

The Capstone Project: State of Tennessee

*“In dreams begin responsibilities.”
William Butler Yeats*

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I. Background and Rationale

The High School Transition Policy, adopted in January 2008 by the TN State Board of Education, recommends a “capstone experience” for seniors that may include, but is not limited to, **the following categories**. While student examples may seem to fit into more than one category (e.g., service learning and community service), these seven types of capstone experiences embody specific characteristics that are illustrated in this document.

- 1. Senior Project**
- 2. Virtual Enterprise**
- 3. Internship**
- 4. Externship**
- 5. Work-Based Learning**
- 6. Service Learning (minimum 40 hours)**
- 7. Community Service (minimum 40 hours)**

This manual contains descriptions of the seven categories and examples for each. Since schools must formulate individual approaches to **The Capstone Project** based on district and on-site requirements such as institutional mission and population needs, this manual is intended as a reference for administrators, teachers, counselors, project advisors,

mentors, and students. Issues such as whether the project is completed as part of a class course or outside of school must be dealt with at the local level.

The rationale for **The Capstone Project** is based on findings from many researchers (qtd. in Furko 8).

- Emphasizes learning over teaching
- Engages students as active participants in the learning process
- Centers on students rather than teachers
- Promotes the development of students' higher-order thinking skills
- Focuses on making connections among disciplines (knowledge breadth)
- Connects new knowledge to what students know by having students construct meaning (knowledge depth)
- Engages students in activities through which they can see the value of the information to be learned for their lives outside school
- Engages students in exciting and meaningful experiences that are brain-based
- Allows students to receive peer-critiques and share their personal knowledge, skills, and talents with peers and adults
- Provides multiple opportunities for students to bridge theory with practice and blend the abstract with the concrete through applications of learning in new contexts and situations

II. Introduction

In *Horace's School*, author Ted Sizer summarizes the “pieces of the school reform puzzle” into four essential questions. His first question focuses on the high school graduate (12): “What is it that admirable high school graduates must display to deserve our respect and appreciation as well as their high school diploma?” Sizer believes that students should be able, not only to demonstrate knowledge, but also to apply it.

The Capstone Project, like similar senior service projects, showcases students as “effective communicators, complex thinkers, and productive workers” (Ogdensburg). **The Capstone Project** allows students to learn about themselves by moving an idea or dream toward a topic of interest, specialization, community need, or career choice. Next, students locate the right people (advisors and mentors) to help them and to link them with community resources. Throughout the project, seniors demonstrate their abilities to apply what they have learned during twelve years of study. At the same time, they explore their readiness for college and the workplace.

The Capstone Project has five core components:

- **an approved proposal, containing the research question;**
- **documented research and contact hours with a mentor;**
- **a short written paper, using MLA documentation;**

- **an oral presentation that demonstrates the research and knowledge learned;**
- **a review panel that evaluates the project.**

Students are expected to spend at least 15-40 hours of work on their **Capstone Project**.

The word *capstone* suggests a completion, an ending, an appropriate “topping off.” As such, **The Capstone Project** synthesizes previous learning, questions thoroughly, draws connections among subjects, offers new interactions with ideas and people, results in a showcased product, and submits the student in charge of the project to a review and evaluation by a committee. The work of the student must be documented sufficiently, so that reflection and presentation may take place. It is hoped that, through this project, students will discover more about their individual talents and take pride in demonstrating their learning as they prepare for a successful future. **Capstone** experiences and relationships empower students to develop their leadership skills, sense of character, and self-esteem.

Schools and communities also participate energetically in **The Capstone Project**. Teachers and counselors become advisors, helping students choose their topics and categories. Community members become mentors, contacts for job-shadowing, and partners in service. As schools and community members partner with seniors in learning by doing, these future citizens view society and the issues within a community in new ways. At the completion of **The Capstone Project**, seniors come to view themselves and their schools as resources within the community.

Typical project reflections:

Student Evaluations, Compiled by Ms. Chris Gipson, Davidson Academy, Nashville, TN:

“The most rewarding part of this project was finding a topic that I was very interested in and very eager to learn more about. I think this let me do so well on my paper and presentation. I felt like I worked really hard.”

“This was, dare I say it, fun.”

Pamela Ruiz, Virtual Enterprise (VE) student of Ms. Jeanette Noffsinger, Blackman High School, Murfreesboro, TN:

“We had a whole new idea for a catalog and learned everything about a business. . . . For that one hour that you’re in a VE class, you don’t feel like you’re in school.”

Parent and Student, Columbus East Senior Project, Indiana

Parent: *“Senior Project helped my special needs daughter build confidence to communicate with others.”*

Student: *My Senior Project was a life-changing experience, and now I will call it my lifetime project because I will take what I learned and apply my skills in my future career.”*

III. Information and Questions for Administrators, Counselors, Teachers, Project Advisors, and Mentors

Objective: Student-selected exploration of topic

Adults who assist in the development and completion of a **Capstone Project** have marvelous opportunities to advise, to observe, and to dialogue with high school seniors. A major contribution to a student's project is to help him/her focus on a topic and choose an approach. In her practical guide to producing **The Capstone Project**, Sharon Bender contends that "perhaps the most important thing to remember in developing a project is focus" (26). The objective in the first phase of the project is student selection and exploration of the topic.

Integrating curriculum components such as oral presentations, technical readiness, math, real-world problems, written communication, and research and documentation, **The Capstone Project** combines service learning, discovery, accountability, demonstration of student skills, and general knowledge. Research findings on the impact of service learning projects, such as those available from the *Growing to Greatness* reports of the National Youth Leadership Conference (NYLC), indicate "a positive impact on academic achievement, teacher satisfaction, school climate, school engagement and community's view of youth as resources."

