Elementary and Secondary Teacher Leadership
Technology Applications in Education

Master's in Curriculum & Instruction
Information and Learning Technologies Program

Advising Handbook

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Congratulations on completing your elementary or secondary Colorado Teaching License and for choosing the Teacher Leadership: Technology Applications in Education option! By doing so, you have become part of the Information and Learning Technologies (ILT) program. The ILT program serves four main populations. Those who seek an endorsement and master's in School Librarianship are classroom teachers who want to move out of their classroom into a school library or media center. Those who enroll in the Instructional Design track are people who want to work in business and university settings. Their goal is to become (or are already and want to become better) trainers or consultants who work mainly with adult populations. A third group focuses on eLearning specifically – planning, designing, and delivering online learning programs.

The fourth (most important!) group consists of K-12 teachers who are eager to apply technology in their classrooms and schools. These teachers are often active on school and district technology committees, run special projects and labs, and provide technical support to other teachers. They also provide workshops and training to colleagues at professional conferences and in-service meetings. This is the group into which you should see yourself fitting in the years to come.

This handbook is designed to help you navigate your way through this final part of your master's degree in Curriculum & Instruction. When you make your decision to choose this option, the first step is to contact your academic advisor, Jannette Noonan (see cover page for contact info). She will include you in the student database for the program. Be sure also to cc Brent Wilson, your faculty advisor and coordinator of the ILT program.

**ILT-L - The Program Listserv**

All ILT students are required to sign up for the ILT Listserv. Course changes are announced there, as well as jobs, technology conferences, and other professional opportunities. You will receive the announcements in the email account you use to subscribe. You may also post announcements and respond to issues from that same email account. To subscribe, follow the instructions at:

http://thunder1.cudenver.edu/ilt/resources/listserv.htm
Course Requirements

The following courses make up the course of study for your program. Courses are offered evenings, Saturdays, and occasionally online. IPTE courses are typically completed prior to IT courses. IT courses may be taken at different times, with the ordering below

**Induction**

**IPTE 5050-1: Planning for the First Year of Teaching**
While this is an optional course, it is highly recommended for those getting ready to begin their first teaching job. It is offered in the summer and is run much like a conference or workshop, with breakout groups to choose from. The major assignment is to develop management and instructional systems that you will use during your first year of teaching. Speak to your advisor if you feel you already have these skills and do not need to take this course.

**Teacher Inquiry**

**IT 6720-3 Research in ILT**
This course builds on the skills you learned in completing your SAPS PBA. You will learn how to conduct action research in your classroom or school, demonstrating the impact of technology interventions.

**Collaboration and Change – take one of the following**

**IPTE 5080-3 Principles and Practices of Change in Schools**
This course takes you through change processes and how they work for individuals and in school settings. Learn why many aspects of public schools are the same now as they were 100 years ago and what you can do about it. The skills you learn in this class will enable you to become a more effective leader in your own school and classroom.

**SPED 5300-3 Collaborating in Schools and Communities**
This course leads you through a study of your school and the community in which it exists. You will conduct interviews and gather data from the various members of the school community and observe how their opinions impact your school. The skills you learn in this class will enable you to become a more effective leader in your own school and classroom.

**ILT Core: Complete the following courses (12 credits)**

**IT 5750-3 Human Issues Surrounding Learning Technologies**
This course explores the ethical, human, and legal issues surrounding the integration of learning technologies in education, thus providing a background for appropriate use in classrooms and schools. A course equivalent: IT 6750 Current Trends and Issues in IT.

**IT 5510-3 Integrating Technology in the Curriculum**
This course helps you develop strategies for using technology to teach toward the state content standards. You will develop a plan for your classroom of how to integrate technology and examine ways that technology can help you reach new levels of student achievement. A course equivalent: IT 6515: Leadership for Technology Integration.

**IT 5830-3 Workshop: Assessment and Technology**
ISTE requires specific expertise in technology and assessment. This course includes topics of data-driven decision-making; applied performance assessment; methods for assessing technology’s impact; and assessing beliefs and attitudes.

**IT 5999-3 Planning for Technology Environments**
You observe and participate in planning processes relating to learning technologies – in classrooms, schools, and districts. A course equivalent: IT 6999 Leadership and Practice in IT.

**ILT Elective: Select and complete an elective from among these or other options approved by your advisor:**

**IT 5710-3 Telecommunications and Networking in Education**
Learn about hardware, software, and network systems. Topics include lab management, troubleshooting, and planning. Note: This course is **required for the ITT endorsement**.

