



***ECHS - Lee
2010 - 2011**

***Summary of Purpose and Foundation**

“To those searching for truth - not the truth of dogma and darkness but the truth brought by reason, search, examination, and inquiry - discipline is required. For faith, as well intentioned as it may be, must be built on facts, not fiction.” - Thomas Edison

**In July of 2014, Edison State College changed its operating name to Florida SouthWestern State College and the high school's name changed in tandem. This document pre-dates the name change and is presented in its original form.*



Project Goals

In partnership with Edison State College and the Lee County Public Schools, Edison Collegiate High School - Lee desires to provide the citizens of Lee County with a unique and unparalleled educational opportunity. By opening a collegiate high school in direct partnership with Edison State College, students will be able to simultaneously earn a traditional high school diploma and an Associate in Arts degree by taking dual enrollment classes during their junior and senior years. This incredible opportunity will be available to students at no cost and will provide them with an experience rooted in the best available research and educational philosophy. All school operations are governed by the adopted by-laws, policies, and procedures of the Board of Trustees of Edison State College. Because of the small nature of the school and the close association with Edison State College, students will be able to be actively engaged in the educational process. Primary focus will be on Science, Technology, Engineering, and Math (STEM) delivered through experiential and interdisciplinary teaching and learning. Torp and Sage (1998) define problem-based learning (PBL) as, "focused experiential learning (minds-on, hands-on) organized around the investigation and resolution of messy, real-world problems.....it is a curriculum organizer and instructional strategy, essentially two complementary processes" (p. 14). This rich and student centered problem solving atmosphere will allow students the opportunity to personally construct knowledge in response to the experiences mapped out by their highly qualified and specifically trained teachers. Edison State College's support for this incredible opportunity is evident in Edison's *Destination 2020* strategic plan and once open, the results of the experience will speak for themselves. In short, the mission of ECHS - Lee is to provide students with an accelerated opportunity to participate in the joys and benefits of a highly relevant and applicable educational experience.

As required by the Southern Association of Colleges and Schools (SACS) accreditation standards, Edison State College has established general education learning outcomes that provide a common ground for the students' learning experiences. Course syllabi will identify these outcomes and how they will be addressed in each classroom. Similar learning competencies will be addressed in the general principles of the Collegiate High School, thereby reinforcing the seamless transition between the pre-collegiate program and the collegiate program and the partnership between the Collegiate High School and Edison State College. Core skills required for success and imbedded in all aspects of the ECHS - Lee experience are:

- **Communication:** To communicate effectively using standard English;
- **Critical Thinking:** To demonstrate skills necessary for analysis, synthesis, and evaluation;
- **Technology/Information Management:** To demonstrate the skills and use the technology necessary to collect, verify, document, and organize information from a variety of sources;
- **Global Socio-cultural Responsibility:** To identify, describe, and apply responsibilities, core civic beliefs, and values present in a diverse society;
- **Scientific and Quantitative Reasoning:** To identify and apply mathematical and scientific principles and methods.

Educational Philosophy

The Collegiate High School will “reflect and reinforce the values, priorities, and requirements of the creative age”; it will be a place “where human creativity is cultivated and can flourish” (Florida, 2005, p. 254). While traditional educational thinking treats the secondary student as a passive recipient of knowledge, a more current view of learning emphasizes the need for learners to engage in authentic culturally relevant tasks using relevant cultural tools (Martin, 1995). ECHS - Lee will strive to develop exemplary classrooms where learning, ability, product production, and intelligence are as much a part of the situation as they were of the individual (Barab & Plucker, 2002). Furthermore the constructivist based idea of inquiry based learning will require that student be presented with ill-defined, real-world problems, instead of well-defined, idealistic activities that do not foster independent and critical thinking. These situational learning opportunities can and should be available across the curriculum and presented in a coordinated fashion (Duschl and Grandy 2005). The Collegiate High School will engage its students, from the academically gifted and talented, to those whose academic record may not be reflective of their true potential, in active and interactive academic experiences. Through individualized attention high school faculty members will work with students and their parents to identify strengths and weaknesses and to craft an individualized educational plan that will assist students in achieving their academic and career goals.

The Collegiate High School will adhere to three essential principles of learning:

- Student effort is a more important determinant of achievement than natural ability;
- Clear, yet high expectations for all students;
- Curriculum that combines deep understanding of subject matter with application to complex, real-life problems (Tucker & Coddling, 1998, pp. 76-78).

