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ABSTRACT

This document presents the Strategic Plan Revision of the Southeastern University and College Coalition for Engineering Education (SUCCEED). SUCCEED aims to institute a sustainable version of its curriculum model on each of the selected campuses. The areas of expertise in the program include faculty development, outcomes assessment, technology-based curriculum delivery, student transitions, freshman experience, transfer, and mentoring. Contents include: (1) Introduction; (2) SUCCEED's Organizational Structure--Its Foremost Strategy (Campus Implementation Teams, Coalition Focus Teams, and Coalition Service Teams); (3) Changes in SUCCEED's Management Structure (Rationale for Changes, Proposed Changes, and Concerns Regarding Changes); (4) SUCCEED's Overall Goals and Milestones; (5) SUCCEED's Core Strategies; (6) Dissemination CST Strategic Plan; (7) Clemson University Strategic Plan; (8) Florida A&M University--Florida State University CIT Strategic Plan; (9) Georgia Institute of Technology CIT Strategic Plan; (10) North Carolina A&T State University CIT Strategic Plan; (11) North Carolina State University CIT Strategic Plan; (12) University of Florida CIT Strategic Plan; (13) University of North Carolina at Charlotte Strategic Plan; and (14) Virginia Polytechnic Institute and State University Strategic Plan. (YDS)

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SUCCEED

SOUTHEASTERN UNIVERSITY AND COLLEGE
COALITION FOR ENGINEERING EDUCATION

Strategic Plan Revision

April 30, 2000

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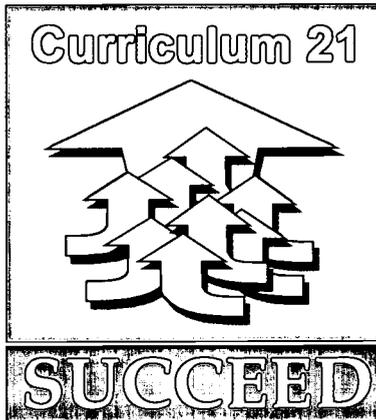
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Introduction

In **SUCCEED**'s proposal to the NSF for five additional years of funding, we recognized that certain changes would be necessary as NSF sponsorship nears completion—changes to ensure a legacy independent of that sponsorship. Among the anticipated changes were the strengthening of the Campus Implementation Team (since campus-based entities are the most likely to be successful without external funding), the funding of Coalition-wide activity from other sources, and an increasing dissemination effort. This revision of our strategic plan continues the practice initiated last year of seeking graphical ways to capture and review our plans. In the case of **SUCCEED**'s Campus Implementation Teams, which ensure that a version of our curriculum model is implemented on their campus, a matrix is provided that is a timetable illustrating the use of NSF funding to initiate innovation and then showing the transfer of innovation to institutional funding. For each campus, there is one such matrix for each area of **SUCCEED**'s focus. Our Coalition Focus Teams, which have a coalition-wide charter, receive less attention in this strategic plan—instead, the focus is on identifying the changing role of these teams and of **SUCCEED**'s Guidance Team. The astute reader will note that some sections of this report have changed little from the plan put forth in April 1999—we believe it is the hallmark of a good strategic plan that it need not be replaced entirely each year. Rather, the updating of a well-designed plan will require that some elements remain unchanged, that others be modified slightly to accommodate new information or changes in conditions, and that others be changed significantly to effect larger changes in direction.

SUCCEED's Organizational Structure—Its Foremost Strategy

The emphasis of our activities is the implementation and institutionalization of innovations produced by **SUCCEED** and, where appropriate, other Coalitions and non-Coalition schools. Our model curriculum is the template, and programs that change the academic culture and are driven by comprehensive assessment and evaluation results will facilitate its implementation. Given **SUCCEED**'s vision of achieving sustainable and systemic curriculum reform, the following key observations are incorporated into our strategy:

- 1) **SUCCEED**'s role is not to fully fund comprehensive implementation of our curriculum model on each campus, but rather to lead and facilitate implementation on all campuses.
- 2) Acceptance of our model and broad participation in the implementation process will be needed on each campus; particularly important is strong buy-in by the department chairs and other leaders on each campus.
- 3) Each implementation of our curriculum model will differ, reflecting the diversity of the **SUCCEED** Colleges of Engineering.
- 4) The strength of the Coalition approach is in reduced development and testing cost, a support structure, shared resources, and the credibility of NSF funding.

Campus Implementation Teams

Based on these observations, **SUCCEED** designed a team-based structure that empowers and supports each college in its efforts to implement our curriculum model. The heart of this structure is the **Campus Implementation Team (CIT)**. A **CIT** has been formed on each campus with the mission of developing and implementing a strategic plan that will produce sustainable and systemic curriculum renewal on the individual campus. Each **CIT** has developed a strategic plan for achieving systemic change over a five-year period—details of each campus’ plan are provided later. Each campus implementation team has the role of leadership and facilitation. The team will also be involved in assessment and evaluation of their campus programs to guide its decisions and to provide input to the other **CITs**. It is critical to recognize that each campus is different and the **CIT** will understand its campus and how the **SUCCEED** model should be adapted to it. Our strategy empowers the **CITs** to effect curriculum renewal on their campuses; their activity is central to achieving our vision.

Coalition Focus Teams

An analysis of the strengths, weaknesses, and opportunities facing **SUCCEED** led the Guidance Team to identify the critical issues that must be addressed in order to achieve implementation of the **SUCCEED** curriculum model on all campuses. Identification of these critical elements was based on input from our stakeholders (e.g., Dean’s Council, External Advisory Board, review team, department chairs, student advisory team, and **SUCCEED** PIs). Four areas were selected from this input. These core competencies are:

FOCUS AREAS

- 1. Faculty Development**
- 2. Outcomes Assessment**
- 3. Student Transitioning**
- 4. Technology-Based Curriculum Delivery**

A second set of teams was formed, called **Coalition Focus Teams (CFTs)**, with the charge of facilitating the implementation of our innovations in each of these four critical areas. Each of the four **CFTs** has had a member from each **SUCCEED** campus and these **CFT** members have also been members of their home **CIT**. This matrix organization has helped ensure that the **CFTs** are addressing the issues necessary for success on each campus and maximizing communications between campuses in each focus area. The four focus areas represent the essential elements of our curriculum model, and at the end of five years each campus will have these elements deployed in their curricula.

Coalition Service Teams

Two additional teams round out **SUCCEED**’s strategy for success through collaboration. Because these two teams provide planning assistance and expertise to all Coalition teams, they are called Coalition Service Teams. The Dissemination Team is charged with reaching out to the engineering education community to share **SUCCEED**’s experiences. Through the more active

and focused dissemination strategies described later, **SUCCEED** will achieve a wider audience more rapidly. To gain acceptance for **SUCCEED**'s efforts and to guide internal planning, an Assessment and Evaluation team has also been formed. A wide range of complementary strategies will enable **SUCCEED** to provide the evidence necessary to facilitate change.

Changes in SUCCEED's Management Structure

Rationale for Changes

When the **CIT/CFT** matrix structure was created, it was recognized that the roles of these teams would change over time, and specifically that funding of the **CFTs** would decrease toward the end of the contract. This is logical, since the **CFTs** will receive no funding after NSF funding terminates, whereas the **CITs** are likely to receive continued institutional support beyond **SUCCEED**'s Cooperative Agreement. There are other driving forces behind the proposed changes in management structure as well

- **SUCCEED**'s Guidance Team is large—typically, meetings are attended by 12-15 people. A smaller Guidance Team would make it easier to schedule, cheaper (in travel cost, meeting logistics, and in person-hours), and more efficient to reach consensus.
- Sharing within the **CFT** team structure has diminished. A new vehicle for sharing among institutions is needed.
- In the remaining years, it is critical that we focus our efforts on projects with a high potential for success.
- As we near the end of the Cooperative Agreement, the role of the **CFTs** must change to secure **SUCCEED**'s legacy.
- **SUCCEED**'s focus is shifting to dissemination, full institutionalization, proposal writing, and summary assessment, as we had expected in our long-range planning.
- The NSF is also driving **SUCCEED** toward the dissemination and assessment mission.
- Assessment and evaluation at the project and the **CIT** level is not as effective as it should be.

Proposed Changes

A number of changes are proposed to resolve the issues described above. These options are still under discussion and revision, pending the resolution of certain concerns described subsequently. Some of the changes being considered are:

- Reduce the size of the Guidance Team to one member per institution.
- Enlist a team made up of the **CIT** leaders to take responsibility for sharing among institutions.
- Expand the role and funding of the Dissemination Team.
- Make the Assessment & Evaluation effort a project that reports directly to the **GT**.
- Add assessment expertise at the **CIT** level

- Redirect the **CFTs** toward dissemination and legacy establishment in a project mode.
- Identify “experts” in a number of areas and have them lead dissemination, assessment, and best practice development in their area.
- A comprehensive plan for an expanded Dissemination Team is detailed later.

Concerns Regarding Changes

In trying to reach consensus as to how to best approach the restructuring of **SUCCEED’s** management, a number of concerns have surfaced. These concerns must be adequately addressed before restructuring will take place.

- We don’t want to lose the expertise or involvement of **PIs** or team leaders doing good work.
- We don’t want to “upset the apple cart”—causing too much disruption—so that we end up focusing on the results of the reorganization rather than moving forward.
- We don’t want to overwhelm our talented people with too much responsibility—this is a special concern with the plan option involving the identification of “experts.”
- We don’t want to lose the college representation and engagement that makes us a Coalition.
- The assessment support to the **CIT** will need to be a full-time employee (not necessarily full-time on this activity), or be supervised by full-time employee.

SUCCEED's Overall Goals and Milestones

SUCCEED defined a set of goals and milestones in preparing its proposal to the NSF for continued funding. While the path we are taking, our strategic plan, has been updated with knowledge and experience, we are still committed to reaching the same destination mapped out here.

SUCCEED GOALS

Overarching Goal **Institute a sustainable version of our curriculum model on each SUCCEED campus.**

- **Create a strong first-year environment for students and develop a skill set for success in the workplace.**
- **Establish a comprehensive engineering faculty development program on each SUCCEED campus.**
- **Install continuous curriculum improvement processes that are driven by assessment of the quality of our graduates.**
- **Deploy a network-based collaborative learning environment on each SUCCEED campus.**
- **Identify best practices for the diffusion of educational innovation into engineering curricula.**
- **Market the very best SUCCEED products and processes beyond the Coalition through the establishment of partnerships.**
- **Assess and evaluate the success of our Coalition's activities.**

Part of our core strategy is to measure our progress towards reaching our goal set using the following key **SUCCEED** milestones.

KEY MILESTONES

- **Development of an annually-updated strategic plan for implementing the SUCCEED curriculum model on each campus.**
- **60% of the Coalition Engineering faculty will have participated in the faculty development program by the end of Year 10.**
- **50% of the SUCCEED academic units will have undergone SUCCEED-facilitated curriculum renewal by the end of Year 10.**

- Participation of 75% of **SUCCEED** departments in on-going collection of outcome assessment measure collection by the end of Year 10.
- 70% of courses in the **SUCCEED** Colleges of Engineering will incorporate technology by the end of Year 10, with a focus on web-based courseware management tools and empowering faculty to develop electronic-media-based instructional content.
- Implementation of a transition program and a real-world multidisciplinary capstone design experience on each campus.
- A focused number of non-Coalition Colleges of Engineering will have identified a strategy to adopt **SUCCEED**'s innovations.

The core strategies to achieve these goals and reach our milestones are overviewed in the next section.

SUCCEED's Core Strategies

The mission of **SUCCEED** in the next phase of funding is very simple:

SUCCEED Mission: Implement our curriculum model on each of our campuses and facilitate its dissemination beyond the Coalition.

Eight core strategies have been identified to accomplish this mission and are outlined in Table 1. Our central strategy is to enable and empower a **Campus Implementation Team** on each campus to formulate strategic and tactical plans for curriculum renewal and to facilitate their implementation. Through the formation of the **CITs**, a local leadership team has been established that understands the local needs, is empowered to effect change, and shares the Coalition's vision for curriculum reform.

We believe the eight core strategies listed in Table 1 will lead to implementation of our curriculum model on each of the eight **SUCCEED** campuses and facilitate its dissemination beyond the Coalition. The overview of the strategic plans of each of the eight **Campus Implementation Teams** and the **Dissemination Team** are given in the following sections. In previous years, a more detailed view of **SUCCEED**'s plans has been entered into AlliedSignal's total quality management software, *TQ Soft*. While this software was useful for establishing a common framework, terminology, and format for **SUCCEED**'s strategic and tactical planning, it no longer adds significant value to our operation. Even though we no longer use the software, we still retain much of its structure in our planning.

