

## The CTL Curriculum Model

The CTL framework, goals, and objectives (Section II) and theoretical framework comprised the backbone of the UGA CTL project. Once these crucial pieces were developed and understood by faculty, the next step was to implement them into undergraduate courses. The CTL leadership took inventory of several efforts to develop or adapt courses for the CTL project, discussing at length how these and other efforts could be molded into experiences that would produce newly trained teachers steeped in both the theory and practice of CTL. The result was the CTL curriculum model outlined in Table 9.

**Table 9. The CTL Curriculum Model at the University of Georgia**

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<b>CTL Foundations Courses</b> (required of all teacher education students)	<p>EPSY 2020 Learning and Development in Education (3 cr.)</p> <p>EFND 2030 Social Foundations of Education (3 cr.)</p>
<b>CTL Seminar Courses</b> (elective courses developed in CTL project)	<p>CTL Seminar I: Disciplinary Knowledge – Basic Principles and Ways of Knowing (1 cr.)</p> <p>CTL Seminar II: Workplace and Community Experiences – Connecting Academic Learning to Out-of-Classroom Contexts (1 cr.)</p> <p>CTL Seminar III: Contextual Teaching and Learning in Schools (1 cr.)</p> <p>Introduction to Contextual Teaching &amp; Learning (3 cr.)</p>
<b>Experience in Community/Work Settings</b> (elective courses)	<p>EDMS 5060 Academic Community Learning (3 cr., revised course)</p> <p>Situated Cognition Theory and Implications for Teaching (3 cr., includes field activities, new course)</p> <p>EOCS 5450/7450 Internship in Business and Industry (1-3 cr., revised course)</p>
<b>Curriculum and Methods Courses</b> (required for all teacher education students)	<p>Teacher education program courses in varied academic discipline fields (e.g., math education, science education)</p>

**Student Teaching**  
(required for all teacher  
education students)

Student teaching practicum in teacher education  
program area disciplines (e.g., social science  
education, language education)

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Two basic core classes are required in Georgia of all teacher education students: Foundations of Education and Educational Psychology (focused on learning and motivation). Special sections of these courses were initially offered to students interested in the CTL emphasis. These special sections, although retaining the core contents of educational foundations and educational psychology courses, included supplemental content and activities appropriate for a contextual teaching and learning emphasis. In addition, three one-credit CTL seminars focusing on disciplinary knowledge, workplace and community experiences, and contextual teaching and learning in schools were created. These five classes constituted core classes of CTL, addressed the major principles of the framework, and emphasized applications of these principles in public schools and in teaching. In addition, CTL faculty who participated in CTL, but who did not teach one of the core classes, began to change the content of curriculum and methods of teaching classes within their own departments, as well as activities and projects required and assessment of students. As a result, courses in occupational studies, mathematics education, science education, social science education, and middle grades education, as well as biology, mathematics, and genetics were altered to apply CTL within specific content areas. Through this process, the infusion of CTL among the many courses within the College of Education and the College of Arts and Sciences began.

One of the more interesting and rewarding outcomes of the contextual teaching and learning project was that faculty in the departments – other than those actively involved with CTL – and indeed faculty throughout the College began to infuse CTL into more and more courses within the departments. College-wide seminars were held to inform faculty of the theoretical and practical bases of CTL and how some faculty were emphasizing it throughout their courses and to what effects. CTL was also introduced into conversations about teaching through the *Dean's Forum* at the University level, a highly visible group of college deans and distinguished University faculty focused on the nature and quality of instruction at UGA. Thus, by the end of the second year, CTL faculty recommended shifting from a “cohort” group of about 25 students who were deeply immersed into CTL to an “infusion model” with infusion of CTL principles and practices throughout the teacher education curriculum.

This became known as our “infusion” model, where CTL was infused by many more faculty members, into more courses, and experienced by more students at UGA rather than being limited to a small cohort of students as originally envisioned. In the third year of our project, eight departments with teacher education programs in the College of Education committed to infusing CTL throughout courses and activities in the entire department. The infusion model allowed for the maximum number of students, faculty, and departments to become involved with CTL and addressed issues of continuity and sustainability after the project funding ended.

## UGA Faculty Definitions of CTL

By May 2000, CTL faculty had been working with the UGA framework of CTL by modifying course content, creating relevant exercises and activities for students, attending CTL professional development meetings, and incorporating CTL theories into their research and pedagogical philosophy for a period of 18 months. We were interested in understanding how experienced CTL faculty were operationally defining contextual teaching and learning and what it really meant to them as they worked with it. Fifteen CTL faculty were asked to provide their own operational definition of CTL at a meeting held before the May 2000 business tours. Definitions were analyzed to uncover common components of CTL among faculty participants. Cross-case analysis found that faculty at UGA considered an appropriate CTL definition to have four main components: (a) Meaningful Teaching and Learning, (b) Linking Education and the Working World, (c) Multifaceted Classrooms, and (d) Fostering Connections. These components, of course, necessarily needed to be linked with or grounded in a discipline (i.e., subject matter knowledge and skills). Many faculty responses included more than one component.