Research Base: Meeting multicultural and global-society demands

Current research results document an even greater benefit to low-income schools. In the 2007 NYLC report, Andrew Furco lists six relevant findings from the New Commission on the Skills of the American Workforce: "K-12 schools need to ensure that students (1) learn how to make connections across disciplines, (2) know how to use what is learned in school to address real-life issues, (3) develop people skills that allow them to work effectively in diverse group settings, (4) build higher-order thinking skills that enhance their problem-solving and analytic abilities, (5) increase their intercultural competencies [e.g., ability to converse in different languages and adapt to alternate cultural norms], and (6) are able to effectively organize and utilize sources of information" (5).

These studies further suggest that service learning addresses key priorities connected to the federal No Child Left Behind education initiative. Guidelines from the Achieve network's Tennessee Diploma Project and the American Diploma Project also recommend this type of learning, which showcases the voices of students and gives them more control over their learning.

Process: From topic to project

The Capstone Project emphasizes active learning. Students explore an interest in-depth, receiving formative feedback from mentors and community leaders along the way. Working collaboratively with adults, students use a variety of skills to learn about themselves. Prior to their junior and senior years, students will begin to think toward the focus of their project by participating in features of their school programs and extracurricular opportunities, such as Career Day, Symposiums, Small Learning Communities, Academic Decathlon, and Project Citizen.

Ideally, leadership for **The Capstone Project** is shared by many people throughout the school. Since **The Capstone Project** is not a pre-packaged curriculum, counselors and teachers play an important role in helping students take responsibility for their own learning. As needed, committees made up of administrators, teachers, counselors, project advisors, students, and community partners assist in the implementation, assessment, and reflection of projects.

School counseling offices should build a database of potential community mentors organized by categories: e.g., profession, sports, hobby, performing arts, volunteer agency, social and/or political issues, scientific research, area of expertise, or other interest. Contact information and times available should be included. Counselors can help to improve continuously **The Capstone Project** at individual schools by encouraging staff, students, and community members to learn from and support each other on a regular basis, to celebrate successes, to improve practices, and to place sample projects on the Internet for others to see.

Teachers may find that students have specific needs when they begin to write the documented paper, using the Modern Language Association (MLA) format. The latest edition of the *MLA Handbook* (Gibaldi) aims to “provide a comprehensive picture of how research papers are created” (xv). An additional, and perhaps larger, concern for contemporary scholars is the selection of appropriate material from the rapidly increasing amount of information available on the Internet. In a chapter titled “Reading the Internet,” Jim Burke puts it this way: “Because the Internet is here to stay, my students need to know how to read what they find there” (19). He gives helpful examples, resources, and questions to ask student researchers who are working with a variety of projects.

Project advisors serve as liaisons between the school and community to build partnerships and implement a learning model that promotes the perception of young people as community assets. Jennifer Piscatelli, with the Education Commission of the States (2006), identifies five characteristics of service learning when it is successfully implemented in a school: (1) vision and leadership, (2) curriculum, (3) professional development, (4) partnership and community, (5) continuous improvement (78). Accordingly, the following questions should be discussed.

Potential Questions for Each School

*What is the infrastructure already in place in this school for **The Capstone Project**?*

Who are the persons in the building who can coordinate the project and maintain continuity from year to year?

*Who will be the senior **Capstone Project** coordinator?*

How will activities of the students be monitored and attendance taken?

Is there a senior coach at the school? Some high schools have one: e.g., Hillwood High School in Nashville. How will that person's job duties fit in with counselors, teachers?

How much time will be devoted to the project by students and adults?

What research and documentation skills have students at our school already acquired?

How will students be scheduled for this work?

*Do teachers need extra planning time or reduced course loads in order to be **Capstone** advisors?*

What community connections are strong for this school: e.g., PENCIL partner(s)?

*What support systems will we link with **The Capstone Project**?*

How will we set up a mentor-match referral data base to link seniors and community members?

*How we will structure the group of judges who will review and grade the final oral presentation component of **The Capstone Project**?*

Will we use a rubric to assess the oral presentation?

Will the project achieve a pass/fail rating or other grade?

*Will an online **Capstone Project** information project guide be maintained for current seniors and offer suggestions for upcoming seniors?*

*How will we celebrate the successful completions of **The Capstone Projects**?*

Information for Mentors

A mentor from the community-at-large serves in one of two capacities: (1) provides an opportunity for one or more seniors to volunteer at a program or business, or (2) meets with the students to offer guidance, make suggestions, give feedback, provide coaching, demonstrate skills, share knowledge, and record progress with the project. Mentors should sign a log or other official form that documents and confirms this interaction during **The Capstone Project**.

Suggested Timelines

Capstone Projects may begin in the junior year and continue through the summer, to end with the first semester of the senior year, or they may begin in the fall semester and be

completed in the spring of the senior year. Seniors achieve the maximum benefit in the college admission process by being able to declare **Capstone** status in December of their senior year. **Completing The Capstone Project allows students to graduate with a Capstone certification.**

Orientation sessions led by counselors should be the starting point for all projects.

8th-grade counselors introduce the opportunity of **The Capstone Project** to students and parents: High School Transition Policy, p. 4 (3-a,b).

9th- 10th grades through English classes: Teachers help students organize a **Capstone** portfolio, which will follow the student through the **Project**. The portfolio inclusions should be established by individual school faculties to provide sufficient guidance so that they will not be too inflexible or concrete. Some schools may initiate a portfolio process in 9th or 10th grade, accommodating the catch-up needs of transfer students in later grades.