Deeply rooted in Constructivist thinking ECHS - Lee believes:

- Students are expected to learn subject matter by organizing it themselves and developing their own personalized meanings (Larson, 1997)
- Teachers are responsible for facilitating the efforts of students to unite prior and new knowledge and engage in classroom-wide conversations necessary for internalization and deep understanding.
- Knowledge is created by people and influenced by their values, cultures, and prior experiences (Fosnot, 1989) and therefore diversity plays a major role in the stimulation of thinking (Scheurman, 1998).
- Best instructional process to facilitate teaching and learning include activities such as problem based learning, dialogues, and authentic assessment (Bruner, 1990)

Additionally, Jerome Bruner’s spiral learning process advocates that students and teachers repeatedly revisit basic ideas, in which subject matter is not taught in discrete modules, but rather in an environment which disciplines are connected and reconnected. Bruner (1990) emphasizes: “We teach a subject not to produce little living libraries on that subject, but rather to get a student to think empirically for himself, to consider matters as an historian does, to take part in the process of knowledge getting. Knowing is a process not a product.”

Research Base Supporting Initiatives

The philosophical and pedagogical beginnings for many of the educational purposes proposed for the Collegiate High School can be found in the early work of educational reformer John Dewey. They can be traced through the research and practices of educators whom high school and college faculty members have studied in their educational courses and modeled in their classrooms: Ralph Tyler, Jerome Bruner, Ted Sizer, John Goodlad, Neil Postman, Howard Gardner, John Gardner. Extensive research of best practices at high schools, Collegiate High Schools, and colleges throughout Florida and the nation has driven the selection of the academic purposes and principles that will put the educational philosophy to work.

Purpose 1: To establish a deliberate, small, and personal learning community in which all members have something to learn and something to teach.

Smaller learning communities benefit students, teachers, and parents by making effective communication easier, offering opportunities for collaboration, and encouraging meaningful relationships between students and adults. Research confirms that smaller schools are more productive and safer because they can address students' needs more personally, reducing feelings of alienation, and connecting students with caring adults. All of these conditions create an environment that contributes to positive student outcomes: higher student achievement, improved attendance and graduation rates, and reduced violence and disruptive behavior.

In over three decades of work with the Project on High Performance Learning Communities, Robert D. Felner (2007) of the University of Louisville concludes that the school environment can be personalized by creating small learning communities only if certain conditions are met: a student-teacher ratio of 25:1, 80 - 100 students per team, 60 - 80% of school day with the team, and frequent common planning times (p. 215). The projected numbers for students and teachers at the Collegiate High School, the projected schedule of classes, and the organization of the school day will satisfy those suggested conditions. During common planning times, teachers will work on coordination and integration of curricula, development of common performance standards, and coordination of student assignments and assessments.

The goal of the small learning community is to create "conditions that engage students, support learning, and enhance development" (Felner, 2007, p. 210). Ultimately such learning communities will give students "a sense of growth, of personal agency, of competence, of being someone whose individuality is recognized and fertilized" (Gtazek & Sarason, 2007, pp. 14-15).

Additionally, many learning communities use an interdisciplinary approach to bring about the integration of curricula, to erase the boundaries, to break down the barriers that so often exist among disciplines. This type of curricular integration is also socially relevant: "the issues facing the world and the planet today are not neatly organized according to disciplines...any significant issue is so complex that understanding and addressing it requires an interdisciplinary approach" (Smith, MacGregor, Matthews & Gabelnick, 2004, p. 116).

Purpose 2: To engage in interdisciplinary, project-based inquiry labs, allowing students to learn by doing.

If the purpose of education is to prepare individuals to be contributing members of society, then educational process should mirror the situations that students will be involved in. Hill (1998) stated that in the real world technological problem solving is interactive, not linear and step-by-step. To help prepare students for this requirement, interdisciplinary inquiry labs will encourage students and teachers to discover, experience, share, and use knowledge, rather than simply retain it. This method of learning gives students real challenges to address and authentic goals to achieve. This method of teaching recasts teachers in the roles of coach and mentor and colleague. Both teachers and learners are engaged in a similar quest. Project-based inquiry labs will feature the following components:

- A “driving question” (sometimes called an “essential question” or a “compelling question”) that is anchored in a real-world problem and encompasses multiple disciplines.
- Opportunities for students to design plans or experiments, make predictions, collect and analyze data, debate ideas, draw conclusions.
- Collaboration among students, teachers, and others in the community so that knowledge can be shared and distributed among the members of the “learning community” (Blumenfeld et al., 1991).
- The creation of artifacts that represent the knowledge gained through the inquiry, ie; a 3-D model, a report, a videotape, a PowerPoint presentation.
- The completion of a capstone or final project that either combines previously created artifacts of learning or requires student to synthesize new ideas and create new evidence of their learning.