**IT 6930-3 Internship/Field Experience**
You connect expertise learned in courses to the specific needs of a classroom or school. Note: This course is **required for the ITT endorsement**.

**IT 5600-3 Multimedia Authoring: Web**
Learn to design and develop educational webpages, particularly for instruction.

**IT 5340-3 Digital Storytelling in the Curriculum**
Create a digital story and prepare an instructional unit that integrates digital storytelling into your subject matter.

**IT 5370-3 Digital Video for Interactivity**
Plan, script, shoot, edit, produce, and deliver video for web-based instruction and related educational purposes.
Course Schedule
IT courses are offered by the ILT program at a variety of times, including online, evenings, and Saturdays. Consult with your advisor and request a schedule of upcoming courses.

Instructional Technology K-12 Endorsement
In 2006, the Colorado Department of Education developed a path for teachers seeking an added endorsement in Instructional Technology. The Teacher endorsement level (ITT) is an appropriate goal for beginning teachers and requires 24 graduate semester credits, outlined below.

<table>
<thead>
<tr>
<th>CDE/ISTE Standard</th>
<th>Coursework</th>
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<tbody>
<tr>
<td><strong>1. Technology Operations and Concepts</strong></td>
<td>No required course</td>
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<tr>
<td>a. Knowledgeable about technology operations, concepts and skills, demonstrating continual growth in emerging technology operations/concepts.</td>
<td>Select an elective among approved Instructional Technology courses (IT 5710 recommended)</td>
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<td>b. Is able to apply technology to increase productivity, communications, and collaboration.</td>
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<td>c. Is able to locate, use, and evaluate technology resources.</td>
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<tr>
<td><strong>2. Planning and Designing Learning Environments and Experiences</strong></td>
<td>IT 5640 Technology of Student-Centered Learning Environments (3 semester credits) [or IT 6740 Learning Processes]</td>
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<tr>
<td>a. Can plan, design, model effective learning environments and diversify experiences, supported by technology.</td>
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<td>b. Can identify and apply technology and information literacy principles in organizational plans and management strategies.</td>
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<tr>
<td>c. Can apply current research to teaching and learning with technology.</td>
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<tr>
<td><strong>3. Teaching, Learning, and Curriculum</strong></td>
<td>IT 5510 Integrating Technology in the Curriculum (3 semester credits)</td>
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<tr>
<td>a. Can apply and implement curriculum plans that include methods and strategies for utilizing technology to maximize student learning.</td>
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<tr>
<td>b. Can develop, facilitate, manage, and teach technology-enhanced learning experiences that address content standards, and diverse learners.</td>
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<td>c. Is able to use technology with students for communications, presentations, problem solving, collaboration, development of higher-order thinking skills, and enhancing creativity.</td>
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<tr>
<td>d. Is able to apply methods of evaluation to determine appropriate uses of technology in teaching and learning.</td>
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<tr>
<td><strong>4. Assessment and Evaluation</strong></td>
<td>IT 5830 Workshop: Assessment and</td>
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<tr>
<td>a. Can apply technology to facilitate a variety of effective</td>
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C&I/ILT Program 5 Advising Handbook
You will see that your MA courses in ILT address the endorsement requirements. The full endorsement will require two additional courses (6 credits). You may complete these additional courses as part of your MA program, or return to complete these courses at a later time. In other words, the ITT endorsement is an option, but not a

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<th>5. <strong>Productivity and Professional Practice</strong></th>
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<td>Apply technology to enhance and improve personal productivity and professional practice.</td>
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<tr>
<td>a. Utilize technology tools to enhance, apply, and reinforce learning, and promote creativity.</td>
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<td>b. Construct technology enhanced models, prepare publications, produce other creative works.</td>
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<tr>
<td>c. Conduct research related to technology use in teaching and learning.</td>
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<tr>
<td>d. Use technology resources to engage in professional development and lifelong learning.</td>
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<tr>
<td>e. Participate in relevant professional organizations.</td>
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<tr>
<th>6. <strong>Social, Ethical, Legal, and Human Issues</strong></th>
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<tr>
<td>Understanding of the social, ethical, legal, and human issues surrounding the use of educational technology; and apply this understanding appropriately into educational practice.</td>
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<tr>
<td>a. Knowledge appropriate use of technology as aligned with national, state, and local laws, rules, and policies.</td>
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<td>b. Facilitation of equitable access to technology resources, safe use of technology, and application of technology with students of diverse backgrounds.</td>
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<tr>
<th>7. <strong>Procedures, Policies, Planning, and Budgeting for Technology Environments</strong></th>
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<tbody>
<tr>
<td>Promote the development and implementation of technology infrastructure, procedures, policies, plans, and budgets as it relates to educational settings.</td>
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</table>

You will see that your MA courses in ILT address the endorsement requirements. The full endorsement will require two additional courses (6 credits). You may complete these additional courses as part of your MA program, or return to complete these courses at a later time. In other words, the ITT endorsement is an option, but not a
requirement, or your MA program. For more information, see the instruction sheet at the end of the handbook, particularly the weblink to CDE resources.