Junior year

Some schools begin **The Capstone Project** process in the junior year, continue it over the summer, and end it by the conclusion of the fall semester of the senior year. This approach assures the maximum benefit for seniors as they submit their fall transcript for admission to college.

Senior year

Other schools begin the process with a proposal submitted by the end of **August** and the work to be completed by **April**.

Here is a possible timeline for both approaches.

February or September: Final project proposal and mentor sheets due

March or October/November: Project journal or log completed

May or December: Research completed and submitted

September or January: Rough drafts of paper completed

October or February: Papers due

November or March: Oral presentation(s) made before an audience of faculty, mentor, peers, community leaders

December or April: Reflections and celebrations

IV. Sample Capstone Projects

The Capstone Project allows seniors to develop a skill, pose solutions to real-world problems, or create something after researching. Projects can include job shadowing, apprenticeships, volunteer activities, leadership, and simulations. Technology, hands-on approaches, reflective journals, in-depth research, design, production, and presentation are key components of these projects. The work is completed on the students' own time under the guidance of mentoring specialists. The results are both personal and public, engaging learners in meaningful activities that benefit themselves and others.

Category 1: Senior Project (Self-Development, *Curriculum-Based, Independent Study, Extended Essays)

In a **self-development** project, students concentrate on skill development through creation and construction. For example, students might create a physical product such as a model of the repairs needed for limestone dams in Tennessee; write and produce a play; learn to play a musical instrument; organize a conference for public attendance; or plan and develop a research investigation into a topic of high personal interest.

A **curriculum-based** project focuses on a specific discipline (such as biology, mathematics, arts, social studies, literature) in which to work. This independent study might explore an academic area in a new way, so that the student authors contribute fresh information or methodologies to the existing body of knowledge. For example, a senior might design a website linking the works of authors from different centuries to show they are linked thematically by their expression of ideas. In science, a senior might design a new experiment or series of tests. From the world of architecture, a student might design a multi-function center for the homeless. A student interested in science might explore electron microscopy (the nano-world) or environmentally sound land usage. Global political systems, transportation concerns, social and ethical considerations generated by the internet, human resources, and many more areas offer innumerable topics to explore.

*Curriculum-based projects, such as the Extended Essays completed through the International Baccalaureate (IB) Diploma Programme and the independent research projects through the School for Science and Math at Vanderbilt (SSMV) may be acceptable.

Local example: Hume-Fogg Academic Magnet (HFA) Capstone Course, Nashville, TN **Approved for Grade 12, John Lee, Facilitator 1 credit**
john.lee@mnps.org www.humefogghs.mnps.org/Page15095.aspx

Through the HFA Senior Capstone Course, students explore possible careers and/or areas of study under the careful guidance of a mentor. In addition, a faculty advisor meets regularly with the student, oversees the evaluation, and serves as liaison between the mentor and the school. Early in the fall semester, seniors must submit a 3-5 page research proposal. Once approved, the student works to complete three portfolio sections: (1) foundational pieces, including notes, drafts, preliminary models; (2) thesis paper, which has received formative feedback from both the mentor and advisor; (3) presentation pieces/visual aids to help communicate the learning to the project committee. The culminating activity is an oral presentation to an open audience, followed by a 10-minute formal presentation to the project committee and extended audience.

Grades: Online evaluations from mentor are due three school days before the end of each grading period.

National example: Oxford High School (OHS) Senior Capstone Project, Oxford, MS **Required for Seniors**
<http://www.oxford.k12.ms.us/schools/ohs/home/seniorinfo.htm>

The OHS Senior Capstone Project requires almost the full final year to complete, requiring each senior “to demonstrate twelve years of educational experience” in a four-part mentored process: research paper, a physical product related to the research, a reflective paper, and an eight- to ten-minute oral presentation. A committee accepts or rejects the written project proposal. Focus areas for the projects include service-oriented, self-development, career, and curriculum-based. The culminating presentation takes place in front of an audience made up of peers, faculty, community leaders, and an evaluation panel. Following the presentation, students must submit to a five-minute period of questions from the panel. Presentations, projects, and portfolios are adjudicated according to established rubrics.

Grades: Each component must be completed and passed.
A time/learning log must be kept by students and submitted.

Category 2: Virtual Enterprise

Approved for grades 11-12
Recommended credits, 1-2

The next four categories of **The Capstone Project (Virtual Enterprise, Internship, Externship, and Work-Based Learning)** have one commonality: they align with the approved standards for the Career and Technical Program, as outlined in the 2008 TN High School Transition Policy, Rule. These projects may link to courses offered in Agricultural Education, Health Sciences Education, Family and Consumer Sciences, Marketing, Business Technology, Technology Engineering, Contextual Academics, or Trade and Industrial Education. Such projects help students investigate professions that graduates might pursue after completion of their formal education. With the help of a mentor currently employed in that field, high school seniors research the preparation, education, and eligibility requirements that are needed for specific professions. They explore employment benefits, hiring possibilities, salaries, promotions, and other monetary and career concerns.

Virtual Enterprise

The following information about Virtual Enterprises International is provided on the opening page of the booklet titled *TN Virtual Enterprises, International: Booklet Plan Competition, January 10-11, 2008, Murfreesboro, TN*.

Virtual Enterprises International is a trademark of the New York City Department of Education. This program is based on the European concept of practice firms. At this time, the state of Tennessee has 45 programs devoted to this endeavor.

A Virtual Enterprise (VE) is a simulated (virtual) business that is set up and run by students with the guidance of a teacher/facilitator and a business partner. This program allows students to experience, in a simulated business environment, all facets of being an employee in a firm. The Virtual Enterprise involves students in every aspect of a business, including human resources, accounting, product development, production, distribution, marketing, and sales.