Table 1. Core Strategies

Strategies	Key Tactics
1. Give responsibility for sustainable and systemic curriculum reform to campus-based teams.	<ul style="list-style-type: none"> • Establish leadership team (CIT) on each campus. • Provide team with Coalition resources and support through Coalition Focus Teams and the A&E Team.
2. Obtain faculty buy-in for our model and empower them to implement it.	<ul style="list-style-type: none"> • Produce and disseminate faculty development material. • Establish a network-based learning environment. • Give faculty access to assessed and evaluated innovations. • Perform and communicate assessment and evaluation of our model’s effectiveness.
3. Install continuous curriculum renewal processes and best practices in academic units.	<ul style="list-style-type: none"> • Actively disseminate SUCCEED’s Curriculum Innovation and Renewal Manual. • Develop, test, and benchmark metrics for student and graduate attributes.
4. Create an active learning environment in which students from diverse backgrounds are able to attain success.	<ul style="list-style-type: none"> • Substantiate the current research that indicates technology tools significantly enhance the learning of certain groups. • Establish a network-based collaborative environment. • Integrate tested multimedia courseware into curricula. • Develop and test asynchronous learning tools. • Train developers of technology-based learning tools.
5. Coordinate Coalition focus on the scale-up and mainstreaming of first-year-on-campus programs to assist student transition into the University.	<ul style="list-style-type: none"> • Transport successful Community College Transition programs. • Evaluation existing and test programs Coalition-wide. • Scale up and mainstream test “bridge” programs and expand women and minority peer mentoring programs.
6. Transport and scale up our practice and design products.	<ul style="list-style-type: none"> • Work with PIs of successful products to actively disseminate innovation. • Promote Coalition-wide links with industry.
7. Actively disseminate our curriculum model and its components beyond the Coalition through focused partnerships.	<ul style="list-style-type: none"> • Work closely with selected schools (Council of Schools) to implement our curriculum model. • Develop and execute dissemination plans for very best products/processes. • Promote access to SUCCEED’s products and processes through the Internet. • Establish partnerships with industry and other Coalitions.
8. Convince the engineering education community of the value of our model and its components.	<ul style="list-style-type: none"> • Perform ongoing Coalition-wide qualitative assessment. • Continue building a longitudinal database for quantitative assessment. • Research the diffusion of educational innovation.

Dissemination CST Strategic Plan Overview

Coalition Goal

In the SUCCEED renewal proposal dissemination is listed as one of seven goals to be pursued in the period of the second five year award. Specifically, that goal reads: "Market the very best products and processes beyond the Coalition through the establishment of Partnerships". During years nine and ten, the Dissemination Team will undertake this responsibility on behalf of the Coalition.

Milestone

The only milestone listed in the renewal proposal dealing with dissemination states: "A focused number of non-coalition Colleges of Engineering will have identified a strategy to adopt SUCCEED innovations". The term "a focused number" is both vague and non-quantitative compared to the other SUCCEED milestones that include specific measures of accomplishment. We propose the dissemination milestone be changed to read:

"Impact an equal number of faculty and students outside the coalition to those in SUCCEED."

Using interactive partnerships with non-coalition Engineering Colleges makes measuring the success of achieving the proposed milestone simpler. Although not a complete measure of the students and faculty impacted, the undergraduate student enrollment of non-coalition engineering schools with whom SUCCEED develops partnerships will be used as a quantitative measure of the accomplishment of the proposed milestone. Other dissemination activities will in fact significantly raise this number.

Past/Current Dissemination Efforts

It should be recognized that the Coalition has been engaged over its entire period of operation in a variety of ongoing dissemination efforts. To list some of the more important would include: the Innovator, the coalition web site, the SUCCEED Annual Conference, product CD-ROM distributions, conference paper presentations and journal publications, individual PI product dissemination, the Council of Schools effort and the coalition display booth. All of these activities have been effective mechanisms for SUCCEED's dissemination goal. However, most of these activities have and continue to be conducted quite independently of one another and with very different levels of emphasis. Hence, their effectiveness and utility have been variable and little information has been compiled on the true measure of their success and impact. These observations reflect concerns that represent the greatest opportunity for improvement and expansion of the current dissemination effort.

Path Forward

Only two and a half years of formal NSF coalition funding are still available for planing and implementing an expanded dissemination program to meet both the expectations of SUCCEED and the National Science Foundation. To define and proceed with an entirely new plan for

disseminating SUCCEED's products would unnecessarily discount the value of the efforts to date. However, it is clear that improvements in effectiveness and resulting impact are required if these ongoing activities are to produce the magnitude of results expected. We propose that an expanded program of dissemination be implemented based on ongoing activities but managed, promoted, supported and conducted in a manner to achieve the desired improved outcome. To this end we propose to implement the following strategies:

1. Dissemination will become a major focus and activity of the coalition's program over its remaining two and a half years of formal operation.
2. All external dissemination activity conducted by the coalition will be coordinated and managed by a newly structured Dissemination Team.
3. All external dissemination activity will be integrated into a coordinated marketing plan based on proven marketing concepts and processes.
4. All dissemination efforts will emphasize taking the process and product expertise and knowledge of the coalition to the audience to serve their recognized needs.
5. In every instance possible, dissemination activities will be conducted in partnership with the assistance of other organizations that promote educational improvement.

Objectives

Based on the application of these strategies and building on the existing external dissemination activities now under way, the expanded dissemination program will be developed around the four following objectives.

- 1. Create a new awareness of SUCCEED's products, processes and expertise in the engineering community.*

This objective will be achieved by developing and implementing an integrated Marketing and Public Relations program based on the AIDA (Awareness, Interest, Decision, Action) marketing model. At the core of this program will be a high quality marketing package used to inform the engineering education community of what SUCCEED has to offer and how we can be of assistance. It will bring together all the present marketing efforts such as the newsletter, web site, CD-ROMs, etc. with newly created brochures and other distribution materials into a coordinated and focused information system directed to the needs and interests of the audience to be reached. Coupled with this effort will be a campaign of advertising through press releases, relevant articles and ads in appropriate educational publications and at suitable conferences.

The first task to be undertaken will be a marketing survey to determine where the coalition needs to concentrate its efforts in preparing to pursue a successful dissemination program. This will be accomplished in two steps. The first will be to establish what are the areas of expertise that the coalition feels it has to offer and is willing to support. This will be done by email survey of all the team leaders base on a set of potential expertise areas (See Dissemination Appendix A) put together by the Dissemination Team and finalized with the Guidance Team and the Director. Once this list is established an email marketing survey will be conducted of the Deans and academic program directors of 80 engineering schools across the US that enroll about 2/3 of the national undergraduate engineering enrollment not currently associated directly with the EEC

program. This survey will be used to determine which of the SUCCEED expertise areas are of greatest interest, whether the institution wants to discuss potential partnership activities and what mechanisms they might like to use for interaction. Responses will help define both the development of the public relations package to be developed as well as the extension of the Council of Schools program to be pursued.

The next task to be undertaken is to create an integrated Public Relations and Marketing package with a common corporate image and theme. The package will consist of four major elements: a newly developed coalition brochure, an accompanying CD-ROM, a revised web site and a supporting newsletter. The brochure will be prepared and produced with professional marketing and graphic presentation assistance. It will include general information on what SUCCEED has accomplished, the expertise it has created and can make available, the means by which interactions can take place and an invitation with convenient response mechanisms for obtaining more information and pursuing partnerships. In addition detailed inserts that provide greater detail on specific areas of expertise will be prepared to permit customizing the brochure package for specific potential customers. A CD-ROM will be created to be included with the brochure that carries out the same theme and provides information in a combined visual and audio format.

Revision of the web site will emphasize creating a presentation format that is appealing and useful to visitors that have little or no knowledge of what SUCCEED is or has accomplished and can make available. It will be structured such that a visitor does not have to know how SUCCEED operates or is structured to access useful and innovative educational information. A list of proposed content and characteristics of this revised web site are contained in Dissemination Appendix B. A structure under consideration is a dual purpose site that would also contain operational and other information useful to SUCCEED participants familiar with the Coalition's structure and operation. In other words a site that could serve both "outsiders" and "insiders" but would cater primarily to the interests and needs of visitors from outside the coalition for information and assistance in SUCCEED's areas of expertise.

The precise format and content of the CD-ROM to supplement the marketing brochure is yet to be determined. One possibility would be to create something like the CD produced by the Foundation Coalition. Whatever it's final form it will be primarily a marketing tool to support the brochure with its theme and "feel". Use of graphics with integrated audio and video will be used to create appeal and interest while being informative.

A summary of the proposed Marketing Plan strategies, tactics, channels and timeframe is presented in Dissemination Appendix C.

2. Expand and revitalize partnerships with non-coalition engineering schools

Although the current Council of Schools program has had mixed results partnering with other engineering schools throughout the academic community still represents one of the best mechanisms the greatest and most effective impact of SUCCEED beyond its own participants. Based on the lessons of past experiences, this program will be revised and expanded into a dual focus effort. One focus will be "demand" driven and be responsive to schools who indicate an interest for additional interaction through our marketing survey responses. The second focus will

be “coalition driven” and concentrate on those colleges of engineering in the southeast whose combined undergraduate enrollment is equal to that of SUCCEED. The key will be to learn from our experiences of the past and institute appropriate new procedures and means of interaction that will promote greater success.

The first task to be undertaken will be an assessment of the current Council of Schools Program experiences to determine what was successful and what needs to be revised in the process used to date. This will be undertaken as an A&E Team project already initiated. The evaluation will be conducted as a qualitative study using phone and email interviews with principal participants in the program both within SUCCEED and the non-coalition schools that have participated. The lessons learned will be used to revise the process of interactive partnership development before proceeding with the implementation of the dual focus partnership program outlined.

Following the completion of the COS Program evaluation and revision of the partnership development process appropriate personal and written contacts will be initiated with

- the institutions who indicated an interest in pursuing further interaction from the marketing survey
- the institutions in the southeast that are specifically targeted for partnership development. (This targeted group consists of some thirteen engineering schools of which five are in the present Council of Schools, see Dissemination Appendix D. This is deemed to be a manageable number of schools to develop and cultivate partnerships with over the next two and a half years provided sufficient coalition participation and support is forthcoming. If successful this effort would itself ensure attainment of the dissemination milestone.)

3. Facilitate the outreach capabilities of SUCCEED emphasizing its expertise

This objective deals with developing the means to extend the educational expertise and knowledge that has been developed by SUCCEED. We propose to identify experts from among SUCCEED participants and assist and support them to lead the development of outreach programs to complement the efforts of Objective 3. These experts will be chosen to support the areas of expertise established by the coalition as those chosen to be emphasized and supported in the dissemination program. The tasks of the expert will be to generate PR material, provide relevant web content, define the knowledge structure of their area, generate and deliver seminars and workshops and provide coalition wide assistance in their expert area. These experts will be directly accountable to and receive their financial support from the Dissemination Team.

4. Identify and involve strategic partners to market and distribute SUCCEED products

Project principal investigators who have successfully engaged in individual entrepreneurial efforts to disseminate their products have demonstrated the value of partnerships with outside organizations, such as publishers, government agencies and professional societies. Objective 4 will concentrate on the expansion of the use of these kinds of relationships to promote dissemination of SUCCEED products and processes. This will include support and assistance in identifying and developing appropriate supportive partnerships as well as having the Coalition, as an organization, enter into mutually beneficial relationships with other organizations supporting educational reform. Activities to be continued in this area include the SUCCEED

booth, faculty participation and workshops at the Annual ASEE and FIE meetings. Similar activities will also be planned for the ASEE Southeastern Section meeting for next spring. We propose to use these types of relationships to develop program efforts in areas of coalition expertise that will serve to become the legacy of SUCCEED following the termination of funding from the National Science Foundation.

Organizational Structure of Dissemination Team

The dissemination team will initially consist of a Team Leader, a Public Relations Coordinator and the Focus Team Leaders representing areas of expertise to be developed for dissemination. To provide continuity for earlier dissemination efforts those individuals currently responsible for the web site, the Innovator, the Council of Schools and the coalition CD will also serve on the team. This group will be responsible for creating detailed implementation plans for the proposed dissemination program. As plans are finalized, specific activities become implemented and responsibilities are assigned it is anticipated that the team membership will change to reflect a membership of those who will have a continuing role to play in carrying out the external dissemination effort.

Dissemination Appendix A: SUCCEED Areas of Expertise and Promotable Products

Faculty Development

- Teaching Effectiveness Workshop/series
- Teaching with Technology
- Mentoring new faculty
- Balancing Teaching, Research and Service

Outcomes Assessment

- Preparing for ABET
- Curriculum Renewal Manual
- Outcomes Assessment workshop
- Outcomes Assessment software

Technology-Based Curriculum Delivery

- Courseware management tools
- Asynchronous Learning Networks
- MBONE – distance learning
- CAPI
- ViMS
- Statics CD

Student Transitions

- Approaches to Multidisciplinary Design
 - Entrepreneurs Program
 - IPPD
 - Virtual Corporations
 - Clemson derivative of Savannah River Project
- Freshman Experience
 - Take-apart lab experience
 - Departmental exposure (in the manner of UF)
 - Writing across the curriculum
- Transfer
 - UF Community College Transfer program
- Mentoring
 - Various summer bridge programs for minority students
 - E-mentoring for women and minority students
 - On campus mentoring for women and minority students
 - Supplemental Instruction (UNCC)

Dissemination Appendix B: Proposed SUCCEED Web Site Information

The following items should be easily accessible on the SUCCEED web site for outsiders to explore:

- Library consisting of papers from Journals, conferences, etc.
- SUCCEED reports (annual, FD survey, evaluation)
- Workshop materials (OA, FD)
- Updated product directory in areas of expertise
- Links to SUCCEED related materials on the Web (e.g, Miller's interview on NPR, CAPI data, ViMS, Statics)
- All Innovators

The Web site should also contain the following characteristics:

- Coordinated "look and feel" with all other SUCCEED materials (brochure, CD)
- Everything should be up to date. All links should be checked.
- Easily searchable on topic areas that would likely be of interest to outsiders
- "Please put me on your mailing list" capability
- Ability to ask for more information about a particular item (e.g., a "help desk")
- Appealing to novices and accessible to those unfamiliar with SUCCEED and its terminology
- Current contact information for all products and other information above
- Current and easy to use directory
- Order form (for brochures, CDs, personal contact)

Dissemination Appendix C: SUCCEED Marketing Plan Years 9 and 10

This plan addresses the marketing of SUCCEED product and services and is intended to complement the Dissemination Team Strategic Plan. The purpose of this plan is to address the issue of building awareness of SUCCEED products, services, and expertise within the engineering education community with the expectation that this increased awareness will eventually lead to implementation of some of SUCCEED's innovations at other colleges of engineering throughout the US.