**Advising Guidelines**

1. When you are ready to begin the master's portion of your program, the first step is to contact your advisors (Jannette Noonan and Brent Wilson). You may want to talk by email, phone, or in person.
2. Please let your advisors know about any constraints on your time and intended graduation date.
3. Fill out the Academic Plan on page 8 of this handbook and submit a copy of it to your Jannette Noonan.
4. Contact your advisors each semester, before you register to let them know how you are progressing.
5. Your advisors are your advocates in this program, so it is better to keep them informed and let them know immediately if you are having trouble or if circumstances arise that jeopardize your being able to complete courses or your program.
6. Keep track of your correspondence. In particular, keep copies of any agreements made about approved electives or changes in your program. This will ensure continuity if a change is made in your assigned advisor.

**Academic Plan (for student use)**

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<tr>
<th>Credits</th>
<th>Course</th>
<th>Planned Term</th>
<th>Actual Term</th>
<th>Grade</th>
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<tbody>
<tr>
<td>1</td>
<td>IPTE 5050 Planning for the First Year of Teaching</td>
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<td></td>
<td><em>Teacher Inquiry (Choose one.)</em></td>
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<td>3</td>
<td>IT 6720 Research in ILT</td>
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<td>3</td>
<td><strong>Collaboration and Change (Choose one)</strong></td>
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<td>3</td>
<td>IPTE 5080 Principles &amp; Practices of Change in Schools</td>
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<td>3</td>
<td>SPED 5300 Collaborating in Schools and Communities</td>
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<td><strong>ILT Core (Complete the classes below)</strong></td>
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<tr>
<td>3</td>
<td>IT 5750 Human Issues Surrounding Learning Technologies</td>
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<tr>
<td>3</td>
<td>IT 5510 Integrating Technology in the Curriculum</td>
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<td>3</td>
<td>IT 5830 Workshop: Assessment and Technology</td>
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<tr>
<td>3</td>
<td>IT 5999 Planning for Technology Environments</td>
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<tr>
<td><strong>IT Elective (complete a 3-credit elective approved by your advisor – IT 5710 required for ITT endorsement)</strong></td>
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<tr>
<td>3</td>
<td>IT 5640 Technology of Student-Centered Learning Environments</td>
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<tr>
<td><strong>Also required for ITT Endorsement (optional for MA)</strong></td>
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<tr>
<td>3</td>
<td>IT 6930 Internship in IT</td>
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Credits Planned __________________________ Anticipated Graduation __________________________
Core Competencies
The core competencies for the Elementary and Secondary Teacher Leadership emphasis in Technology Applications in Education begin with Colorado Department of Education (CDE) Teacher Licensing Standard Seven.

Standard Seven: Knowledge of technology. The teacher is skilled in technology and is knowledgeable about using technology to support instruction and enhance student learning. The teacher has demonstrated the ability to:
1. Apply technology to the delivery of standards-based instruction.
2. Use technology to increase student achievement.
3. Utilize technology to manage and communicate information.
4. Apply technology to data-driven assessments of learning.
5. Instruct students in basic technology skills.
For more detail: http://www.cde.state.co.us/cdeprof/li_perfbasedstandards.htm

Portfolio Guidelines
While you should have already met the requirements for Standard Seven as part of your licensure experience, during the completion of your master’s degree, you are expected to increase the depth of your understanding and abilities related to this standard. The purpose of your master’s portfolio is to demonstrate your depth of mastery of the core competencies.

Your portfolio should include the following items:
1. A letter to your advisor, providing a reflection on your experience in the program and your beginning career.
2. A current resume outlining your professional qualifications, education, and experience.
3. A copy of your teaching certificate and a representative sample of artifacts from those required in your IPTE training.
4. A 2-3 page statement of philosophy concerning the uses of technology for learning. Using APA style, cite at least 5 readings that have influenced your thinking.
5. Three or more projects demonstrating successful integration of technology to support learning and instruction, including a demonstrated impact on student achievement. For each case, provide an executive summary (about 1000 words) that includes the following components:
   ▪ a brief description of a problem of practice and how the technology intervention addresses the problem
   ▪ a rationale for the design of the intervention
   ▪ evidence of impact of the intervention, particularly relating to student learning standards
   ▪ a reflection and self-evaluation relating to your involvement in the project, including a link to ISTE teacher standards
Applying for Graduation

Obtain a graduation application the semester before you plan to graduate. They are available at the Student Services Center or on the Student Services website:

http://www.cudenver.edu/Academics/Colleges/School%20of%20Education/Student%20Services%20Center/pages/default.aspx

2. Give your completed application to Brent Wilson by the end of the first week in the semester in which you plan to graduate. He will review it, sign it, and obtain the department chair signature. If you miss this deadline, notify your advisor immediately!