The difference between a Virtual Enterprise and an actual business is that no goods are produced nor actual currency exchanged. The transfer of virtual funds is made electronically through a web-based simulated banking system, provided by the New York City Department of Education that links all U.S. firms with each other and with the rest of the world.

Local example: Blackman High School, Murfreesboro, TN
TN Virtual Enterprises International Central Office, Cindy Boyd, Director
boydc@rcs.k12.tn.us <http://www.virtualenterprisetn.org>

In 2002-03, Blackman High School in Rutherford County established the first Virtual Enterprises program in Tennessee. In 2005, Blackman High School in partnership with the TN Department of Education established TN Virtual Enterprises (VE) International Central Office, under the guidance of VE Central Offices in New York City. Across the state, 39 schools include VE in their curriculum with 45 firms participating. Corporate business partners provide direct assistance to VE students, schedule visits to their corporations, help students design trade fair booths, and provide scholarships.

The goal of TN VE is to combine motivation and essential expert skills necessary to manage career advancement in business and communication. Through this program, students gain a realistic view of the business world and often refine their career searches.

National example: Deloitte & Touche at Norman Thomas High School
Manhattan, NY
Byrnes, Nanette. "Get 'Em While They're Young." BusinessWeek. 22 May 2006. 11 Oct. 2008
<http://www.businessweek.com/magazine/content/06_21/b3985095.htm>.

Seven professionals from Deloitte & Touche, LLP spend Friday mornings from 7:25-9:25 working as mentors in a Virtual Enterprise program. These mentors help students run virtual businesses, teach them work ethics, and emphasize the skills of the working world. In 2006, nursing, engineering, and auditing were considered "hot spots in the economy where demand heavily outstrips supply." Therefore, companies ranging from Lockheed Martin Corp to hospitals are working with students such as Rayon Piper, a Jamaican immigrant who now, at 22, works as an accountant as a result of his internship. Businesses benefit as high school students "inject creative thinking into an enterprise." Companies also teach etiquette for business lunches and how to choose appropriate work attire.

Programs in New York, Delaware, Texas, California, and Philadelphia offer other examples.

Category 3: Internship (On-Site, Clinical Experiences, Apprenticeships)

The official TN State Department description of internships follows: “A student internship provides a student the opportunity to study a program directly related to his or her career interest and to participate in a workplace setting by performing duties related to the occupation being studied. Internships, as a component of a related class, are intended to be short-term and are designed to meet the needs of students in both the university and technical path. Long-term-for-credit experience must be pursued through cooperative education. The major purposes of the internship learning experience are that the intern receive broad instruction in workplace expectations; confirm, narrow, or expand choices of career interest; develop an understanding of the connection between school-based theory and content and work-based application; and increase awareness of the workplace, career opportunities, and community resources” (Nicole Cobb).

A student intern grows personally from a challenging setting, explores interests and talents, volunteers for responsibilities that support community organizations, and/or gains greater acquaintance with job/career potential through apprenticeship arrangements. While the internship can take many forms, the project should represent a significant choice for the student with meaningful personal and group outcomes. The project must be guided by a mentor who is knowledgeable in the area of interest and willing to serve in this capacity.

Local example #1: School for Science and Math at Vanderbilt (SSMV)
Glenn McCombs, Director <http://theschool.vanderbilt.edu/about.php>

Students who are seniors at various Metro Nashville Public Schools (MNPS) and who are also SSMV students spend the fall and spring semesters conducting research and science outreach with Vanderbilt University. The SSMV website gives these details about student work: “As rising seniors, students are placed in research laboratories where they complete independent projects. Continuing through their academic senior year, students receive intensive preparation and submit for national science competitions.”

Current research projects done under the tutelage of Vanderbilt professors include the following: researching Neurotrophin receptor mediated apoptosis; researching peptides that inhibit HIV; researching the effects of two specific drugs on Colo-Rectal cancer; researching sewage pollution in recreational waters; researching cardiac tissues; and researching the role of certain drugs in the ovarian response to diet.

Local Example #2: Center for Latin American Studies, Vanderbilt (CLAS) has agreed to work toward internships and externships for high school students in Nashville. CLAS is involved with teaching, research, and outreach in Latin American and Caribbean studies. Contact Dr. Fischer beginning with the 2009-2010 school year.

Edward F. Fischer, Director

<http://www.vanderbilt.edu/clas/>

National examples: Senior Internship Program at Rae Kushner Yeshiva High School
Rabbi Kirsch, Director
Livingston, NJ
www.rkyhs.org/specialprograms/seniorinternship.shtml

The Senior Internship Program at Rae Kushner Yeshiva High School in Livingston, New Jersey, spans up to four weeks during the senior year, and must include 75 hours of active participation in a project. The project may be academic, artistic, or skill oriented. These are the requirements of the Senior Internship as listed on the website.

1. The educational value of the Senior Internship must be at least equal to the learning the senior would receive by remaining in classes.
2. A successful senior project is a graduation requirement.
3. Project completion becomes part of the permanent record.
4. A mentor/sponsor must guide the work.
5. A faculty advisor evaluates the group presentation and journal.

Four main categories of internship settings are listed: See the website for examples of each: (1) creative expression, (2) volunteer work, (3) apprenticeship, (4) educational.

Category 4: Externship (Short duration, spring break, winter break, job shadowing)

Guidelines or definitions for externships must be established locally by schools since they are not covered in the Work-based Learning training or handbooks. These opportunities allow students to move out of the traditional classroom setting for short periods of time and partner with professionals in various fields of interest. Externships may involve job shadowing, which allows students to spend between one day and several weeks observing professionals on the jobs in order to consider potential career choices. Sites such as www.jobshadow.org may lead students to local externship opportunities.

