webpages) and a handout. The handout MAY NOT be a print out of the slides and should be limited to a single page. (Using both sides of the paper is accepted and encouraged!)

Each presentation's visual and handout must be posted to Blackboard by the session following the presentation.

By the final session of the course, you will turn in a 12-page (or longer) formal write-up of your field experience. The paper should

- Identify and describes the *problem or challenge studied*. For example, in an invention study, what is the impact of the teacher's use of technology upon students' learning outcomes? In a case study or adoption study, what patterns of use exist within the context of observation? In this section, you may wish to discuss the existing *literature* on the topic and/or setting you explored.
- Identify and describe the *process* undertaken. What steps did you follow? What was the *rationale* for this strategy? Who were the *participants* in this process?
- Identify and describe the *outcomes* of this process. Be sure to differentiate between the intended outcomes (what you hoped would happen) and the actual outcomes (what truly resulted).
- Provide an *evaluation* of the project: Did the project succeed in meeting all, some, or none of its goals? How satisfied were you (and the other participants) with the process and outcomes? Would you (or they) do this again, should the opportunity arise?
- Provide *suggestions for further investigation* or future refinements. If someone were to attempt to replicate your project, what changes would you recommend to their process or intended outcomes?

(Within the paper, you may wish to use the italicized terms as section headings.)

This document is a formal paper. It should be no fewer than 12 pages, double-spaced, and should conform to all APA style guidelines. Because this paper involves your own personal work and actions, feel free to use personal reference ("I," "my," etc.). as appropriate.

Citations to the literature should be made where appropriate.

"Tools in schools" presentation (and handout)

The content of tech integration is more vast than any one person can present. Some members of the class undoubtedly know more about certain topics and/or can present it better than I.

Additionally, IT users must be adept at picking up new tools or new concepts and acquiring an informed understanding in a relatively short amount of time.

Finally, part of becoming a skillful IT user is knowing how to communicate your knowledge to others. By posting your materials on the web, you're making them available for others' learning.

Accordingly, you will share your personal expertise with the class by preparing, delivering, and sharing a presentation about a technology tool currently used in an educational setting. The key constraint is that you **MUST HAVE PERSONAL EXPERIENCE WITH THIS TOOL.**

A classic example of an appropriate topic is PowerPoint -- we all have experience with it as students (consuming educators' presentations) and many of us have experience with it as instructors (preparing slideshows for others' benefit). Almost (?) everyone has some level of familiarity with the operation of the tool in composing and presenting slides. These personal experiences with the tool provide ample basis to prepare a presentation to the class on educational uses of PowerPoint.

Your presentation should (a) describes the tool, (b) provides example(s) of the tool in action, and (c) discusses the strengths and weaknesses of the tool for the purposes of instruction and/or administration.

Each presentation must be accompanied by a visual (commonly a slideshow, but feel free to use other formats, such as a concept map or a set of webpages) and a handout. The handout **MAY NOT** be a print out of the slides and should be limited to a single page. (Using both sides of the paper is accepted and encouraged!)

Each presentation's visual and handout must be posted to Blackboard by the session following the presentation.

Writing to Learn & Attendance, participation, and professionalism

Effective graduate-level work and success as a professional includes a set of behaviors that goes beyond meeting the requirements or specifications of assignments. On top of executing assignments, a highly-competent and successful instructional technologist is an active reader, listener, and participant in discussions, whether online or face-to-face. He or she effectively uses a variety of communication media (e.g., classroom and online discussions, formal and informal writing) and demonstrates a commitment to group learning and success, not just individual achievement. Finally, a successful instructional technologist demonstrates an internal commitment to learning, engaging in writing and discourse not just because it is required but because it is a tool for learning. This individual uses a laptop appropriately during class time (i.e., for supporting and extending the class discussion, not for attending to other duties or passing the time).

Accordingly, you will receive a grade for your display of these behaviors in the context of the course, with the levels described below.

Letter grade	What it indicates
A (9-10)	Attendance at all class sessions, on-task at all times, consistent productive contributions to discussions, writing-to-learn covers all or almost all readings & discussions, and all work posted to class websites--including iterative refinements.
B (8)	Attendance at all or almost all classes, on-task at all times, consistent productive contributions to discussions, consistent writing-to-learn, all work posted to class websites.
C (7)	Attendance at all or almost all classes, occasionally off-task, minimal to moderate participation in discussions, little or no writing-to-learn, not all work posted to class sites. A student operating in this mode is not extracting the full value of his/her graduate program.
F (0)	Failure to attend multiple classes, frequently off-task, minimal participation in discussion, minimal posting to online discussions, little or no writing-to-learn. A student operating in this mode should reconsider his or her enrollment in a graduate program.