Marketing Strategy

Develop a coordinated presentation of SUCCEED's products, services, and expertise and deliver to the engineering education community.

Marketing Tactics

1. Survey the deans and associate deans for undergraduate affairs at the 70 colleges of engineering that are not part of any coalition and that, with the coalition schools, collectively account for 2/3 of undergraduate engineering enrollment in the US. This short survey will be

used to determine which SUCCEED products, services, and expertise hold the most potential to be adopted on other campuses.

2. Develop a brochure, CD-ROM, and Web site that present a unified and integrated “corporate identity” for SUCCEED.
3. Continue to encourage SUCCEED participants to present their innovations and findings in professional forums such as ASEE, FIE, and Journals.
4. Present workshops at appropriate professional forums on SUCCEED areas of expertise.
5. Deliver in-person advice and assistance to targeted partner institutions.

Marketing Channels

1. Direct mail of brochure and CD-ROM to all deans, associate deans for academic affairs, and department chairs at all 300 colleges of engineering in the US.
2. SUCCEED Web site.
3. Information booth at appropriate engineering education forums (ASEE, FIE, ASEE Southern Section, Technical Societies).
4. SUCCEED deans will be informed about SUCCEED products, services, and innovations and encouraged to talk about it among their peers.
5. Personal interaction and follow-up with targeted partner institutions and those indicating interest.
6. Innovator
7. Paid Advertisements

Dissemination Appendix D: Schools Targeted for Partnerships in the Southeast

Alabama

Auburn University

Mississippi

Mississippi State Univ. *

Virginia

George Mason
Univ. of Virginia

Florida

Univ. of Central Florida *
Univ. of South Florida

Puerto Rico

Univ. of Puerto Rico *
Polytechnic University *

West Virginia

West Virginia University

Kentucky

Univ. of Kentucky
Univ. of Louisville

Tennessee

Univ. of Tennessee *
Tennessee Tech

* Already participants in the Council of Schools

Clemson University Strategic Plan Overview

Vision beyond SUCCEED

Clemson will have institutionalized SUCCEED-fostered innovations, including:

- ◆ **Faculty Development.** Frequent workshops and seminars will help faculty improve teaching effectiveness; participation in national and regional teaching improvement programs will be supported; outstanding teaching will be recognized and rewarded.
- ◆ **Outcomes Assessment.** Systematic and effective outcomes assessment will support regular program review leading to continuous curriculum improvement. Programs will have clear and regularly updated objectives based on input from all major constituencies.
- ◆ **Student Transitions.** Mentoring and counseling programs will support the success of all entering students. Freshman courses will be explicitly linked, and include meaningful engineering problem solving and design. Curricula will provide key workplace skills, include real-world experiences, and engage students in multidisciplinary activities.
- ◆ **Technology Based Curriculum Delivery.** Faculty will routinely use computer presentation and networked collaborative tools to enrich the learning environment. Asynchronous teaching methods will make courses available to distant learners such as students on co-op assignments, students preparing for transfer, and graduates pursuing life-long learning.

Core Strategies

- ◆ CIT objectives and tasks must be consistent with the Strategic Plan of the College;
- ◆ SUCCEED activities must leverage university resources and initiatives wherever possible;
- ◆ Clemson programs must support the SUCCEED goals and deliverables.

Key Accomplishments in Years 6-8

Built upon SUCCEED innovations in years 1-5, key accomplishments in years 6-8 include

- ◆ **Faculty Development**
 - ◆ Nine faculty forums/workshops for College of Engineering and Science faculty
 - ◆ Orientation to Teaching workshop for new CES faculty developed and in place
- ◆ **Outcomes Assessment**
 - ◆ All engineering programs have implemented effective outcomes assessment programs
 - ◆ SUCCEED curriculum innovation and renewal, ABET 2000 processes integrated
- ◆ **Student Transitions**
 - ◆ Freshman engineering courses overhauled with more hands-on engineering content
 - ◆ Multidisciplinary Design now includes four programs, several industry sponsors
- ◆ **Technology Based Curriculum Delivery**
 - ◆ Laptop Pilot Program provides Universal Computing Environment
 - ◆ Collaborative learning environment tools available and in use by many CES faculty

Clemson CIT Faculty Development Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	- Integrated Freshman Year forum	- Active learning workshop - Asynchronous Learning seminar
Year 7	- Orientation to Teaching Workshop - Topical seminar/faculty forum - Faculty Teaching Fellow - Topical workshops (2)	- Topical seminar/faculty forum - Attendance at NETI
Year 8	- Orientation to Teaching workshop - Faculty Teaching Fellow	- Topical seminar/faculty forum - Attendance at NETI
Year 9	- Orientation to Teaching Workshop - Faculty Teaching Fellow	- Topical seminar/faculty forum - Attendance at NETI
Year 10	- Faculty Teaching Fellow - Orientation to Teaching Workshop	- Topical seminar/faculty forum - Attendance at NETI
Year 11		- Faculty Teaching Fellow - Attendance at NETI - Orientation to Teaching Workshop - Topical workshop - Topical seminar/faculty forum

Clemson CIT Outcomes Assessment Institutionalization Timetable

	SUCCEED Sponsored Activity	University, College, or Program Sponsored Activity
Year 6	<ul style="list-style-type: none"> – Develop engineering alumni survey inserts to gather OA data – Develop employers of engineering alumni survey to gather OA data, and conduct employer survey – Develop engineering program evaluation and assessment processes for each BS engineering program 	<ul style="list-style-type: none"> – Conduct alumni survey – Program faculty participate in development of employers of engineering alumni survey to gather OA data – Program faculty participate in development of engineering program evaluation and assessment processes for each BS engineering program, and application of processes
Year 7	<ul style="list-style-type: none"> – Refine engineering and computer science alumni survey inserts to gather OA data – Refine employers of engineering and computer science alumni survey to gather OA data, and conduct employer survey – Refine engineering program evaluation and assessment processes for each BS engineering program – Develop best OA indicators database – Refine the Curriculum Innovation and Renewal Process in two test applications 	<ul style="list-style-type: none"> – Conduct alumni survey – Program faculty participate in refinement of employers of engineering and computer science alumni survey to gather OA data – Program faculty participate in refinement of engineering program evaluation and assessment processes for each BS engineering program, and application of processes
Year 8	<ul style="list-style-type: none"> – Conduct survey of employers of engineering and computer science alumni to gather OA data – Refine best OA indicators database – Apply the refined Curriculum Innovation and Renewal Process in two programs 	<ul style="list-style-type: none"> – Conduct alumni survey – Ongoing use of evaluation and assessment processes in each BS engineering/computer science program. – Ongoing curriculum innovation and renewal in two BS engineering/computer science programs using the Curriculum Innovation and Renewal process
Year 9	<ul style="list-style-type: none"> – Conduct survey of employers of engineering and computer science alumni to gather OA data – Refine best OA indicators database – Apply the refined Curriculum Innovation and Renewal Process in two programs 	<ul style="list-style-type: none"> – Conduct alumni survey – Ongoing use of evaluation and assessment processes in each BS engineering/computer science program. – Ongoing curriculum innovation and renewal in four BS engineering/computer science programs using the Curriculum Innovation and Renewal process
Year 10	<ul style="list-style-type: none"> – Conduct survey of employers of engineering and computer science alumni to gather OA data – Apply the refined Curriculum Innovation and Renewal Process in two programs 	<ul style="list-style-type: none"> – Conduct alumni survey – Maintain best OA indicators database – Ongoing use of evaluation and assessment processes in each BS engineering/computer science program. – Ongoing curriculum innovation and renewal in six BS engineering/computer science BS program using the Curriculum Innovation and Renewal process
Year 11		<ul style="list-style-type: none"> – Conduct alumni survey – Conduct survey of employers of engineering and computer science alumni to gather OA data – Maintain of best OA indicators database – Ongoing use of evaluation and assessment processes in each BS engineering/computer science program. – Ongoing curriculum innovation and renewal in each BS engineering/computer science program using the Curriculum Innovation and Renewal process

Clemson CIT Student Transitions Institutionalization Timetable

	ACTIVITIES	
	SUCCEED-sponsored	College or Dept.- sponsored
Year 7	<ul style="list-style-type: none"> • Revise ENGR 101 • Revise ENGR 120 • Initiate peer-mentoring prog. • MultiDiscip. Design course • Expand international/co-op 	<ul style="list-style-type: none"> • Assessment of international/co-op efforts • Assessment of peer-mentoring program
Year 8	<ul style="list-style-type: none"> • Complete ENGR 101 rework • Complete ENGR 120 rework • Phase II peer-mentoring program • Expand MDD course • Initiate integrated first year program • Establish internal transitions framework 	<ul style="list-style-type: none"> • ENGR instructor workshop (1) • <i>Storage space procured for ENGR class materials</i> • Mentor workshops (2) • Initiate assessment of ENGR rework • Continue assessment of international/co-op efforts • Evaluate MDD progress
Year 9	<ul style="list-style-type: none"> • Complete ENGR manuals & use in classes • Finalize peer-mentoring • Continue integrated first year activity • Establish MDD at final level • Complete formal internal transition program 	<ul style="list-style-type: none"> • ENGR instructor workshop (2) • <i>Storage space expanded for ENGR class materials</i> • Mentor workshops (2) • Continue assessment of ENGR rework and international/co-op • Initiate peer-mentoring assessment
Year 10	<ul style="list-style-type: none"> • Complete integrated first year program design • Develop MDD "Instruction Manual" to aid future instructors • Minimal support for peer-mentoring • Use ENGR manuals in classes 	<ul style="list-style-type: none"> • ENGR instructor workshops (2) • <i>Begin baseline purchase of items for ENGR design activities</i> • Mentor workshops (2) • Continue peer-mentoring program • Continue assessment of ENGR rework • Initiate assessment of integrated first year • Continue peer-mentoring assessment
Year 11		<ul style="list-style-type: none"> • ENGR instructor workshops(2) • <i>Continue purchase of items for ENGR design activities</i> • Mentor workshops (2) • Continue assessment of ENGR rework • Continue assessment of integrated first year • Continue assessment of international/co-op • Continue assessment of peer-mentoring

Clemson CIT Technology-Based Curriculum Delivery Institutionalization Timetable

	SUCCEED-sponsored Activity	College/Department-sponsored Activity
Year 6	<ul style="list-style-type: none"> • Universal computing environment pilot study • Distance collaboration for student projects • Technical support for ALN 	<ul style="list-style-type: none"> • Universal computing environment pilot • Evaluation of course management tools • Initial classroom trials of course management tools • Workshop on WebCT
Year 7	<ul style="list-style-type: none"> • Universal computing environment pilot study • Distance collaboration support • Technical support for ALN • Sharable ALN modules • Develop mentor program • Develop student assistant program (STARS) • Streaming media workshop 	<ul style="list-style-type: none"> • Universal computing environment pilot • Develop training materials for course management tools • Web-based tutorials for TBCD • Cultivate user groups • Support of course management tools • Workshop on WebCT • Mentor program • STARS program
Year 8	<ul style="list-style-type: none"> • Upgrade Educational Technology Laboratory • Universal computing environment pilot • Digital media workshop • Assess training needs for TBCD tools for group project activities • Sharable ALN modules 	<ul style="list-style-type: none"> • Universal computing environment pilot • Improve campus networking infrastructure (Internet 2) • Promote faculty use of Ed Tech Lab • Coordinate faculty training with DCIT • Support user groups • Support of course management tools • Mentor, STARS programs
Year 9	<ul style="list-style-type: none"> • Mentor training workshops • Topical workshops • Upgrade Ed Tech Lab • Sharable ALN modules • Explore use of emerging high-bandwidth networks 	<ul style="list-style-type: none"> • Universal computing environment • Improve computing facilities • Promote faculty use of Ed Tech Lab • Explore use of high-bandwidth networks • Support of course management tools
Year 10	<ul style="list-style-type: none"> • Sharable ALN modules • Topical workshops • Demonstrate using high-bandwidth networks for TBCD • Contribute to “best-practices” 	<ul style="list-style-type: none"> • Universal computing environment • Upgrade Educational Technology Laboratory • Expand use of ALN using high-bandwidth networks
Year 11		<ul style="list-style-type: none"> • Educational Technology Laboratory • Universal computing environment • Smart classrooms • Course management tools • User groups • TBCD mentors • Topical workshops

Florida A&M University—Florida State University CIT Strategic Plan Overview

Vision Beyond Succeed

Faculty Development – As we go beyond year 10, the College will assume the responsibility for continued support. We trust that in the 8-10 transition years a sufficient number of faculty will have been involved with faculty development and innovative teaching to ensure that College support will be a natural and expected outcome. A collaborative effort has been initiated, and will continue, with the Technology Based Curriculum Delivery team members to strengthen faculty support and development and to facilitate the infusion of technology in teaching and learning activities.