Local example #1: Harpeth Hall Winterim, 3801 Hobbs Road, Nashville, TN
Karen Roark, Winterim Director **Required for all Students, 9-12**
<http://www.harpethhall.org/podium/default.aspx?t=23605>

Now in its 36th year, this signature program at Harpeth Hall High School takes place during the month of January each year. Students consider possibilities, conference with the Director, and complete paperwork deadlines regarding their choices. Students have four options from which to choose: (1) on-campus courses, (2) a work/study internship that usually takes place in Nashville, New York, or Washington, D.C., (3) an academic travel experience with a curricular emphasis, (4) an independent study project of the student's own design in an area of particular interest.

In earlier years, the course grade was pass/fail. Now, the students are assigned grades for the quality of their journals, evaluations by on-site sponsors, and attendance.

Local example #2: Junior Achievement, Music Row Job Shadowing Opportunity
77 Students October 24, 2007

Junior Achievement (JA) offered 77 Nashville-area high school students a behind-the-scenes look at the music industry in 2007. "As part of [JA Worldwide](http://www.jaworldwide.com)'s Music Row Job Shadow, the participating eighth- through 12th-graders who previously applied for positions with some of Nashville's most prestigious music industry companies spent the day shadowing their Music Row hosts and engaging in workplace activities. The JA Worldwide Music Row Job Shadow lasted one day and wrapped up with student performances and an expert panel taking questions from participants." JA Worldwide is the world's largest organization dedicated to educating young people about business, economics and entrepreneurship.
<http://nashville.bizjournals.com/nashville/stories/2007/10/22/daily14.html>

National example: Just The Beginning Foundation (JTBF)

Chicago

<http://www.jtbf.org/index.php?submenu=Opportunities&src=gendocs&link=JTBFHighSchoolSeniorExternProgram&category=HSOpportunities&PHPSESSID=3dcb78a9bb2e52ce147eb2033cbf66d7>

This is the advertised mission of JTBF: “JTBF is a multiracial, nonprofit organization comprised of lawyers, judges, and other citizens. It is dedicated to developing and nurturing interest in the law among young persons from various ethnic backgrounds underrepresented in the legal profession and supporting their continued advancement. JTBF’s long-term goal is to increase racial diversity in the legal profession and on the bench.”

The JTBF website gives additional information about their program: “Consistent with its pipeline approach to bringing more students of color to the legal profession, JTBF offers a number of opportunities for students to learn about the law outside the traditional classroom setting. Both the JTBF High School Senior Extern Program and the JTBF Summer Legal Institute provide unique opportunities for high school students to gain invaluable work experience and insight into the practice of law and the legal system. The JTBF High School Senior Extern Program is open to high-school seniors during the regular academic year. Student externs are placed in the chambers of Bankruptcy Judges, Magistrate Judges, District Court Judges and Appellate Court Judges in Chicago, as well as with federal government agencies. Externs work approximately eight hours per week, assisting the judges, lawyers, and their staff. Externs also meet regularly for activities such as a legal writing course, field trips, and guest speakers.”

Category 5: Work-Based Learning (Exploration of career options at the worksite) Approved for grades 11-12
<http://www.state.tn.us/education/cte/wb>

Students must be enrolled in the related class concurrently (at the same time) with the Work-Based Learning (WBL) experience. The internship experience may not substitute for the required five hours of instruction per week. The TN Department of Education website posts this description of WBL: “Work-based learning is not a class. It is a method of instruction that enhances a related class in which a student is enrolled. Credit earned in work-based learning is through the regular class in which the student is enrolled at the same time as the WBL experience. The credit is recorded as an additional credit in that class. The WBL experience does not replace the regular class instruction time.”

Local example: Alignment Nashville, The Mayor’s Office, Metropolitan Courthouse, Nashville, TN 37201

<http://www.alignmentnashville.org/committees/9-12-grade-committee>

Alignment Nashville provides academic intervention to improve academic achievement and college entrance exam results, works to prevent high-risk behaviors, arranges internships and job preparation for the world of work, provides opportunities for exposure to colleges and community service, and ensures transportation for before/after school and Saturday activities. Students take a full-semester leadership course taught by a Metro teacher in conjunction with community organizations. Students then lead leadership projects at their schools. The Alignment works through the Nashville Big Picture High School, College Access Task Committee, and a Developing Community Leaders Task Committee. For additional details, see their site.

National example: Jump Start: Work-Based Learning Policy Maker Page
National Collaborative on Workforce and Disability (NCWD)

http://www.ncwd-youth.info/resources_&Publications/jump_Starts/work_Based_Learning/policy.shtml

This national center offers help schools develop a quality work-based infrastructure for youth in conjunction with community resources and local workforce development boards. Questions on the site deal with resources, examples, and special consideration given to youth with disabilities. A research base, resources, and references are other useful links on the site.

Category 6: Service Learning (Service oriented projects which meet community needs)

Service Learning and Community Service **Capstone Projects** involve a significant amount of time (15-40 hours or more) outside school hours during which the senior actively participates in meeting the needs of the community. Coordinated in collaboration with the school and community, these projects blend service and learning goals to extend student learning beyond the classroom. Four basic elements of service learning are identifying a problem and project; supervised service with academic integrity; structured reflection which clarifies values; and celebration (Service-Learning 101, 7). Community-based organizations (CBOs) may partner in planning, may take the lead in designing and implementing service-learning activities, may serve as facilitator and provider of technical assistance and curriculum developer or may simply serve as worksites where student provide service.