In project-based inquiry labs, students develop knowledge and skills through shared learning, rather than learning in isolation and in competition with others. Torp (2002) reports that “anecdotal evidence about project-based learning is highly supportive.” Implied in the term “project based learning” is a concept of group work and team collaboration. Dillenbourg (1997) defines collaboration as “a coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conceptualization of a problem.” Teachers consistently report that cooperative collaboration results in increased student engagement in the learning process, increased student responsibility for learning, and deeper levels of understanding. Library and media specialists report that students use more library materials, develop effective search strategies, and gain in information literacy. Principals report that discipline referrals and absenteeism decrease. Parents report hearing about what is happening at school without having to ask” (Torp, 2002).

Purpose 3: To promote thinking, reading, and writing across the curriculum.

All students will take an introductory course in critical thinking. The purpose of this class is twofold; first and foremost it will serve as a formal introduction into the benefits and essential skills of critical thinking. Secondly, it will serve

as dedicated time and a “neutral venue” for instructional staff to foster interdisciplinary connections and meta cognition activities. Often times, classroom projects are limited to a discrete content area with serious time constraints and little coordinated effort is focused on bridging the gap between traditional disciplines. The critical thinking class can also provide a venue for students to work cooperatively in groups on capstone or other culminating activities without requiring content teachers to give up academic learning time. For example, a **freshman physics course**, coupled with Algebra 1, can be the perfect content area in which to apply the concepts of **critical thinking**: intellectual curiosity, questioning strategies, analysis, synthesis, evaluation. Furthermore, in hands-on inquiry labs, students will experience keeping an open mind, determining validity and reliability of information, drawing and testing conclusions, generating solutions to problems, seeking out conflicting points of view. By formally studying the discipline of critical thinking, students will learn how to filter ideas and data, arranging them in logical (or creative) sequences and patterns and trying to make sense of them. As Weiner (1993) points out, ideas are important to new inventions, but there is a further conditioning of ideas in terms of the materials and processes available. The mathematics teacher, the language arts teacher, and the social studies teacher will also be showing students how critical thinking skills can be used to better understand the important elements of each discipline and to determine the commonalities among disciplines.

Comment [U1]: Physics First is an option....balanced by the bio-tech connection.

Ultimately, the Collegiate High School student will develop into a well-cultivated critical thinker, defined by Elder and Paul (2001) of the Foundation for Critical Thinking, as one who:

- Raises vital questions and problems, formulating them clearly and precisely;
- Gathers and assesses relevant information, using abstract ideas to interpret it effectively;
- Comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards;
- Thinks open-mindedly within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences; and
- Communicates effectively with others in figuring out solutions to complex problems.

Another interdisciplinary effort will be the teaching of **reading** across the curriculum, incorporating many of the same techniques that are used in critical thinking. “Focused instruction in clearly defined critical reading is urgent and essential, and even more important as digital texts and electronic searching increasingly dominate the reading landscape” (Horning, 2007, p.1). The availability and immediate access to more and more resources require even more carefully refined reading and analytical skills. In traditional settings, most teachers are not trained in the teaching of reading, so they often times assign readings that their students do not complete or, if they do finish, do not understand. Horning speculates that “lack of instruction, lack of practice, and a mythic view that reading is less important because of computers” (p. 4) is at

the heart of the reading problems that many students experience today. According to the National Survey of Student Engagement (NSSE), more than 80% of college seniors report that they attend class without doing the assigned readings, making clear that part of the reason students don't read well enough is that they don't get sufficient practice (Nathan, 2005, p.122). The Collegiate High School teachers will consider reading to be a top priority.

Horning calls for four reading strategies that can be employed by teachers of any discipline:

- Understanding the reading process;
- Teaching skills that go beyond basic comprehension:
- analysis, synthesis, evaluation;
- Providing significant opportunities to practice reading;
- Understanding the particular skills needed in specific disciplines. (pp. 10-11).

Incorporating regular reading instruction into lesson planning will be expected of all high school teachers. The focus will be on enhanced comprehension through broadening vocabulary and developing background knowledge with teachers as coaches and collaborators. As students see in class how their teachers and fellow students make sense of a textbook, a short story, a mathematics problem, they will master the many skills of reading; they will learn to summarize, make predictions, ask challenging questions, paraphrase difficult passages, outline, highlight, annotate. (More information about reading across the curriculum will be found in the Section 4: Curriculum Plan - Focus on Reading.)