The elements of our program for year 10 and beyond include: 1) a clearly assigned administrative responsibility for faculty development at the Associate Dean level, a designated FD coordinator for the College who reports to the designated administrator, and resources to support FD activities. The FD coordinator will also coordinate activities with the TBCD group; 2) ongoing learning opportunities for all engineering faculty; 3) rewards and incentives for effective and innovative teaching.

Outcomes Assessment – By Year 10, each BS program will have stabilized its assessment scheme. The CIT OA team will carry out “Alumni Performance Surveys” for all BS programs in Year 10. Thereafter, an OA coordinator will continue beyond Year 10 to coordinate these surveys for all BS programs. By Year 10, all BS program curriculum committees will have had adequate training and experience in the use of “student learning portfolios.” Beyond Year 10, an OA coordinator will hold regular seminars to update expertise in the use of student learning portfolios.

Student Transitioning – By the end of Year 10, the first year course will have become a standard component of all BS programs. Multi-disciplinary design courses employing contemporary technology-based tools and industry support will be available in all BS programs, and will be coordinated by the Office of Research and Industry Services of the college. Mentoring schemes will have been built into the BS programs in meeting EC 2000.

Technology-Based Curriculum Delivery – A TBCD team in collaboration with an FD team will continue to work to strengthen and facilitate faculty in infusing technology into teaching and learning activities. An annual hands-on “TBCD-FD Update Workshop” will be held every summer as a regular part of FAMU-FSU culture. This annual workshop will be an item of SUCCEED implementation that has become institutionalized.

Faculty will be given suitable recognition (through, for example, feature articles in a FAMU-FSU TBCD-FD Newsletter and travel cost supplements) for using technology as a means of achieving teaching excellence and learning effectiveness. As a result, faculty should regularly use technology to facilitate and manage collaborative learning environments in which interdisciplinary instruction and teamwork are institutionalized.

Over-Arching Strategy

Faculty Development and TBCD shall be directed at faculty and staff in their capacity as “shop-floor specialists” in the engineering education process, while Outcomes Assessment and Student Transitioning shall be directed at department chairs, associate department chairs, and curriculum committees in their capacity as “product quality coordinators”.

To effect institutionalization, continuous upgrading of human resources shall be given a high premium. This means that training schemes shall be provided as a component of most implementation tasks. Accordingly, numerous training workshops, along with recordings of workshop components, shall be provided. The recordings shall be in the form of 30-minute clips on the Web. Such clips should be especially useful to those unable to attend the workshops.

Significant Accomplishments

Faculty Development

- Workshop on Process Education (presented by Dan Apple) (June 97)
- Learning-community type workshop titled "On the Shoulders of Giants" (1998)
- Conducted a New Faculty Teaching Workshop (1998).
- Hosted SUCCEED-wide Effective Teaching Workshop (1998)
- Implemented an annual incentive and awards program for effective teaching – Five awards of \$500 to faculty who adopt innovating effective teaching methods (1998)
- Sent several teaching leaders to SUCCEED and other teaching workshops (1997-99)
- Coordinate efforts with Technology Based Curriculum Delivery program (1998-99)
- Utilize the Florida State University Program for Instructional Excellence in preparing in preparing our graduate Teaching Assistants.

Outcomes Assessment

- Faculty participated in all SUCCEED-wide OA Workshops – 1997/98 & 1998/99
- FAMU-FSU College Curriculum Committee and CIT met jointly Spring 1998 and Fall 1998 to spearhead a review of all BS degree programs for ABET EC 2000
- CIT recommended a template to all departments that they may use to organize their efforts to meet ABET EC 2000 in the spirit of SUCCEED Curriculum, Spring 1999

Student Transitioning

- CIT and College joint curriculum committee formulated framework for meeting ABET EC 2000 criteria, with special attention to student transition aspects
- FAMU-FSU piloted offering of a first year course
- Ad Hoc Committee reviewed offering, made recommendations for institutionalization
- FAMU-FSU piloted real-world multi-disciplinary collaborative design course

Technology-Based Curriculum Delivery

Local Workshops:

- HTML Workshop – 1997/98
- Web CT Workshop – 1997/98

SUCCEED-wide Workshops

- Technology Showcase (with FD Workshop) - 1998/99
- Presentation on synchronized audio and video for delivery of course material on web (with FD Workshop) – 1998/99

Other

- Development of a template to allow faculty to build course web pages easily
- Hiring of a staff member to assist faculty in using technology
- Videoconferencing a Carnegie Mellon class

FAMU-FSU CIT Faculty Development Institutionalization Timetable

	SUCCEED Sponsored Activity	College or Dept. Sponsored Activity
Year 8	Annual FD Workshop (Summer) Topical workshop series (Fall & Spring) Provide incentives/awards Faculty participation in FD conferences (all year) Participation in FD CFT programs (all year)	Topical workshop series (Fall & Spring) Provide incentives/awards Faculty participation in FD conferences (all year)
Year 9	Annual FD Workshop (Summer) Topical workshop series (Fall & Spring) Provide incentives/awards Faculty participation in FD conferences (all year) Participation in FD CFT programs (all year)	Topical workshop series (Fall & Spring) Provide incentives/awards Faculty participation in FD conferences (all year)
Year 10	Annual FD Workshop (Summer) Topical workshop series (Fall & Spring) Provide incentives/awards Faculty participation in FD conferences (all year) Participation in FD CFT programs (all year)	Topical workshop series (Fall & Spring) Provide incentives/awards Faculty participation in FD conferences (all year)
Year 11		Annual FD Workshop (Summer) Topical workshop series (Fall & Spring) Provide incentives/awards Faculty participation in FD conferences (all year) Participation in FD CFT programs (all year)

FAMU-FSU CIT Outcomes Assessment Institutionalization Timetable

	SUCCEED Sponsored Activity	College or Dept. Sponsored Activity
Year 8	Centralized Alumni Performance Surveys Training in use of portfolio for assessing "Student Learning Tasks" Faculty participation in OA conferences Participation in OA CFT programs	Centralized Alumni Performance Surveys Training in use of portfolio for assessing "Student Learning Tasks" Faculty participation in OA conferences Participation in OA CFT programs
Year 9	Centralized Alumni Performance Surveys Training in use of portfolio for assessing "Student Learning Tasks" Faculty participation in OA conferences Participation in OA CFT programs	Centralized Alumni Performance Surveys Training in use of portfolio for assessing "Student Learning Tasks" Faculty participation in OA conferences Participation in OA CFT programs
Year 10	Centralized Alumni Performance Surveys Training in use of portfolio for assessing "Student Learning Tasks" Faculty participation in OA conferences Participation in OA CFT programs	Centralized Alumni Performance Surveys Training in use of portfolio for assessing "Student Learning Tasks" Faculty participation in OA conferences Participation in OA CFT programs
Year 11		Centralized Alumni Performance Surveys Training in use of portfolio for assessing "Student Learning Tasks" Faculty participation in OA conferences Participation in OA CFT programs

FAMU-FSU CIT Student Transitions Institutionalization Timetable

Year	SUCCEED Sponsored Activity	FAMU-FSU Sponsored Activity
8	<ul style="list-style-type: none"> • ST workshops • Faculty course and lab development support • Support faculty visitations to industry for sustaining funding and recruiting industry mentors for multi-disciplinary design courses • Support faculty travel to conferences and workshops on ST focus areas 	<ul style="list-style-type: none"> • ST workshops • Faculty course and lab development support • Support faculty visitations to industry for sustaining funding and recruiting industry mentors for multi-disciplinary design courses • Support faculty travel to conferences and workshops on ST focus areas
9	<ul style="list-style-type: none"> • ST workshops • Faculty course and lab development support • Support faculty visitations to industry for sustaining funding and recruiting industry mentors for multi-disciplinary design courses • Support faculty travel to conferences and workshops on ST focus areas 	<ul style="list-style-type: none"> • ST workshops • Faculty course and lab development support • Support faculty visitations to industry for sustaining funding and recruiting industry mentors for multi-disciplinary design courses • Support faculty travel to conferences and workshops on ST focus areas
10	<ul style="list-style-type: none"> • ST workshops • Faculty course and lab development support • Support faculty visitations to industry for sustaining funding and recruiting industry mentors for multi-disciplinary design courses • Support faculty travel to conferences and workshops on ST focus areas 	<ul style="list-style-type: none"> • ST workshops • Faculty course and lab development support • Support faculty visitations to industry for sustaining funding and recruiting industry mentors for multi-disciplinary design courses • Support faculty travel to conferences and workshops on ST focus areas
11	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • ST workshops • Faculty course and lab development support • Support faculty visitations to industry for sustaining funding and recruiting industry mentors for multi-disciplinary design courses • Support faculty travel to conferences and workshops on ST focus areas

FAMU-FSU CIT Technology-Based Curriculum Delivery Institutionalization Timetable

	SUCCEED Sponsored Activity	College or Dept. Sponsored Activity
Year 8	TBCD Workshops Staff for technology support Incentives/awards	Inventory of best practices FAMU-FSU TBCD-FD newsletter Start of business partnership for videoconferencing distance learning
Year 9	TBCD Workshops Staff for technology support Incentives/awards	Inventory of best practices FAMU-FSU TBCD-FD newsletter Start of business partnership for videoconferencing distance learning
Year 10	TBCD Workshops Staff for technology support Incentives/awards	Inventory of best practices FAMU-FSU TBCD-FD newsletter Start of business partnership for videoconferencing distance learning
Year 11		TBCD Workshops Staff for technology support Incentives/awards Inventory of best practices FAMU-FSU TBCD-FD newsletter Start of business partnership for distance learning

Georgia Institute of Technology CIT Strategic Plan Overview

Vision Beyond SUCCEED

Georgia Tech's vision for Year 10 and beyond in the four focus areas of SUCCEED can be characterized as follows.

- *Faculty Development* – An on-going series of workshops and activities will be available for all Georgia Tech faculty to facilitate their continued development in all aspects of their academic careers.
- *Outcomes Assessment* – Georgia Tech will have an outcomes-based assessment program for all its educational programs, both graduate and undergraduate, involving an annual evaluation of assessment activities and a five year comprehensive program review.
- *Student Transitions* – Georgia Tech will have available an array of programs to assist all students with the initial transition to campus life, on-going transitions during their program of study, and transition to their post-graduation careers.
- *Technology-Based Curriculum Delivery* – Faculty productivity in the use of educational technology will be more broad-based, and student expertise in the use of technology-based learning materials will be substantially increased.

Over-Arching Strategies

The strategic plans, objectives, and assessment targets for the four focus areas are outlined in the following four sections. While the areas differ in their focus, they have three common elements. They describe activities that:

- will occur at least once a year, if not more frequently;
- build upon on-going efforts at Georgia Tech; and
- complement activities within the other focus areas.

Significant Accomplishments

Faculty Development

- Effective Teaching Workshop hosted; faculty participated in other SUCCEED and national workshops.
- Partnership with the Center for the Enhancement of Teaching and Learning established.

Outcomes Assessment

- Full-time Director of Assessment hired.
- Engineering Education Assessment Seminar established and meeting monthly.

Student Transitions

- Dual Degree transition program established.
- CHALLENGE program broadened to include all student groups.

Technology-Based Curriculum Delivery

- Video-conferencing facility brought on-line; used for SUCCEED meetings and disseminating SUCCEED results to others.
- Technology-based teaching/learning faculty group meets weekly.

Georgia Tech CIT Faculty Development Institutionalization Timetable

SUCCEED-Sponsored Activities

Institution-Sponsored Activities

Years 6-7	<ul style="list-style-type: none"> - Effective Teaching Workshops - Teaching w/Technology Workshop - Mentoring Seminars - Partnership w/CETL - GE Foundation Program 	<ul style="list-style-type: none"> - Effective Teaching Workshops - Teaching w/Technology Workshop - Mentoring Seminars - Partnership w/CETL - GE Foundation Program
Years 8-10	<ul style="list-style-type: none"> - Effective Teaching Workshops - Other FD Workshops - Mentoring Seminars/Program - COE FD Coordination by Associate Dean - CETL FD Steering Group - Intra-/Inter-Campus Network 	<ul style="list-style-type: none"> - Effective Teaching Workshops - Other FD Workshops - Mentoring Seminars/Program - COE FD Coordination by Associate Dean - CETL FD Steering Group - Intra-/Inter-Campus Network
Year 11		<ul style="list-style-type: none"> - Effective Teaching Workshop & Other Workshops as Designed by CETL - COE FD Coordination by Associate Dean - Intra-/Inter-Campus Network - Mentoring Seminars

Georgia Tech CIT Outcomes Assessment Institutionalization Timetable

	<i>SUCCEED-Sponsored Activities</i>	<i>Institution-Sponsored Activities</i>
Years 6-7	<ul style="list-style-type: none">- GT Eng. Educ. Assess. Seminar- Institute Assessment Director	<ul style="list-style-type: none">- GT Eng. Educ. Assess. Seminar- Institute Assessment Director
Years 8-10	<ul style="list-style-type: none">- GT Eng. Educ. Assess. Seminar- Integrated, campus assessment effort- Assess pre-/non-engineering courses- Create psychometric profile- Establish common data sets	<ul style="list-style-type: none">- GT Eng. Educ. Assess. Seminar- Integrated, campus assessment effort- Assess pre-/non-engineering courses- Create psychometric profile- Establish common data sets
Year 11		<ul style="list-style-type: none">- Integrated, campus assessment effort- Assessment administrative structure/oversight- Systematic data-gathering- GT Assessment Seminar