3. Full instructions for graduation are available on the Student Services website. See also the instructions on the ILT website:

http://thunder1.cudenver.edu/ilt/graduation/graduation_overview.htm

Portfolio

A professional portfolio takes the place of a comprehensive exam. The purpose of the portfolio is to showcase your work to prospective employers and other interested professionals. You may join other ILT students in placing your portfolio online, or you may create a hardcopy binder or CD-ROM of your work. For examples of online portfolios, see:

http://thunder1.cudenver.edu/ilt/graduation/k12_portfolio_examples.htm

Also:

http://www.mrjacobsclass.com/flash_portfolio.html
http://ouray.cudenver.edu/~kmhagan/portfolio_web/home.htm

Due date. Your portfolio should be submitted to your advisor around the 10th week of your final semester. You can find out the exact due date when you pick up or return your graduation application. You may turn in your portfolio at Student Services, 7th Floor Lawrence Street Center.

The review. Your portfolio will be reviewed by the ILT faculty. If they find problems with your portfolio that are remediable, your advisor will contact you and you will be given a week or so to make any changes. You will not be contacted if your portfolio has met the requirements or if, in the judgement of the reviewing faculty, it is so far from acceptable that substantial changes would be needed.

Official notification of results. The results of the review will be officially communicated to you through a letter from the associate dean, six to eight weeks after your portfolio was due. Please make sure that the university has your correct
address. If you have not received your letter by the end of eight weeks, contact your advisor.

**Picking up your portfolio.** Once you have received your letter notifying you of the results of your portfolio review, you may pick up your portfolio. Unless you make other arrangements with your advisor, your portfolio will be kept in the Student Services office. Portfolios not retrieved by the end of the semester following their completion will be discarded.
ITT K-12 Endorsement Instruction Sheet

The instructions below are for alumni of CU's master's program in Curriculum & Instruction, ILT emphasis, who have completed all requirements for the ITT endorsement. If you have not graduated from this program you should submit an application directly to the Colorado Department of Education for review.

1. Beginning July 2006, all teachers seeking ITT endorsement must complete and pass the PLACE exam in instructional technology. See: http://www.cde.state.co.us/cdeprof/liassm.htm

2. ILT alumni who are adding an endorsement in Instructional Technology Teacher (ITT) to an existing license or certificate need to complete the Colorado Department of Education Application for Added Endorsement Based on an Approved Program. Go to:

   http://www.cde.state.co.us/cdeprof/wizard_addendorsment.asp

   Scroll to the very bottom and select the option that reads: "Request an added endorsement based on an approved program." The CDE materials include a checklist with detailed information about fees and requirements. Follow this checklist carefully in assembling your materials. Because of page-number differences between download and hardcopy versions, pay particular attention to the section areas specified in the checklist.

3. When you have completed the application, please make a copy of your application materials for your own records.

4. Submit application materials, official UCD transcript, and fees (see the checklist) to:

   CU-Denver and Health Sciences Center
   ATTN: Jannette Noonan, ITT Review
   School of Education & Human Development Student Services Center
   Campus Box 106, PO Box 173364
   Denver CO 80217-3364

   -OR-

   Drop off the application packet at the Student Services Center, ATTN: Jannette Noonan (Lawrence Street Center 7th floor)

   Upon receipt of your application, CU faculty and staff review your coursework to determine the fit to ITT requirements. Based upon the review, institutional recommendation may be provided to CDE. Or, if any requirements are not met, we provide a letter to you indicating the evidence you need to provide. Please allow 2 weeks for the CU review process. We will submit your paperwork to the Colorado Department of Education, and they will send you the official endorsement in 8 – 10 weeks.

   A word of advice: Plan ahead. Applications must be processed in the order received. In particular, the CDE Educator Licensing unit is unable to check application status and is unable to expedite paperwork. Please keep your address up-to-date with CDE's Licensing Unit by calling 303-866-6628, extension 0.

   If you have any questions please email Jannette.Nooan@cudenver.edu or call 303-315-6351.