In combination with reading across the curriculum, teachers will also focus on **writing**. The National Writing Commission of The College Board (2003, April) proposes that "American education will never realize its potential as an engine of opportunity and economic growth until a writing revolution puts language and communication in their proper place in the classroom. Writing is how students connect the dots in their knowledge." The Collegiate High School will adopt writing-across-the-curriculum, a pedagogical movement that began in the 1980s and continues to flourish today. This academic movement has several basic principles:

- writing is the responsibility of the entire academic community;
- writing must be integrated across departmental boundaries;
- writing instruction must be ongoing;
- writing promotes learning.

Often when students write their responses to what they have read, they acquire a better understanding of content. The writing need not be long or intense; indeed, frequent short response writings are often more valuable than lengthy papers, in part because teachers can give more immediate feedback. Additionally, writing as a form of assessment not only enhances the specific academic skill of writing, it provides students with an opportunity to create new combinations of ideas, create new thoughts, and demonstrate their

mastery of vocabulary and background knowledge, ultimately reinforcing their reading skills. When all teachers require writing, students learn that writing is integral in all disciplines, essential to the learning and conveying of knowledge in all fields. Just as students need to develop reading skills that go beyond simple comprehension and simple response, so they need to develop writing skills that allow them to analyze, synthesize, and evaluate.

Indeed, thinking skills, reading skills, and writing skills are so integral to learning, to growing, to maturing that they must be taught in every classroom. As mathematics reformer Lynn Steen stated: "Literacy is no longer just a matter of words, sentences, and paragraphs but also of data, measurements, graphs, and inferences. Patterns and numbers lurk behind words and sentences, in machines and computers, in organizations and networks. Literacy is about reading and reasoning, writing and calculating; it is about solving problems and using technology; it is about practices as well as knowledge, procedures as well as concepts" (Steen, 1997, p. xxvii).

Purpose 4: To offer individualized instruction and differentiated instruction to address various learning styles.

Research in learner-centered theory is strong and compelling. The American Psychological Association (APA) provides a knowledge base for understanding learning and motivation as natural process that occur when the conditions and context of learning are highly supportive of individual learner needs, capacities, experiences, and interests. In other words, until the learning experience becomes personal, the student may be detached or uninterested, even unmotivated. To help eliminate this potential pitfall, each student, in concert with their guidance counselor and parents, will develop a Goal-oriented Learning Document (GOLD - as in Go for the GOLD). "If schools are to get better at identifying and leveraging students' talents, parents' insights are essential. What's more, helping a child think about his greatest talents can help his parents anchor their relationship with him through a time of potential emotional turmoil" (Gordon, 2006, p. 253). The GOLD plan, based on each student's academic achievements, strengths and weaknesses, and personal interests, will include goals - academic, career, life - and the courses needed to meet those goals. The GOLD plan, which will be updated at least twice each year, will document a student's progress towards meeting all Florida statutory requirements for high school diplomas and associate degrees.

Faculty members will use student data, from middle school records and from standardized testing, and eventually from student performance at the high school, to plan targeted strategies for academic progress and success. Additional and critical feedback about the effectiveness of a given class can be measured by the Entwistle & Ramsden's Course Perception Questionnaire (CPQ). This evaluation tool is considered to be the most suitable instrument for measuring aspects of the learning environment at the general or individual level (Lizzio, 2002). After reflecting on their own contributions to the class, faculty members will assist students in recognizing how to capitalize on their strengths and overcome their weaknesses.

In the classroom, teachers will be cognizant of the various ways that individual students learn and will adapt their teaching to a variety of learning styles. It matters not whether they choose to use Howard Gardner's (1993) theory of multiple intelligences (verbal/linguistic, logical/mathematical, visual/spatial, musical/rhythmic, bodily/kinesthetic, interpersonal, intrapersonal, naturalistic) or Rita Dunn and Ken Dunn's (1987) more basic learning style differentiations (auditory, visual, tactile, kinesthetic, tactile/kinesthetic). What does matter is that teachers select strategies for instruction and for assessment that will foster student success.

The school's efforts for preparing students to succeed in college-level classes, grounded in an accelerated curriculum for all grade levels, will be delivered at a pace which will require multiple systems of support for students' academic and emotional needs. The Collegiate High School will offer the following support systems that are standard at successful small schools:

- Regular staff meetings to share concerns about individual students
- Transparent access to daily coursework and homework
- Periodic, anecdotal progress reports from teachers
- Collaboration among counselor and teachers when interventions are necessary
- Written academic plans like the Goal-oriented learning document (GOLD) developed with each student and his parent(s)/legal guardian(s)
- Extra study sessions for those students in need of special attention
- Specific academic capacity building for specialized topics, such as time management, study skills, test-taking strategies, ect...

Purpose 5: To create an awareness of our positions in the world, both as individuals and as a society, and an appreciation for individual and cultural differences.