Georgia Tech CIT Student Transitions Institutionalization Timetable

	<i>SUCCEED-Sponsored Activities</i>	<i>Institution-Sponsored Activities</i>
Years 6-7	<ul style="list-style-type: none"> - CHALLENGE Broadened - Dual Degree Transition Program - Extended Fr. Transition Prog. Designed - Transition Performance Stds Created - Pilot Design Competition 	<ul style="list-style-type: none"> - CHALLENGE Broadened - Dual Degree Transition Program - Extended Fr. Transition Prog. Designed - Transition Performance Stds Created - Pilot Design Competition
Years 8-10	<ul style="list-style-type: none"> - Campus-wide CHALLENGE - Extended Fr. Transition Prog. - Freshmen Design Course - Transition Performance Measured - Dual Degree Transition Program 	<ul style="list-style-type: none"> - Campus-wide CHALLENGE - Extended Fr. Transition Prog. - Freshmen Design Course - Transition Performance Measured - Dual Degree Transition Program
Year 11		<ul style="list-style-type: none"> - Campus-wide CHALLENGE - Extended Fr. Transition Program - Freshmen Design Course - Dual Degree Transition - Transition Performance Evaluation

Georgia Tech CIT Technology-Based Curriculum Delivery Institutionalization Timetable

SUCCEED-Sponsored Activities

Institution-Sponsored Activities

- Years 6-7
- Video-conferencing Facility
 - ECE Technology Group meets weekly
 - Workshop on Teaching w/Technology
 - Student developed animation applets
 - Acquired Infrastructure for creating streamed media modules

- Video-conferencing Facility
- ECE Technology Group meets weekly
- Workshops on Teaching w/Technology
- Java course & development for education
- Initiatives for using streamed media in distance education

- Year 8
- Video-conferencing Facility
 - ECE Technology Group expanded
 - Initiate Tutoring Modules (streamed)
 - Workshop on Teaching w/Technology
 - Educate/train graduate assistants
 - Id/train more technology leaders
 - Link with other universities

- Intra-campus Videoconferencing
- Technology Group expanded
- Pilot Usage of Tutoring modules
- Workshops on Teaching w/Technology
- Educate/train graduate assistants
- Id/train more technology leaders
- Engineering program with south Georgia universities

- Year 9
- Video-conferencing Facility
 - Technology Group expanded
 - Easy Production of Tutoring Modules
 - Workshop on Teaching w/Technology
 - Data on technology impact in courses
 - Educate/train graduate assistants
 - Id/train more technology leaders
 - Link with other universities

- Intra-campus Videoconferencing
- Technology Group expanded
- Wider Usage of Tutoring modules
- Workshops on Teaching w/Technology
- Data on technology impact in courses
- Educate/train graduate assistants
- Id/train more technology leaders
- Engineering program with south Georgia

- Year 10
- Video-conferencing Facility
 - Workshop on Teaching w/Technology
 - Data on streamed tutoring impact
 - Link with other universities

- Intra-campus Videoconferencing
- Workshops on Teaching w/Technology
- Data on technology impact in courses
- Engineering program with south Georgia

Year 11

- Intra-campus Videoconferencing
- Technology Group Meetings
- Workshops on Teaching w/Technology
- Evaluate data on technology impact
- Expand education/training of faculty and graduate assistants
- Intra-/Inter- University Network Group

North Carolina A&T State University CIT Strategic Plan Overview

Vision Beyond SUCCEED

North Carolina A&T State University's vision for year 10 and beyond in each of the areas of SUCCEED can be summarized as follows:

- **Faculty Development:** A coordinator will integrate the College programs with the University programs and establish a formal development program for new faculty. Rewards and incentives for effective and/or innovative teaching and educational research will be an annual activity.
- **Outcomes Assessment:** OA activities will be an on-going and normal way of doing business in the College and all of its academic programs. The OA results will be the primary input to program curriculum revision and other processes at the college.
- **Student Transitions:** Several ST programs will be in place to address the needs of all our students. We will continuously seek new and improved methods of transitioning through the undergraduate program. There will be significant presents of Native Americans in our engineering program. All students will be able use a state of the art Product Test and Design Center to analyze various types of products.
- **Technology-Based Curriculum Delivery:** We will have a college-wide coordinator for the use of technology in engineering education. Faculty and students will be accustomed courses delivered via ALN technologies. Classrooms will include the latest technologies.

Over-Arching Strategies

- work with the University to leverage our activities;
- coordinator for each program; and
- a core of faculty committed to the effort.

Significant Accomplishments

Faculty Development

- Faculty have a better understanding of FD and how we can help them do a better job.
- Several faculty (20%) have attended teaching improvement workshops and returned better equipped and excited about teach effectively.

Outcomes Assessment

- SUCCEED OA team leader appointed as OA Director for COE
- Weekly meetings attended by representatives from all departments

Student Transitions

- An industry supported cost-effective summer bridge program initiated. (ALVA)
- An industry supported professional development workshop series (AGGIENEER Workshop) was also established.

Technology Based Curriculum Delivery

- The university has established a Faculty Interest Group for TBCD.
- A laboratory has been established for Collaborative Learning Environments.

NC A&T CIT Faculty Development Institutionalization Timetable

	SUCCEED – Sponsored Activities	University/College – Sponsored Activities
Year 6	<ul style="list-style-type: none"> • Planning and data gathering 	<ul style="list-style-type: none"> • FD Program begins with 10 workshops
Year 7	<ul style="list-style-type: none"> • Defined best practices • Brown bag discussion group on teaching • Plans for a new faculty orientation program 	<ul style="list-style-type: none"> • University FD program with 10 workshops • Plans new faculty orientation program • Coordination of several FD programs on campus
Year 8	<ul style="list-style-type: none"> • FD Coordinator • A new faculty orientation program • Support for travel to development workshops • Support for special incentives for excellence in teaching 	<ul style="list-style-type: none"> • University FD program • Brown bag discussion group on teaching • FD Coordinator • A new faculty orientation program • Support for travel to development workshops
Year 9	<ul style="list-style-type: none"> • FD Coordinator • A new faculty orientation program • Support for travel to workshops • Support for special incentives for excellence in teaching • Develop and implement a communications network to exchange information and ideas concerning FD • Plans for adding teaching innovations and educational research activities to the promotion and tenure portfolio 	<ul style="list-style-type: none"> • University FD program • Brown bag discussion group on teaching • FD Coordinator • A new faculty orientation program • Support for travel to workshops
Year 10	<ul style="list-style-type: none"> • FD Coordinator • A new faculty orientation program • Support for travel to workshops • Support for special incentives for excellence in teaching 	<ul style="list-style-type: none"> • University FD program • Brown bag discussion group on teaching • FD Coordinator • A new faculty orientation program • Support for travel to workshops • Support for special incentives for excellence in teaching • Presentation to COE faculty the plan for adding teaching innovations and educational research activities to the promotion and tenure portfolio
Year 11		<ul style="list-style-type: none"> • University FD program • Brown bag discussion group on teaching • FD Coordinator • A new faculty orientation program • Support for travel to workshops • Support for special incentives for excellence in teaching

NC A&T CIT Outcomes Assessment Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	<ul style="list-style-type: none"> - Outcomes Assessment Workshop - Distribute OA Planning Guide (hard copy and on WWW) 	<ul style="list-style-type: none"> - Organization of a college-wide OA Committee - Regular meetings of OA Committee to discuss OA issues - Seminars on OA and Assessment Tools - Review program objectives
Year 7	<ul style="list-style-type: none"> - Outcomes Assessment Workshop - Curriculum Renewal based on OA Workshop - Develop procedure for seeking stakeholder input - Provide example set of program outcomes - Investigate assessment tools and instruments - Seminar on assessment tools - Guidance on developing rubrics for assessment - Present seminar on SUCCEED's model for Curriculum Renewal based on OA 	<ul style="list-style-type: none"> - Appointment of OA Director for COE - Regular meetings of OA Committee to discuss OA issues - Seminars on OA and Assessment Tools - Selected faculty members undergo ABET EC 2000 Training course - Develop assessment schedule - when, who is responsible - Develop rubrics for assessment
Year 8	<ul style="list-style-type: none"> - Seminar on assessment tools - Guidance on developing OA rubrics - Assist programs in summarizing and interpreting assessment data - Present seminar on SUCCEED's model for Curriculum Renewal based on OA - Develop NCA&T's model for Curriculum Renewal - Share NCA&T's model for Curriculum Renewal with COE members - Assist COE programs in applying Curriculum Renewal Model 	<ul style="list-style-type: none"> - Regular meetings of OA Committee to discuss OA issues - Seminars on OA and Assessment Tools - Stakeholder feedback - Revise program objectives based on stakeholder input, institutional mission - Establish program outcomes - Improve on rubrics for assessment - Perform one cycle of data collection
Year 9	<ul style="list-style-type: none"> - Assist programs in summarizing and interpreting assessment data - Share NCA&T's model for Curriculum Renewal with COE members - Assist COE programs in applying Curriculum Renewal Model 	<ul style="list-style-type: none"> - Regular meetings of OA Committee to discuss OA issues - Stakeholder feedback - Revise program objectives based on stakeholder input, institutional mission - Perform one cycle of data collection
Year 10	<ul style="list-style-type: none"> - Assist programs in summarizing and interpreting assessment data - Assist COE programs in applying Curriculum Renewal Model 	<ul style="list-style-type: none"> - Regular meetings of OA Committee - Stakeholder feedback - Revise program objectives based on stakeholder input, institutional mission - Perform one cycle of data collection
Year 11		<ul style="list-style-type: none"> - Continue processes from Year 10 - Assist programs in summarizing and interpreting assessment data - Assist COE programs in applying Curriculum Renewal Model

NC A&T CIT Student Transitions Institutionalization Timetable

	SUCCEED- Supported Activity	<u>University/College/Department/ External Agencies Support</u>
Year 6	Orientation & Planning of ST Focus Summer Internships	<u>Summer ESP Program</u>
Year 7	VISIONS Freshman Orientation ESP Summer Enrichment Program ALVA program Establish Teacher Intern Program (TIP) Student Prof. Development (AGGIENEER Workshops) Pilot Dual-degree transition program ST Program Coordinator	<u>VISIONS Support</u> ESP Summer Enrichment Program ALVA program AGGIENEER Workshops Teacher Intern Program (TIP) Pilot Dual-degree transition program Mentoring & Tutorial Programs
Year 8	VISIONS Freshman Orientation ALVA program Establish an AISES Chapter Expand Teacher Intern Program (TIP) AGGIENEER Workshops Initiate "Product Test and Design Center (PTDC)" Enhance Mentoring & Tutorial Programs ST Program Coordinator	VISIONS Support ESP Summer Enrichment Program ALVA program Teacher Intern Program (TIP) AGGIENEER Workshops Dual-degree transition program Mentoring & Tutorial Programs
Year 9	ALVA program Expand Teacher Intern Program (TIP) AGGIENEER Workshops Continue to establish PTDC ST Program Coordinator	VISIONS Freshman Orientation ESP Summer Program ALVA program Teacher Intern Program (TIP) AGGIENEER Workshops Dual-degree transition program Mentoring & Tutorial Programs PTDC
Year 10	ALVA program Teacher Intern Program (TIP) AGGIENEER Workshops Continue to establish PTDC ST Program Coordinator	ESP Summer Program ALVA program Teacher Intern Program (TIP) AGGIENEER Workshops Dual-degree transition program Mentoring & Tutorial Programs PTDC
Year 11		ESP Summer Program ALVA program Teacher Intern Program (TIP) AGGIENEER Workshops Dual-degree transition program Mentoring & Tutorial Programs PTDC ST Program Coordinator

NC A&T CIT Technology-Based Curriculum Delivery Institutionalization Timetable

	SUCCEED-sponsored Activity	College- or Department-sponsored Activity
Year 6	Assess faculty needs	University-level Academic Computing position created Develop Collaborative Learning Environment (CLE)
Year 7	Develop faculty support group Faculty training Evaluate tools Develop Templates & Toolbox for faculty Develop assessment tools	Education Technology Coordinator hired Distance Learning Technologies explored
Year 8	Develop CLE training Evaluate Tools—Course administration & ALN	Develop technology assisted courses Train faculty on use of tools Enhance the classroom infrastructure Facilitate faculty administration of courses
Year 9	Develop support for standard tools—faculty and students Evaluate/ Implement streaming technologies	Implement infrastructure support for web-based/ Internet-based curriculum delivery. Evaluate impact of student computer ownership Provide College of Engineering TBCD Laboratory
Year 10	Generate library of content Generate standard, on-line assessment tools.	15% faculty use CLE in courses Establish streaming media server Faculty training Evaluate new tools Generate on-line faculty help for tools
Year 11		Faculty training Distance learning evaluated Tools developed/ evaluated Laboratory upgraded

North Carolina State University CIT Strategic Plan Overview

Vision Beyond SUCCEED

NC State University's vision for Year 10 and beyond in each of the four focus areas of SUCCEED can be characterized as follows:

- *Faculty Development.* NC State will have a comprehensive faculty development program that is fully supported by the University, the College of Engineering, and COE departments. All faculty will have access to the program and be encouraged to participate in its activities.
- *Outcomes Assessment.* NC State will have a comprehensive assessment plan for continuous improvement for each of its academic programs. Our goal is to have one set of procedures that meets both internal and external needs.
- *Student Transitions.* NC State will provide a wide range of programs to assist all students with transitions to campus, during their academic programs, and into the workforce or graduate school.
- *Technology-Based Curriculum Delivery.* NC State will have in place an infrastructure which builds upon and leverages existing college and university information technology infrastructure and resources; is scalable such that it can grow as faculty and student demand grows, is robust and maintainable, and is easy to use by both faculty and students.