Local example: Governor's Study Partner Program (GSPP)

Michael Pocchiari , Director, 615-532-6268 study.partner@state.tn.us

<http://www.k-12.state.tn.us/rptcrd98/rcov980.htm>

http://tennessee.gov/education/ci/minority/doc/minority_tchr_rpt_2006.pdf

The Department of Education's November 2006 Report to the State Board of Education on the Status of Minority Classroom Teachers in Tennessee contains this information about the GSPP (8): "Established in 1987, the Governor's Study Partner Program matches the skills of academically successful students with those who are having difficulty in school. This opportunity gives students a chance to strengthen study skills as well as building more positive attitudes toward learning and enhancing self-esteem. Tutoring is now available for grades 1-12. Training manuals are given to each tutor during training sessions conducted by the State Department of Education. Bell South serves as Corporate Sponsor of the program and prints all the manuals, allowing the program to be free to all participating schools. A study skills component has also been added to the program has aided in the goal of independent learning. This program also acts as an introduction to the teaching profession" (8).

A GSPP Study Partner Guide and Tutor Manual, published by Middle TN State University, is available from the State Department of Education. The manual contains information for trainers, tips for tutors, and strategies for coaching and taking tests.

National example #1: Center for Civic Education

<http://www.civiced.org>

Janis Kyser, State Director

jkyser@clevelandschools.org

The *We the People: Project Citizen* program helps prepare students to be effective citizens, workers, and leaders. Students select a public policy issue relevant to their community, complete research on the issue, create alternative policies for dealing with the issue, select and develop a “Class Policy” that can be presented to a governmental agency, and create an action plan for implementation.

For the *We the People: Project Citizen State and National Showcases*, students prepare four-panel portfolios and documentation binders chronicling the steps they took to identify and research a problem in their community, their evaluation of alternative policies, their proposed public policy, and an action plan formulated to have their policy enacted.

National examples #2 - from *Growing to greatness: CBO Profiles*. Other notable projects to investigate: Common Cents New York; Communities in Schools; Do Something; Philadelphia Youth Network.

<http://www.nylc.org/pages-programs-initiatives->

[Growing to Greatness The State of Service Learning Project?oid=3698](http://www.nylc.org/pages-programs-initiatives-Growing-to-Greatness-The-State-of-Service-Learning-Project?oid=3698)

Constitutional Rights Foundation

www.crf-usa.org

CRF is dedicated to educating students about civic participation, citizenship, government, politics and the law. Its City Youth interactive lessons support team teaching, cooperative learning, portfolio assessment, and service-learning projects. Its Civic Engagement Training and Technical Assistance (CETTA), Service-Learning NETWORK, Youth for Justice and Youth Leadership for Action (YLFA) programs have helped over one million students and 26,000 teachers. Youth for Justice conducts research on its programs, including effectiveness and sequential studies with **Metro Nashville Public Schools**.

Lions-Quest

www.lions-quest.org

Lions-Quest programs provide sequential, grade-specific classroom materials which help students discover the roles they can play in their communities while reinforcing positive social behavior and developing citizenship. The guides ensure that programs are collaborations between home, school, and community; are values-based; and are community-based. Lions-Quest Skills for Growing is a K-5 program, while Lions-Quest Skill for Adolescence is a life skills curriculum

for grades 6-8. Lions-Quest Skills for Action is a curriculum for grades 9-12 that builds essential life and citizenship skills through service learning experiences.

National Urban League

www.nul.org

As the oldest community-based movement empowering African Americans to enter the economic and social mainstream, NUL has been involved in service-learning and youth development since the 1980s. The National Urban League Incentive to Excel and Succeed (NULITES) program chapters include a service component, career and leadership emphasis, and its “own backyard” approach to issues which need addressing. For example, a **NULITES chapter in Memphis, Tennessee**, formed, in part, because youths wanted to renovate a park in their community.

PeaceJam

www.peacejam.org

PeaceJam leverages the power of peacemakers’ stories to transform young people and their communities. Nobel laureates now work with young people internationally on peace-oriented service-learning projects. PeaceJam’s program consists of three primary components: a standards-based curriculum for K-12; service-learning projects that students design and implement in their communities; and an annual conference where students spend a weekend with a Nobel Peace Laureate. As part of the curriculum, students plan and implement peace-oriented service-learning projects and then present their projects to the Nobel laureates at the conference. Thirteen Nobel Peace Prize winners work with PeaceJam to inspire youths in 21 state and South Africa, Costa Rica, México, India, Argentina, Guatemala and Kenya.

Youth as Resources

www.yar.org

The National Crime Prevention Council developed the concept of Youth as Resources (YAR). CYAR is a national umbrella organization which provides resources and support to local YAR sites which implement service learning programs at the local level through partnerships between schools and community-based organizations. CYAR engages young people as resources and advocates three core principles: youth-adult partnerships in governance, youth-led service, and youths as grant makers.

Category 7: Community Service (minimum of 40 hours)

Community service “sets the stage for more intentional integration of service into the curriculum through service-learning” (Kielsmeir 6). In this type of **Capstone Project**, seniors work with the community to develop a new approach to established programs, services or events. These projects become assessments of the ability of students to experience the real world as they enhance their learning, to develop civic values, to enrich their citizenship skills, to explore careers in the community service field, as well as to cultivate volunteerism and community service.

By January 2004, sixty-nine percent of K-12 public schools engaged students in community service. Why? Community service develops relationship with others in students some of whom may have never left their home area. It increases the complexity of social relationships, promotes cohesion among groups, and trains future citizens. Just as a pilot uses a flight simulator to train, community service uses civic resources to share knowledge and skills with students who in turn become resources and partners.