The internationalization or globalization of the curriculum will allow students to be exposed to and develop an appreciation for different cultures, different languages, different political and economic systems. Collegiate High School personnel will encourage students from all ethnic backgrounds to apply in order to encompass a diverse student body that is representative of the county population. High school teachers will help students to develop projects through which they can share their family backgrounds. Teachers will also become acquainted with a wealth of community resources that can assist in bringing diversity into the classroom.

Reed (2007) offers an incisive view of what it means to internationalize the curriculum:

- Respecting and acknowledging different perspectives is the key to internationalization of the curriculum. Internationalization goes far beyond cultural awareness and including case-studies from other cultures than one's own. The skills that graduates should acquire from a truly internationalized curriculum are to be open-minded, show respect and curiosity about other practices and be capable of showing a willingness to reassess and reevaluate accepted practices and ways of thinking. (p.390)

Cuseo (1998) presents a multitude of strategies for teachers to employ in the classroom, among them:

- Allow students to share their personal histories;
- Form small-discussion groups of students from diverse backgrounds;
- Identify patterns of unity that transcend group differences;
- Encourage students to engage in “reverse thinking” by asking them to switch their original position on an issue.

Collegiate High School students will be made keenly aware of the roles that the United States plays in the world. Current local, national, and international events will be a focus for discussions in advisor groups and in classrooms. “Every major issue that people face—from environmental degradation and global warming, to pandemic diseases, to energy and water shortages, to terrorism and weapons proliferation—has an international dimension” (Stewart, 2007, p. 1). Realizing that education is key to the position of the United States in the world, students will build a view of themselves in the world that recognizes Richard Florida’s theory “that creativity is the most important source of wealth in the modern world, that every human being is creative, and that people everywhere place a high value on engaging creative work” (2005, p. 36).

In inquiry-based project labs, students will explore themes that represent our world as an interconnected organism and will come to understand this interconnection through the lenses of science, mathematics, social studies, literature, and the arts.

Purpose 6: To institute a professional development program for teachers that provides support and fosters innovation.

Professional development is a continuous process of individual and group examination and improvement of teaching and learning practices. A professional learning community exists when the entire faculty and staff, including the administration, work together towards a shared set of standards and assessments that are known to everyone, including the students (Nathan, 2008). Professional development can take many forms: creating a personal reading list, taking graduate-level classes, sharing ideas with colleagues over coffee, or attending workshops and conferences. Professional development gains power when it is integrated into the school day and when teams of teachers use that time to make thoughtful decisions about curriculum, about instruction, about assessment. The organization of the Collegiate High School provides for continual and purposeful reflection on teaching and learning through common planning and collaborative work on non student contact days.

Collegiate High School faculty members will be able to take full advantage of the educational speakers and professional development workshops that are offered to the Edison State College faculty. The Teaching and Learning Center (TLC) at Edison State College contains a wealth of materials to assist teachers with curriculum development, student learning outcomes, assessment tools, and classroom management techniques. Throughout the school year the TLC

sponsors a series of “brown bag lunches” that address best practices in teaching. The Collegiate High School principal will work closely with the Office of Academic and Student Affairs to suggest incorporation of topics that will be particularly helpful to the high school faculty.

Collegiate High School teachers will be invited and encouraged to attend college faculty meetings within their individual disciplines. With a recognition of common purposes and with reinforcement of academic goals, both faculties will work together to achieve a seamless education for Edison students.

Just as Collegiate High School students will prepare a personal portfolio, so the Collegiate High School teachers will maintain a teaching portfolio that includes a written philosophy of education and collaborative professional development goals. A major part of each portfolio will be the teacher’s personal plan for professional development. The principal will meet with each teacher at least twice a year to review the portfolio and other data sources to provide collaborative and constructive feedback. As a part of the collaborative teacher evaluation process Collegiate High School faculty members will be afforded opportunities to attend conferences and conventions to further enhance their preparation. Selection of appropriate conferences and conventions will be guided by the thoughtful and student focused interaction between administrative and instructional staff. Without this type of collaborative and ongoing development of teachers, ECHS - Lee would run the risk that has plagued so many educational institutions. Nathan (2008) describes this risk as letting the weight of logistics of “doing school” prevent teachers and leaders from stopping to ask the hard questions that are necessary for the creation and survival of a professional learning community.

All high school teachers will be hired with or encouraged to complete the necessary course work for the reading endorsement. Additionally, extensive professional development opportunities and ample planning time will be available to the teaching staff as they develop the curricula and instructional strategies for this innovative high school.

Purpose 7: To develop new models of collaboration among the high school, the college, and the community.