Over-Arching Strategy

The strategic plans, objectives and assessment targets for the four focus areas are outlined in the four individual plans. Although they vary in focus, they have several common elements. Each plan:

- builds upon on-going and related efforts at NC State;
- describes activities that occur at least once per year; and
- integrate a broad base of faculty in sponsored activities

Significant Accomplishments in Year 7

Faculty Development

- Presented "Teaching Effectiveness Refresher Workshop" for 24 COE faculty participants.
- Held two workshops, "Communication Styles: Implications for the Classroom," presented by Dr. Alisha Waller, and, "Journeys of Women in Science and Engineering," led by Dr. Susan Ambrose.
- Presented "Orientation to Teaching Workshop" for graduate students and new faculty.
- Started a monthly lunchtime teaching discussion group called COE-Teach. Topics included starting the semester effectively, ABET EC 2000 and its implications for the classroom, and making teamwork more effective.

Outcomes Assessment

- Development of new Electrical Engineering and Computer Engineering curricula. ECE department faculty approved the curricula in August 1998.
- Nine departments have identified assessment coordinators. The coordinators will form the Outcomes Assessment Team for the College.
- The first draft of an assessment survey for industry interviewers has been developed. The University Career Center has agreed to distribute the survey during Fall 1999.

Student Transitions

- Implemented a new Introduction to Engineering Problem Solving course with laboratory for all new freshmen engineers (1134 students).
- Undergraduate student leaders used as mentors in all laboratories in Introduction to Engineering.
- Initiation of peer and e-mail mentoring program for women engineering students
- Leveraged prior SUCCEED support to gain a new grant from industry to expand peer mentoring and establish a new university center for Minority Student Development.

Technology-Based Curriculum Delivery

- NC State collaborated with UNC Charlotte, NC A&T, and UNC Asheville to continue development of a common web-based video teleconferencing system (MBONE) to enhance communication/collaboration on-campus and for distance-based course offerings.
- Deployed web-based MBONE video conferencing technology to UNC Wilmington and Lenoir Community College.
- Established working group for architecture and implementation of NCSU Web course delivery framework that leverages existing Eos infrastructure.
- Web-based versions of four engineering courses were offered using Mbone technology during 1998-99. Sites receiving courses included: UNC Asheville, UNC Wilmington and Lenoir Community College.

Significant Accomplishments in Year 8

Faculty Development

- Presented a "Mentoring Workshop" for 20 COE department heads, administrators, and senior faculty. At the suggestion of the department heads, a new weeklong orientation workshop is being developed for new faculty.
- Compilation of incentives and rewards for teaching and mentoring distributed to Mentoring Workshop attendees.
- Hosted COE-Teach, lunchtime discussions group on teaching. Participation included 34 faculty representing all departments in the College.
- Close ties established with university wide faculty center for Teaching and Learning (FCTL). Dr. Richard Felder served on the advisory board and assists the director with planning new faculty workshops.
- Presented "Orientation to Teaching Workshop" to 30 graduate students and 10 faculty. Scheduled again for August 2000, in coordination with FCTL.
- Two teaching leaders trained (Dr. Jim Nau and Dr. Tim Clapp) to assist in workshop presentations.
- Hosting "Teaching with Technology in the College of Engineering" one-day special topic workshop in April 2000. Dr. Tom Miller is coordinating workshop development and presentation.
- Presenting new weeklong orientation workshop in August 2000 for new faculty.

Outcomes Assessment

- Initiated new Electrical Engineering and Computer Engineering curricula in Fall 1999.
- ABET EC 2000/Outcomes Assessment Team established for the College. Committee met monthly. Topics of discuss included: development of educational objectives, operational plan process, survey data, student portfolios.

- Program assessment processes established for each undergraduate program. Educational objectives for all 14 degree programs to be defined by May 2000.
- An assessment survey for industry interviewers developed and deployed during fall and spring semesters through the University Career Center. Data analysis underway.
- Graduating senior and alumni surveys deployed with new College of Engineering inserts. Data analysis underway.
- University-wide and college-wide honor's programs established.

Student Transitions

- Implemented Introduction to Engineering Problem Solving course with laboratory for all new freshmen engineers (1102 students). Added new honor's option for University Scholars students.
- Created a lab manual for Introduction to Engineering Problem Solving course.
- Undergraduate student leaders used as mentors in all laboratories in Introduction to Engineering.
- First semester retention rates for Fall'99 was 91.5% for new freshmen.
- Continued peer and e-mail mentoring program for women engineering students
- Leveraged prior SUCCEED support to gain a new funding to support recruiting and retention initiatives and Programs for Minorities and Women. BP Amoco Minority Engineering Recruiting and Retention Initiative, \$150,000, 1999.
- Leveraged previous SUCCEED efforts to gain new funding attract and prepare students, especially women and minorities, for faculty positions in engineering and computer science. General Electric Foundation Faculty for the Future Program, \$150,000, 1999.
- Leveraged previous SUCCEED efforts to gain new funding to develop curriculum that will encourage diverse populations of students with a variety of learning styles to study science and mathematics. NSF Teaching Fellows in Elementary Education Program, joint with Duke University, \$273,027, 1999.

Technology-Based Curriculum Delivery

- NC State collaborated with UNC Charlotte, NC A&T, and UNC Asheville to deploy a common web-based video teleconferencing system to enhance communication/collaboration on-campus and for distance-based course offerings.
- Web-based versions of eight courses delivered from NC State, UNC Charlotte, and UNC Asheville to UNC Asheville, UNC Wilmington, and Lenoir Community College during 1999-2000.
- Working group effort continued for architecture and implementation of NCSU Web course delivery framework that leverages existing Eos infrastructure. Effort coordinated with university-wide initiatives.
- Hosting "Teaching with Technology in the College of Engineering" one-day special topic workshop in April 2000. Dr. Tom Miller is coordinating workshop development and presentation.

NC State CIT Faculty Development Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	<ul style="list-style-type: none"> - Orientation to Teaching Workshop - Support for professional development - FD Coordinator for COE 	<ul style="list-style-type: none"> - One teaching workshop (2.5 day general)
Year 7	<ul style="list-style-type: none"> - COE-Teach (lunchtime discussion) - Topical workshop - Support for professional development - FD Coordinator for COE 	<ul style="list-style-type: none"> - One teaching workshop (1-day refresher) - Orientation to Teaching Workshop
Year 8	<ul style="list-style-type: none"> - Mentorship programs - Support for professional development - Support for course/curriculum change - FD Coordinator for COE 	<ul style="list-style-type: none"> - Assignment of administrative responsibility for FD - One teaching workshop (topical) - Orientation to Teaching Workshop - COE-Teach - Development of uniform teaching assessment & evaluation procedure
Year 9	<ul style="list-style-type: none"> - Mentorship programs - Support for professional development - Support for course/curriculum change - FD Coordinator for COE 	<ul style="list-style-type: none"> - One teaching workshop - New Faculty Orientation Workshop - COE-Teach - FD Coordinator for COE - Implementation of uniform teaching assessment & evaluation procedure
Year 10	<ul style="list-style-type: none"> - Mentorship programs - Support for course/curriculum change - FD Coordinator for COE 	<ul style="list-style-type: none"> - General teaching workshop - Orientation to Teaching Workshop - COE-Teach - FD Coordinator for COE - Topical workshop - Increased support for professional development (dept. level) - Support for course/curriculum change - Incorporation of teaching assessment & evaluation procedure in review processes for promotion, tenure, and raises
Year 11		<ul style="list-style-type: none"> - General teaching workshop - Orientation to Teaching Workshop - COE-Teach - FD Coordinator for COE - Topical workshop - Mentorship programs - Increased support for professional development (dept. level) - Support for course/curriculum change - Incorporation of teaching assessment & evaluation procedure in review processes for promotion, tenure, and raises

NC State CIT Outcomes Assessment Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	<ul style="list-style-type: none"> - Initiate ECE Curriculum Renewal(CR) - Support faculty attending workshops on CR and OA - Assist other departments with curricular renewal - Update graduating senior and alumni surveys to better reflect ABET EC2000 - Work with CFT to achieve SUCCEED goals 	<ul style="list-style-type: none"> - ECE Curriculum Renewal - Support Employer Meetings - Support ECE Alumni Survey
Year 7	<ul style="list-style-type: none"> - Topical workshop on OA in COE Teach - Workshop for faculty on CR and use of the manual - Review and update employer survey - Work with OA CFT to establish coalition-wide assessment tools - Support faculty attending OA CFT workshops - Initiate the design of COE and ECE Honors Program - Complete the design of ECE BS/MS Program 	<ul style="list-style-type: none"> - Continue ECE Curriculum Renewal - Obtain faculty support for new ECE Curriculum - Conduct updated Sophomore, Graduating Senior, Alumni and Employer Surveys - Establish college-wide OA team with representation from each department - Topical workshops on Outcomes Assessment as requested by departments
Year 8	<ul style="list-style-type: none"> - Work with CFT on the development of new OA tools - Support faculty attending national and regional OA workshops/conferences - Provide assistance to departments on OA & CR through bimonthly meetings of OA Team - Workshop for departmental OA Team - Complete design of COE and ECE Honors Program - Survey faculty to determine level of understanding of and involvement with assessment issues - Develop methodology for reporting college assessment process and feedback to stakeholders - Support new ECE curriculum implementation 	<ul style="list-style-type: none"> - Document current OA methods in COE - Assist departments in setting up a process for continuous oversight of CR/OA process - Assist departmental OA coordinators in developing assessments plans - Review feedback from Sophomore, Graduating Senior, Alumni and Employer Surveys - Conduct Sophomore and Graduating Senior Surveys - Promote faculty buy-in & support for OA and CR - Evaluate progress in achieving our objectives
Year 9	<ul style="list-style-type: none"> - Work with OA CFT on the development and deployment of new OA tools - Support faculty attending national and regional OA workshops/conferences - Workshop for faculty and staff - topic determined by survey feedback - Develop quality guidelines for the college for assessing success of students in the college 	<ul style="list-style-type: none"> - Develop a method for institutionalizing OA systems - Develop a method for institutionalizing OA feedback to stakeholders into the CR process - Review feedback from Sophomore, Graduating Senior, Alumni, and Employer Surveys - Conduct Sophomore and Senior Surveys - Identify needs for OA person in departments - Implement uniform teaching assessment & evaluation procedure - Provide assistance to departments for course/curriculum continuous improvement - Evaluate progress in achieving our objectives
Year 10	<ul style="list-style-type: none"> - Work with OA CFT on the development and deployment of new OA tools - Support faculty attending national and regional OA workshops/conferences - Workshop for faculty and/or staff 	<ul style="list-style-type: none"> - Institutionalize OA systems and process for feedback to stakeholders - Review feedback from Sophomore and Graduating Senior Surveys - Conduct Sophomore, Graduating Senior and Alumni Surveys - Provide support for departmental OA persons to continue course/curriculum continuous improvement - Evaluate progress in achieving our objectives
Year 11		<ul style="list-style-type: none"> - Maintain and refine the OA and CR system developed under SUCCEED. - Review feedback from Sophomore and Graduating Senior Surveys - Conduct Sophomore and Graduating Senior Surveys - Evaluate progress in achieving our objectives

NC State CIT Student Transitions Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	<ul style="list-style-type: none"> - Summer Transition Program (STP) - Minority mentoring program (START) - Scale-up of Introduction to Engineering course to 250 students - Participation in climate survey - Identification of ongoing multidisciplinary design opportunities - Support for attending Workshops on ST 	<ul style="list-style-type: none"> - Summer Transition Program (STP) - Minority mentoring program (START) - Establishment of Women in Engineering Program - Scale-up of Introduction to Engineering course - Support of multidisciplinary design courses
Year 7	<ul style="list-style-type: none"> - Summer Transition Program (STP) - Expansion of minority mentoring program (START) - Scale-up of Introduction to Engineering course to 1100 students - Initiation of mentoring program for female students, Women Engineers Networking Together, WENT - Initiation of transition weekend program for female students - Evaluation of report from climate survey - Identify obstacles that transfer students experience - Develop strategy for writing and speaking across the curriculum - Identify strategies for encouraging multidisciplinary design - Programmatic assessment - Reconstitute National Advisory Board for minority engineering - Encourage international partnerships 	<ul style="list-style-type: none"> - Summer Transition Program (STP) - Minority mentoring program (START) - Scale-up of Introduction to Engineering course - Remodel/equip laboratories for freshman course - Support of multidisciplinary design courses - Women in Engineering program - Development of a strategy for writing and speaking across the curriculum - Reconstitute National Advisory Board for minority engineering program.
Year 8	<ul style="list-style-type: none"> - Minority mentoring program (START) - Women Engineers Networking Together, WENT - Introduction to Engineering course to 1100 students - Writing and speaking across the curriculum - Development of a model for encouraging/supporting multidisciplinary design courses - Expand leadership opportunities with student engineering leaders (SEL) in first year laboratory courses. - Fall minority engineering scholars reception. 	<ul style="list-style-type: none"> - Summer Transition Program (STP) - Minority mentoring program (START) - Women in Engineering program - Women Engineers Networking Together, WENT - Introduction to Engineering course to 1100 students - Writing and speaking across the curriculum - Enhance transfer student transition programs - Fall minority engineering scholars reception. - Programmatic assessment
Year 9	<ul style="list-style-type: none"> - Minority mentoring program (START) - Writing and speaking across the curriculum - Support for multidisciplinary design courses - Fall minority engineering scholars reception - Enhance transfer student transition programs 	<ul style="list-style-type: none"> - Summer Transition Program (STP) - Minority mentoring program (START) - Women in Engineering program - Women Engineers Networking Together, WENT - Introduction to Engineering course to 1100 students - Writing and speaking across the curriculum - Fall minority engineering scholars reception. - Programmatic assessment
Year 10	<ul style="list-style-type: none"> - Writing and speaking across the curriculum - Support for multidisciplinary design courses 	<ul style="list-style-type: none"> - Summer Transition Program (STP) - Minority mentoring program (START) - Women in Engineering program - Women Engineers Networking Together, WENT - Introduction to Engineering course to 1100 students - Writing and speaking across the curriculum - Support for multidisciplinary design courses - Enhance transfer student transition programs - Fall minority engineering scholars reception. - Programmatic assessment
Year 11		<ul style="list-style-type: none"> - Summer Transition Program (STP) - Minority mentoring program (START) - Women in Engineering program - Women Engineers Networking Together, WENT - Introduction to Engineering course to 1100 students - Writing and speaking across the curriculum - Support for multidisciplinary design courses - Enhance programs for transfer students to ease transition into the university - Fall minority engineering scholars reception. - Programmatic assessment