### Meaningful Teaching and Learning

Faculty stated that a major component in CTL was to ensure learning was situated in contexts relevant to the learner. Contextual situations show how academic learning is relevant outside of the classroom and that the subject matter being learned is needed and valued in contexts other than the classroom. It is the challenge of the instructor to incorporate activities and experiences that show relevance to students' lives. Two examples of comments from CTL faculty citing meaningful contexts:

*CTL is integrating theory and practice; using "real world" experiences to provide a context for teaching and learning - making learning relevant to the real world - using "hands-on" and applied learning strategies and authentic assessment techniques to evaluate learning.*

*CTL is an approach/perspective to teaching and learning that recognizes and addresses the situated nature of knowledge. A CTL approach aims at making experience relevant and meaningful to students by building knowledge that will have application to life-long learning.*

### Linking Education and the Working World

A primary focus and distinguishing feature of the CTL project at UGA was to develop links between education and business and industry. In essence, what does business and industry expect graduates of the K-12 school to know and be able to do to work successfully in local, national, and global communities? How do the subjects taught in public schools relate to the knowledge and skills needed by employees in businesses and industries? Understanding better the working world and its relationship to classroom

learning helped faculty develop course curriculum, activities, and experiences and provide examples of a subject's utility outside of the classroom. Thus, this link of education and the work world is integral to faculty definitions of CTL. Some example comments:

*Trying to better relate what goes on in the classroom to the "outside" world, the world of working on the theory that doing this will better motivate students. As it applies to teacher ed, the world of work is not just "industry" but also the public school setting.*

*CTL is opportunities for learning about how to link classroom experiences with the "real" working world. In university classes, CTL involved faculty connecting courses with the future work experiences of the learners. By participating in university classes with a CTL orientation, prospective teachers should better understand how to help pupils make sense of what they are learning in the context of the working world.*

### **Multifaceted Classrooms**

Many CTL faculty noted that a contextual teaching and learning environment needs to be varied and dynamic. Traditional teaching methods such as lecturing, pen-and-pencil objective or multiple choice testing, and rote memorization of facts, figures, and definitions provide a static environment for learning. The CTL approach to teaching included offering a variety of activities, experiences, uses of knowledge, and assessment techniques to facilitate student learning. This component demonstrates the necessity of a dynamic classroom environment, able to spark student interest. Example comments from CTL faculty describing the notion of varied classroom:

*CTL is drawing on a diverse array of contexts and activities to enrich and illustrate content.*

*CTL is the process of using a variety of contexts, teaching methods/strategies, and student initiated learning.*

### **Fostering Connections**

As outlined in the CTL framework, the CTL approach to teaching aimed to create connections for students between classroom material and real world situations. The learning theory is that once connections between subject and application are created, students will be able to transfer knowledge from one situation to effective use in another setting. Thus, preservice teachers should be exposed to a wide array of settings, activities, and experiences (multifaceted classrooms) and helped to increase the number of potential connections to enhance information transfer for their students once they begin to teach. Also, increasing the number of potential connections *between* subject topics should enable preservice teachers greater opportunities to construct knowledge in various ways for their potential students. Through relevant experiences, during their university

preparation, preservice teachers should be prepared to try alternative methods to create connections for their students outside of the classroom, such as taking students on business tours or field trips, constructing projects and problems that include real-world activities, bringing the outside world into the classroom through activities such as guest speakers, and other relevant contextual activities and examples. Example comments citing the importance of connections to the CTL model of teaching:

*'Connections' is the operational word for me when I think about CTL. Contextual Teaching and Learning is an approach that links theory and practice and vice versa. In the case of teacher education, contextual teaching and learning is developing instruction for pre-service teacher education courses that will help candidates develop ways of teaching students in grades K-12; approaches that will link theory to real world knowledge and application.*

*CTL is the educational philosophy which believes that student learning can be enhanced by connecting content into the context of students' own lives and possible occupations.*

### **UGA Preservice Teacher Definitions of CTL**

In December 2000, about one year after the start of our project, CTL preservice teachers responded to a survey that provided feedback about their involvement with the CTL program. (A copy of the Student Survey Report was provided to the U.S. Department of Education with the monthly report dated December 30, 2000.) The CTL student survey consisted of a mixture of closed-ended survey questions and open-ended questions. Open-ended questions allowed preservice teachers the opportunity to articulate operational definition of CTL.

The majority of responses from the preservice teachers included components of the CTL framework. Students mentioned concepts stressed by the CTL framework, such as:

- encouraging critical thinking,
- helping students become active learners,
- engaging students in the lesson through hands-on activities, and
- helping students see that learning is relevant to the real world.

Other responses mentioned that students would understand how the subjects taught in school apply to other areas in their daily lives. Making subject material relevant to the real world provides real life context to increase student understanding and motivation.

*CTL means exactly what the title says - contextualizing teaching, making learning real world, something the students see as relevant, using outside resources to help you, prepare the students to learn for life.*

Other responses dealt with the realization that much of learning takes place outside of school. By using information about the community and the business world, a teacher

may help his or her students learn from their environment and make connections between school material and the real world. Through use of situations outside of school to make lessons relevant, students will gain greater understanding of the material and be able to transfer their knowledge to other contexts.

*CTL means to me that learning is not isolated to the classroom. Whether the outside world is brought into the classroom or students explore through imagination, links are made between textbook material and the real world.*