There are **three types of service**. **Direct service** involves students directly with community members or those being served. Direct service includes visits to the elderly, tutoring, in programs such the Governor’s Study Partner Program mentoring, and other projects which focus on the needs of others. **Indirect service** involves students on an issue from a “behind-the-scenes” approach. Ideas for indirect service include drives, collections, fund-raisers, construction cleanups, and other projects involving team work, problem solving and stated learning objectives. **Advocacy service** focuses students on the alleviation of a community issue and includes lobbying, performing, finding causes and taking those finding to government leaders requesting solutions. (Service-Learning 101 12)

Local example: Father Ryan High School Nancy Langdon, Registrar
www.fatherryan.org

This course is a ½ credit elective for seniors at this private Catholic High School. Through their service learning, students put Christian values into action by working in nursing homes, daycare centers, and schools for the physically and/or emotionally challenged. Examples of schools in which Father Ryan students work are these Metro Nashville Public Schools: Crieve Hall Elementary School (two Life Skills classes), Paragon Mills Elementary (kindergarten and first grade classes), Norman Binkley Elementary (autistic students). Students keep journals, make presentations, and attend a weekly seminar to discuss and reflect upon their experiences.

National example: Lexington (MA) High School Senate
<http://lhs.lexingtonma.org/senate/comserv.html>

Students in grades 9-12 at Lexington High School in MA must perform 40 hours of community service during their high school careers. Transfer students must accumulate at least 10 hours of service for each year of attendance at Lexington High. The website lists the following guidelines to define *community service*.

- It must be performed without compensation to the student. Examples: Court-ordered community service will not be accepted. Paid work will not be accepted. Work receiving academic credit will not be accepted.
- It must benefit at least one person other than the student or the student's relative(s).
- It must not be associated with religious ceremonies, services, education, proselytizing, or fund-raising. A non-religious activity performed through a religious community, but which does not benefit the religious community directly, may still be considered.
- Political campaigning or work benefiting political organizations or causes directly cannot be accepted.

The site also contains general links such as the following to help students find service opportunities:

<<http://www.volunteermatch.org/>>

<<http://servenet.org/>>

<<http://www.idealst.org/if/idealst/en/AdvancedSearch/Org/default>>

Other examples of organizations through which community service activities may be arranged:

Working with hospitals and medical centers, homeless advocacies, Scouting, YMCAs, local and national charities, assisted living homes, Boys & Girls Clubs, neighborhood centers, Board of Education, Tennessee State Legislature, arts agencies, Veterans organizations or hospitals, Chamber of Commerce, Civic Clubs such as Elks, Kiwanis, Rotary, Knights of Columbus, The Nature Conservancy, Habitat for Humanity, Magdalene House or any community service organization that is pre-approved by the school, the advising teacher and the mentor involved.

V. Information for seniors

As seniors who complete a successful **Capstone Project**, you can expect these results:

- Receive positive feedback from persons in the community
- Get a status report on your inner self
- Tie your interests to real-world relevance
- Use an interdisciplinary approach to learning (which means you can showcase your best style of learning as well as your strengths and talents)
- Gain a sense of compassion for others
- Feel true satisfaction for a job well done

Note: For those of you entering college, you may receive preferential selection status as a **Capstone** completer. For those of you entering the work force, you make connections during the project and gain insights about the community that may have far-reaching benefits to your future.

Core Components to the Capstone Project

Each of the seven possible **Capstone** projects must consist of five core components:

- **an approved proposal, containing the research question;**
- **documented research and contact hours with a mentor;**
- **a short written paper, using MLA documentation;**
- **an oral presentation that demonstrates the research and knowledge learned;**
- **a review panel that evaluates the project.**

Step 1: Select a focus.

Ask yourself the following questions:

What resources are available for me to use to learn about this idea?

How many types of resources can I use?

How is this project a new aspect of learning about this topic?

What previous experience or exposure do I have regarding this topic?

What will the project cost me in time and in money?

How many hours do I think this project will take?

How will this project impact me, my family, and my community?

Step 2. Write and submit a proposal.

See sample forms section at end of this pamphlet, or ask your advisor.

Step 3. Organize materials: e.g., portfolios or binders.

Ask your advisor whether you need to develop a portfolio since this requirement will vary by school.

A portfolio might contain your resume, including a photo of yourself, a time sheet or learning log, and other forms or requirements set by your school.

*Be sure to keep a separate binder for your **Capstone Project**.*

Step 4. Keep a learning log, time sheet, or journal.

This requirement will vary by school. Check with your advisor.

Step 5. Choose a mentor according to guidelines.

You can form a partnership built on existing partnerships, or you can develop new ones that are of mutual interest to you and the partner.

See forms section or ask your advisor.

Step 6. Write a short research paper (MLA).

Your research paper will contain a minimum of 1200-1500 words (approximately 5 pages), using MLA documentation and format. Check with your advisor for the number of sources required, as well as the due date.

Step 7. Make an oral presentation.

*Your presentation will be a short (10-minute) presentation of your **Capstone Project** to a group of staff, peers, and community members.*

You may use both audio and visual components (e.g., photographs, videotapes, electronic records) to present your project as well as a physical component, such as a model or mockup. See advisor for guidelines.

Expect a short question-and-answer period at the end of your presentation.

Step 8. Evaluate and assess.

Check with your advisor. See self-evaluation form in forms section.

Step 9. Reflect.

Reflections could be presented in a form your school uses: e.g., a journal, a portfolio, or a short paper. Check with your advisor.

Step 10. Celebrate!

Encourage your school to initiate a final celebration.

Schools across the country hold Expos. For example, here's a link to the Cherokee County (GA) School district and what they do:

<<http://capstoneexpo.wordpress.com/>>.