NC State CIT Technology-Based Curriculum Delivery Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	<ul style="list-style-type: none"> - Assist with development of a coalition-wide web-based conferencing system. - Enhance faculty's ability to incorporate use of WWW-based course materials - Prepare suitable materials to tie the modules into the respective course plans. - Scale-up internet-based engineering course offerings. - Continue to put into place the technology/infrastructure to encourage course sharing. 	<ul style="list-style-type: none"> - NC State collaborated with UNC Charlotte, NC A&T, and UNC Asheville to establish common web-based video teleconferencing system (MBONE) to enhance communication/collaboration on-campus and for distance-based course offerings. - Shared web-based MBONE video conferencing technology with UNC Wilmington and Lenoir Community College.
Year 7	<ul style="list-style-type: none"> - Participate in TBCD CFT - Enhance student-teacher and student-student collaboration using network-based environments. - Enhance faculty's ability to incorporate use of web-based course materials by coordinating the acquisition and deployment of an integrated set of supportable tools and guidelines. - Expand distance-based course offerings and course sharing to selected four-year campuses and community colleges. - Continue to put into place the technology / infrastructure to encourage course sharing. 	<ul style="list-style-type: none"> - Work with new NC State Center for Learning Technology to provide faculty training and assistance programs. - Continue to scale-up internet-based engineering course offerings.
Year 8	<ul style="list-style-type: none"> - Participate in TBCD CFT - TBCD workshop - Student support for standard framework implementation - Student support for NCSU TBCD resource documentation and dissemination - HW/SW support for TBCD tools evaluation - Begin ViMS integration into standard framework 	<ul style="list-style-type: none"> - Staff support for framework implementation - Student/faculty/staff support for TBCD distance education course offerings - Begin MBone Virtual Classroom dissemination
Year 9	<ul style="list-style-type: none"> - Participate in TBCD CFT - Student support for standard framework implementation and tools integration - HW/SW support for tools integration 	<ul style="list-style-type: none"> - Staff support for framework implementation and user support - Student/faculty/staff support for TBCD distance education course offerings - Virtual Classroom dissemination
Year 10	<ul style="list-style-type: none"> - Student support for standard framework completion and documentation - HW/SW for framework testing and support - Student support for TBCD cost/benefit analysis 	<ul style="list-style-type: none"> - TBCD Workshop - Staff support for framework completion, documentation, and user support - Student/faculty/staff support for TBCD distance education course offerings - Virtual Classroom dissemination - Staff support for TBCD cost/benefit analysis
Year 11		<ul style="list-style-type: none"> - Staff for user support - Student/faculty/staff support for distance education course offerings - Mbone Virtual Classroom dissemination

University of Florida CIT Strategic Plan Overview

Vision Beyond Succeed

Faculty Development:

- Fully integrated and sustainable New Faculty Orientation and Faculty Peer Mentoring..
- Institutionalized Faculty Development Workshops in the COE. Effective Teaching
- Continuing seminar series of topics of interest an importance to the engineering faculty.
- Fully developed Faculty Incentive and Rewards Program.
- Faculty Interchange and Communication network fully established.

Outcomes Assessment:

- To establish a process of continuous quality-based curriculum development and improvement for the departments in the College of Engineering, using curriculum renewal and effective outcomes assessment tools

Student Transitions:

- The University of Florida will have available a broad array of programs to assist all students with transitions to campus including freshmen and community college transfers, during their academic programs, and to their post-graduation careers

Technology-Based Curriculum Delivery:

- Provide a supportive faculty training program in conjunction with COE/SUCCEED faculty development efforts
- Promote widespread use of the WWW in all engineering courses – at least providing online course information, some course materials, and a class mailing list with archiving support
- Making up-to-date computing platforms and software tools available to faculty, and refreshing that technology on a regular and timely basis.
- Maintaining adequate infrastructure support at the Department, College and University levels

Over-Arching Strategies

SUCCEED's focus areas are complementary to the strategic plans for the College of Engineering and will be implemented in a manner consistent with overall College directions and priorities.

- Leverage the successful UF and other SUCCEED projects for institutionalization at UF
- Identify existing organizations at UF with which we can collaborate to effect institutionalization
- Identify key components of SUCCEED which fit into the broader strategic plan for the college of engineering and seek administrative and departmental support for these.

Significant Accomplishments

Faculty Development

- Introduced a new College-wide Faculty Orientation Program
 - Effective Teaching Workbook and CD developed
 - College of Engineering Faculty Development web page
- Initiated Partnership with Center for Excellence in Teaching
- Created faculty development Web Site for the College of Engineering

- Developed and piloted the distribution of Excellence in Teaching CD

Outcomes Assessment

- 10 of our 12 departments have participated in project to test outcomes assessment methods and procedures
 - Methods included student portfolios, alumni, employer and graduating student surveys
 - Establishment of industry focus groups

Student Transitions

- *IPPD* program has been extremely successful in providing students with an insight into real industrial problems and means to solve them. The program is currently running at its maximum capacity (around 23 projects)
- *STEPUP* program for incoming freshmen shows improved minority retention and is almost ready for institutionalization
- *Community College Interface* program expanded to accommodate nearly a half of incoming CC transfer students while maintaining the program success in terms of improved retention and is ready for institutionalization

Technology-Based Curriculum Delivery

- Promoted widespread usage of the WWW-based teaching for on-campus and off-campus students
 - 4 undergraduate courses entirely online using streaming video and audio in ALN
- Establishment of ISDN video conferencing
- Streaming Media Facility – established for College of Engineering

UF CIT Faculty Development Institutionalization Timetable

Timetable	SUCCEED-sponsored activity	Univ./Coll./Dept. activity
Year 6 (97-98)	<ul style="list-style-type: none"> ▪ Faculty participating in Teaching Effectiveness Workshops ▪ New faculty orientation ▪ Organized Departmental Representatives ▪ Brown bag lunch discussions ▪ Pilot continuous evaluations ▪ FD Web Site development 	<ul style="list-style-type: none"> ▪ New Faculty Orientation ▪ Center for Excellence in Teaching ▪ Teaching Resource Center Expansion ▪ Gartner Group brought to campus
Year 7 (98-99)	<ul style="list-style-type: none"> ▪ Institutionalize Effective Teaching / other SUCCEED Workshops ▪ Continuous improvement of Web Site (interactive) ▪ Discussion Groups ▪ New faculty orientation ▪ Student evaluations ▪ Develop local seminar series ▪ Begin devel. of new workshops ▪ Documentation plan for "Good Teaching" ▪ Faculty reward system ▪ Peer mentoring ▪ Syllabus review service ▪ Test development service ▪ Multi-media support ▪ Resource planning ▪ Organize and market plan for FD 	<ul style="list-style-type: none"> ▪ Work with University resources for Seminars and Workshops ▪ Work on University, College, and Departmental support for FD activities ▪ Insure FD "Champion" in each Department ▪ Form partnership with other University resource groups.
Year 8 (99-00)	<ul style="list-style-type: none"> ▪ Pilot the projects developed in Year 7 ▪ Continuous improvement of all processes ▪ Establish organizational structure ▪ Obtain College and University funding and support 	<ul style="list-style-type: none"> ▪ Develop sustainable interaction between other campus FD providers
Year 9 (00-01)	<ul style="list-style-type: none"> ▪ Evaluation of pilot efforts ▪ Efforts to insure sustainability 	<ul style="list-style-type: none"> ▪ Institutionalization of all FD projects
Year 10 (01-02)	<ul style="list-style-type: none"> ▪ Evaluation and improvement of FD activities and processes ▪ Obtain guaranteed support for sustainability 	<ul style="list-style-type: none"> ▪ The overall plan should be incorporated into University, College and Departmental programs
Year 11 (02-03)		<ul style="list-style-type: none"> ▪ New Faculty Orientation and Annual Teaching Effectiveness Workshops

UF CIT Outcomes Assessment Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	- OA Mini-grants	-
Year 7	- OA Mini-grants	- OA Video Conference - CIT Expo
Year 8	- OA Mini-grants - CIR Mini-grants - Beta-test merged CIR/OA Manual	- Dissemination workshop(s) for OA mini-grant results – best practices - Training session for SUCCESS, a CIR software package
Year 9	- CIR Mini-grants - Document OA Mini-grant results – best practices - Test draft of CIR/OA Manual	- Dissemination workshop(s) for OA and CIR mini-grant results – best practices
Year 10	- Document CIR Mini-grant results – best practices	- Dissemination workshop(s) for OA and CIR mini-grant results – best practices
Year 11		- Integrate OA and CIR into seamless procedures for engineering program development.

UF CIT Student Transitions Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	<ul style="list-style-type: none"> - IPPD expanded to 30 projects - CC and STEPUP Integration begun 	<ul style="list-style-type: none"> - Freshman Lab – institutionalized - Partial funding of IPPD
Year 7	<ul style="list-style-type: none"> - IPPD expanded to 30 projects - CC and STEPUP fully integrated and institutionalized - Fully developed writing in engineering course to be institutionalized in year 8 	<ul style="list-style-type: none"> - Freshman Lab – institutionalized - CIT Expo - IPPD funding
Year 8	<ul style="list-style-type: none"> - Integration of Maths Physics and Chemistry - QIP adoption - Institutionalize writing course - Reduced funding for STEPUP and CC 	<ul style="list-style-type: none"> - Freshman Lab – institutionalized - IPPD funding - Community College and Stepup programs
Year 9	<ul style="list-style-type: none"> - Integration of Maths Physics and Chemistry - QIP adoption 	<ul style="list-style-type: none"> - Freshman Lab – institutionalized - IPPD funding - Community College and Stepup programs - Writing Program
Year 10	<ul style="list-style-type: none"> - Integration of Maths Physics and Chemistry - QIP adoption 	<ul style="list-style-type: none"> - Freshman Lab – institutionalized - IPPD funding - Community College and Stepup programs - Writing Program - Integrated Maths Physics Chemistry
Year 11		<ul style="list-style-type: none"> - Freshman Lab – institutionalized - IPPD funding - Community College and Stepup programs - Writing Program - Integrated Maths Physics Chemistry

UF CIT Technology-Based Curriculum Delivery Institutionalization Timetable

	SUCCEED-sponsored activity	College/Dept/University Sponsored activity
Year 8	<ul style="list-style-type: none"> • TBCD CFT workshop – send participants to Train the trainers • Student support for standard for Web-based course development • COE WebCT development and Training Server • Participate in ICEE/ASEE Conferences 	<ul style="list-style-type: none"> • Instructional Design Support for Online course development • Technology student assistance • WebCT Production Server • Host SLOAN/SUCCEED Conference at UF
Year 9	<ul style="list-style-type: none"> • Local TBCD workshop – offered in conjunction with FD workshop and Orientation to Teaching Workshop • Student support for standard for Web-based course development • COE WebCT development and Training Server • Publish results in IEEE Transactions on Education 	<ul style="list-style-type: none"> • SLOAN/State funds for Minigrants to support faculty development of WWW-based/online courses • Instructional Design Support for Online course development • Technology student assistance • WebCT Production Server
Year 10	<ul style="list-style-type: none"> • Local TBCD workshop – offered in conjunction with FD workshop and Orientation to Teaching Workshop • Student support for standard for Web-based course development • COE WebCT development and Training Server • Publish results in Journal/Conference 	<ul style="list-style-type: none"> • SLOAN/State funds for Minigrants to support faculty development of WWW-based/online courses • Instructional Design Support for Online course development • Technology student assistance • WebCT Production Server
Year 11	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • SLOAN/State funds for Minigrants to support faculty development of WWW-based/online courses • Instructional Design Support for Online course development • Technology student assistance • WebCT Production Server • Local TBCD workshop – offered in conjunction with FD workshop and Orientation to Teaching Workshop • Student support for standard for Web-based course development • COE WebCT development and Training Server • Publish results in Journal/Conference

University of North Carolina at Charlotte Strategic Plan Overview

Vision Beyond SUCCEED

Faculty Development: A strong linkage between College and University faculty development activities will be forged, along with a number of on-going activities to encourage and reward faculty for participation in improvement activities

Outcomes Assessment: Outcomes Assessment will have become integral to the College strategic planning process and will be a driver of continuous improvement in all programs. The SUCCEED outcomes assessment activities will be an integral part of the College SPART team (Strategic Planning and Assessment Resources Team)

Student Transitions: An institutionalized program to assist students with transition into, during, and from, the University will be in place. This program will encompass mentoring, tutoring, Supplemental Instruction, experiential learning, freshman engineering, recruiting, and retention efforts, and will be continuously assessed.