VI. Sample forms

A. The proposal

The Capstone Project

Proposal

Student Name _____
Project Advisor _____ Date _____

Type of project. Circle one.

Senior Project
Virtual Enterprise
Internship
Externship
Work-Based learning
Service Learning
Community Service

My project idea focuses on an area where I may sustain my interest and do at least fifteen hours of documented research. It offers an aspect of new learning and growth for me. I understand that my project must have audio/visual evidence and that I will give a presentation of my work in front of a panel of invited individuals. I will locate a mentor to guide me through the creation of this project.

1. My project title:

2. My written component of the **Capstone Project** will research this topic:

3. My goal for this project:

4. My strategy to accomplish the project:

5. For my oral presentation, I plan to use the following materials:

Student signature _____ Date _____

Parent signature _____ Date _____

Project approved or rejected (Circle one)

Reason rejected _____

Project advisor's signature _____

Date _____

Mentor's signature _____

Date _____

B. Learning, shadowing, or service log

TIME SHEET					NAME:	
DATE	LOCATION	START TIME	ACTIVITIES/ TASKS	COMMENTS	END TIME	MENTOR INITIALS

C. Mentor forms

Mentor Guidelines

(courtesy of Oxford High School, MS)

Each student should select a mentor who can advise and assist with the selection of a feasible project and will help in developing the project. A mentor may also be one of the staff.

A mentor should be:

- A person who is knowledgeable/experienced in your particular field
- A person who is willing to assist you in the **Capstone Project** process
- A person you can have regular contact with for a short period of time
- A person who will give you constructive feedback
- An adult, no longer in high school, who will encourage you

One goal of the **Capstone Project** is to encourage the student to meet and interact with new people. The student is also encouraged to stretch and grow while working on the project. Part of that growth comes from interacting and working with another adult in the community. Therefore, a mentor cannot be a member of your family. Family members are, however, encouraged to assist the student in the following ways:

- Verify project completion
- Encourage students to meet deadlines and to do their best
- Help students organize their work
- Supervise the “stretch” of the **Capstone Project** by giving support for new experiences

Mentor Information

Student Name _____ Project advisor _____

Date _____

Mentor’s Name _____ Phone _____

Mentor’s Address _____ Email _____

Qualifications _____

Briefly describe how you discovered this mentor and how you think he/she can best help you with your senior capstone project:

MENTOR AGREEMENT

I understand and accept the responsibilities of mentoring this student during his/her work on the Senior Capstone Project. I will establish appropriate shadowing time and sign the log to verify such time.

Mentor Signature

Date

D. Capstone Project Self-Evaluation Form

Capstone Project Self-Evaluation Form

Name _____

Project Advisor _____ Date _____

1. Give the title of your project and describe it.

2. Describe the steps, time and cost (and materials if any) involved in your project.
 - A. Steps
 - B. Time
 - C. Cost

3. List the name of your mentor and anyone else involved in your project.

4. How were community resources utilized in this project?

5. In what way was your project a new or creative approach to the problem involved?

6. Does your **Capstone Project** offer a chance for future seniors to follow up or take action? If so, how?

7. In a paragraph or two, describe what you learned from this project.

8. Did this **Capstone Project** change your values or interests? If so, how?

9. What was the greatest difficulty you faced with this project?

10. Is your project worthy of a pass or fail grade? Declare your grade and then justify it in a few sentences.

VII. Glossary

Capstone Project: A student-selected exploration of an interest or topic which culminates in the five core components: an approved proposal, documented research, a written paper, an oral presentation, and a project review.

Capstone Project Certification: A designation from the State Department of Education to be added to the diploma and transcript of each **Capstone Project** completer.

Community Service: “Community service activities that are non-curriculum-based and are recognized by and/or arranged through the school,” (NYLC “Growing to Greatness”)

Documented Research: Notes taken by the student, work logs, mentor logs, portfolios, photos, records of work on models, letters or emails from mentors or community members, recorded interviews, or other hard copy evidence of research.

Extended Essay: A 4,000-word written product required for International Baccalaureate (IB) Diploma candidates. Topics must be selected from a list of approved Diploma Programme subjects. Under the supervision of a faculty mentor, the student conducts extensive research and produces the formal written paper, which is externally assessed.

Externship: An experience outside the classroom, of relatively brief duration, that extends student skill development, service opportunities, and connections to the larger community.

Governor’s Study Partner Program (GSPP): A positive tutoring partnership to improve scores, increase confidence, and offer support. The GSPP provides standards-based activities for use by tutors.

Internship: A study program directly related to a student’s career interest, including performance of duties related to the occupation being studied.

Mentors: Adults other than family members who work with students during the research, project or product phase of **The Capstone Project**.

Oral Presentation: A ten-minute presentation of the completed **Capstone Project** followed by questions from a panel of judges.

Project Advisor: A staff member at the student’s school who helps the student choose a topic, locate a mentor, and evaluate the final product.

Proposal: A written plan for **The Capstone Project**, signed by the student, parent(s), and mentor. The proposal states the title, written research component, goal, strategy, and materials needed for the presentation.

Review panel: A group of school/community-based individuals who assess the project for compliance with set standards applicable to the category of the selected project. These standards may vary from school to school.

Senior Project: A substantial amount of work completed by the student about a topic of interest. The project is mentored, documented, and presented to an evaluation committee.

Service Learning: Community service, integrating classroom instruction with service activities.

Virtual Enterprise: A **Capstone** experience in which local businesses help students establish and operate virtual businesses.

Work-Based Learning: A closely supervised learning experience, combining both classroom instruction and employment outside the classroom.

Written Paper: A short research paper using MLA documentation and format. Acceptable minimum is 1200-1500 words.

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