Technology Based Curriculum Delivery: An environment in which TBCD is common-place, faculty are engaged in the use of technology to improve instruction, and students are to utilize technology to access the delivery channels that best fit their needs will be in place.

Over-Arching Strategies

The actions and plans of the UNCC-CIT are many but there are over-arching common strategies among the four areas;

- The SUCCEED funds and expertise are linked to ongoing, College and University sponsored activities for symbiosis and continuity
- The four areas act in concert and complement each other
- The SUCCEED linkages to other schools provide a mechanism to assure compatibility and efficiency in curriculum revision and innovation

Significant Accomplishments

Faculty Development

Created UNCC Web-site for Faculty Development

Celebration of Teaching Day within the COE established

Various workshops sponsored, and attended, on Teaching Enhancements

Outcomes Assessment:

SPART Conducted improved student and faculty surveys

Facilitated "Structured Biennial Reassessment" for the College

Created "ASPIRE", a web-based program for reviewing program goals

Created "FACTS", a web-based program for recording faculty activities

Student Transitions

Expanded and improved the Mentoring/Supplemental Instruction (MAPS) program

Developed an undergraduate Professional Development Seminar series

Developed, initiated and improved a Student Transitions Database

Technology-Based Curriculum Development

Delivered courses to remote sites via MBONE

Utilized WCB discussion format to facilitate team projects in freshman courses

Installed Web Course in a Box for Faculty use

UNC-C CIT Faculty Development Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	<ul style="list-style-type: none"> - Peer-Observation of Teaching Workshop - Support for attending workshops - FD Coordinator for COE 	<ul style="list-style-type: none"> - Funding for attending workshops - Summer funding for new faculty for curriculum development
Year 7	<ul style="list-style-type: none"> - Topical workshop - Support for attending workshops - Assessment of FD activities - FD Coordinator for COE 	<ul style="list-style-type: none"> - One teaching dialogue - Funding for attending workshops - Summer funding for new faculty for curriculum development
Year 8	<ul style="list-style-type: none"> - Topical workshop - Support for attending workshops - Assessment of FD activities - Implementation of results of assessment - FD Coordinator for COE 	<ul style="list-style-type: none"> - Form Standing committee on teaching improvement - Teaching dialogue - Form teaching circles - FD college administrator identified
Year 9	<ul style="list-style-type: none"> - Topical workshop - Support for attending workshops - Assessment of FD activities - Implementation of results of assessment - FD Coordinator for COE 	<ul style="list-style-type: none"> - Teaching workshop - Teaching dialogue - Revise existing teaching assessment system
Year 10	<ul style="list-style-type: none"> - Topical workshop - Support for attending workshops - Assessment of FD activities - Implementation of results of assessment - FD Coordinator for COE 	<ul style="list-style-type: none"> - Teaching workshop - Teaching dialogue - Implement new mentoring program - Increased support for FD - Revise Faculty Mentoring Program - Implement new teaching assessment system
Year 11		<ul style="list-style-type: none"> - Teaching workshop - Teaching dialogue - Support for attending workshops - Assessment of FD activities - Additional funding for winners of the ALCOA teaching award

UNC-C CIT Outcomes Assessment Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	<ul style="list-style-type: none"> - students assistants for SPART - Link institutional Research databases to new SPART database - Send faculty to CFT-sponsored OA workshop and to present papers - Send faculty to ASEE / AAHE workshops on O/A - Support student to devel. CD ROM on Total Quality Class for docum. 	<ul style="list-style-type: none"> - hire data-base assistant director for SPART - purchase computer systems and software - refine alumni surveys - refine student surveys - refine employer surveys - refine faculty surveys - administer surveys and analyze - report survey results along with other data to departments for 1998 SBR
Year 7	<ul style="list-style-type: none"> - complete programming for ASPIRE - complete programming for FACTS - Alpha Test ASPIRE (grad student) - Alpha test FACTS (u/g students) - Summarize results of SPART surveys 	<ul style="list-style-type: none"> - develop template for ABET criterion 3 - complete draft of proposed freshman year objectives by ENGR1201/02 faculty and by each department - prepare SPART survey forms for scanner scoring - Conduct SBR's for college and all departments - develop UCC post-grad databases for college and departments - Obtain feedback on program objectives, ABET 2000, and general education learning outcomes and measures from constituencies - conduct focus groups on learning communities - Get measures for Prestige - Update retention database - Develop the FTE database - Update/upgrade new enrollment database - Develop GRE and SAT databases - Conduct SPART surveys - Report results on learning communities - Develop COM and GEI databases - Finalize program objectives, ABET 2000, and general education learning outcomes and measures (w/dept consensus) - Develop assessment process for tracking retention and graduation rate for ET distance learning program - Upgrade/update co-op 49ership database (including ABET 2000) - Upgrade/update NACE databases - Upgrade/update patent databases - Implement phase 2 of the budget management system (upgrades) - Upgrade/update alumni donations database - Upgrade/update UTA/URA/GTA/GRA database - Develop databases to track SPART survey results - Develop databases to track % of PE's - Develop databases to track % of grads in NC/SC
Year 8	<ul style="list-style-type: none"> - Beta Test ASPIRE - Revise Aspire based on Beta test - Beta Test FACTS - Revise FACTS based on Beta test - Send faculty to O/A workshops - Send faculty to O/A conferences to present papers - Participate in SUCCEED CFT Faculty Development workshop in course improvement using Outcome Assessment results 	<ul style="list-style-type: none"> - Update/upgrade FE database - Summarize COM and GEI survey and report results - Upgrade format for SPART booklet reports - Implement the electronic faculty reporting system FACTS - Implement the electronic strategic plan scorecard ASPIRE - Implement assessment processes and tools for program objectives and ABET 2000 and general education learning outcomes - Upgrade/update alumni database - Develop process for why students leave and where they go - Develop process to assess learning communities - Determine how to develop and use student portfolios for OA - Conduct round 3 of Structured Biennial Reassessments (SBR's)
Year 9	<ul style="list-style-type: none"> - Support faculty to attend O/A workshops / conferences to disseminate results Send faculty to SUCCEED CFT O/A workshop on portfolio development and mgmt. 	<ul style="list-style-type: none"> - Continue with entire SPART-facilitated data management and reporting system - Pilot student portfolio system in at least two departments - Poll college faculty on FACTS system / assess its effectiveness - Poll university faculty on ASPIRE system / assess its effectiveness

	<ul style="list-style-type: none"> - Assist in development of pilot electronic Portfolio mgmt. system 	<ul style="list-style-type: none"> - Develop / monitor data-driven improvement documentation system
Year 10	<ul style="list-style-type: none"> - Support faculty to attend O/A workshops and conferences to disseminate results in papers and workshops - Send faculty to SUCCEED CFT O/A workshop on continuous improvement of O/A systems - Assist in devel. of data driven improvement and documentation system 	<ul style="list-style-type: none"> - develop comprehensive student portfolio management system and alpha test - continue entire SPART-facilitated data management protocol - revise/improve ASPIRE - revise/improve FACTS - promote and monitor use of data-driven improvement and documentation system - Conduct Round 4 of Structured Biennial Reassessments (SBR's)
Year 11		<ul style="list-style-type: none"> - continue entire SPART-facilitated data management protocol - Beta Test comprehensive student portfolio management system - Institutionalize use of data-driven improvement and documentation system - Support faculty to attend O/A workshops and conferences to disseminate results in papers and workshops - Send another contingent of faculty to O/A workshops on continuous improvement of O/A systems

UNC-C CIT Student Transitions Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 7	<ul style="list-style-type: none"> - Conduct Best Practice Visit to Va Tech. - Conduct SUCCEED Mentoring/Bridge Workshop. - Investigate the possibility of using a College of Engineering freshman attitude survey. - Hire additional student resources for MAPS. - Develop student transitions databases. 	<ul style="list-style-type: none"> - Organize Workshop: “Designing Technical Writing Assignments for College of Engineering Students” - Organize Workshop: “Understanding and Improving Second Language Writing in the College of Engineering” - Implement upgrades to the electronic peer evaluation system used in ENGR 1201/1202 - Create a professional development seminar series using alumni and local professionals - Assign specific responsibility for recruiting and international programs assigned with COE. - Formalize and document the COE International Programs exchange process. - Implement improvements to MAPS and ENGR 1201/1202 - Investigate the possibility of purchasing NT versions of the FE and GRE - Conduct focus groups on building student learning communities. - Conduct Change of Major and Graduating Senior surveys and summarize results. - Conduct annual SPART surveys: students and faculty. - Conduct triennial SPART surveys: alumni and employers.
Year 8	<ul style="list-style-type: none"> - Send faculty to SUCCEED Student Transitions Workshop - Hire additional student resources for MAPS. - Hire students to continue to develop student transitions databases. 	<ul style="list-style-type: none"> - Develop a plan to improve advising process. - Begin developing a plan for building student learning communities and assessing their impact on retention. - Implement upgrades/enhancements to the undergraduate retention tracking system. - Continue development of the graduate student retention tracking system. - Continue developing student transitions databases. - Develop and begin implementing a comprehensive recruiting/marketing plan. - Conduct Change of Major and Graduating Senior surveys and summarize results. - Conduct annual SPART surveys: students and faculty.

Year 9	<ul style="list-style-type: none"> - Send faculty to SUCCEED Student Transitions Workshop. - Fully institutionalize student transitions databases including undergraduate and graduate retention tracking systems. 	<ul style="list-style-type: none"> - Implement assessment processes to determine the effectiveness of learning communities and their impact on retention. - Ensure linkage of student transitions databases with COE planning process. - Conduct Change of Major and Graduating Senior surveys and summarize results. - Conduct annual SPART surveys: students and faculty.
Year 10	<ul style="list-style-type: none"> - Send faculty to SUCCEED Student Transitions Workshop. - Identify and implement data driven improvement and documentation systems. 	<ul style="list-style-type: none"> - Fully institutionalize MAPS, ENGR 1201/1202, learning communities, and other student transitions databases and assessment and continuous improvement processes.
Year 11		<ul style="list-style-type: none"> - Identify and implement data driven improvement and documentation system.

UNC-C CIT Technology-Based Curriculum Delivery Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	<ul style="list-style-type: none"> - SUCCEED video conferencing facility - Internet Classroom startup equipment - Student project to investigate Internet Course delivery software 	<ul style="list-style-type: none"> - Internet Classroom space assigned, renovated, and additional equipment installed - Pilot study of web courseware management tools - Study of Courseware Management tools
Year 7	<ul style="list-style-type: none"> - Support for SUCCEED video conferencing facility - Support for sending faculty to Electronic Materials workshop - Support for sending faculty to WWW workshop - Support for sending faculty to Courseware Authoring tools workshop - Support for sending faculty to Streaming Audio and Video workshop - Student project to develop/adapt/adopt software to support MBONE technology - Study of ALN techniques - Student project to investigate the use of network collaboration products 	<ul style="list-style-type: none"> - Staff assigned to support SUCCEED video conferencing facility - Support for Internet Classroom - Delivery of Statics to UNC-Wilmington and Lenoir Community College via the Internet Classroom - Trial workshop on Courseware Management software package (WCB) - Implementation of WCB for courseware management - On-campus WWW workshop
Year 8	<ul style="list-style-type: none"> - Support for SUCCEED video conferencing facility - Support for sending faculty to TBCD workshops - Internet Classroom upgrades - - - Develop the Engineering Technology Fire Science program course delivery mechanism 	<ul style="list-style-type: none"> - Staff Support for Video conferencing facility - Internet Classroom redesign and completion - Support for Internet Classroom - Delivery of at least two courses to UNC-W, Lenoir CC, and UNC-Asheville via the Internet Classroom - Support for WCB - Implementation of Real Media server and producer software for streaming media - On-campus WCB workshop - -
Year 9	<ul style="list-style-type: none"> - Upgrade of SUCCEED video conferencing facility - Support for sending faculty to TBCD workshops - Support for SUCCEED video conferencing facility 	<ul style="list-style-type: none"> - Staff Support for Video conferencing facility - Support for Internet Classrooms - Support for WCB - Support for Real Media - Deliver Engineering 2+2 Program to remote sites - On-campus Web Coursewareworkshop - Deliver first Engineering Technology Fire Science Program courses to multiple remote sites
Year 10	<ul style="list-style-type: none"> - Support for SUCCEED video conferencing facility 	<ul style="list-style-type: none"> - Staff Support for Video conferencing facility - Support for Internet Classrooms - Support for Web Courseware - Support for Real Media - - On-campus Streaming Media workshop - On-campus Web Courseware workshop - On-campus WWW workshop - - Deliver Engineering 2+2 Program to remote sites - Deliver Engineering Technology Fire Science Program to remote sites
Year 11		<ul style="list-style-type: none"> - Support for Video conferencing facility - Support for Internet Classrooms - Support for WCB or an alternative - Support for Real Media or an alternative - On-campus Courseware workshops - On-campus multimedia workshops - Deliver Engineering 2+2 Program to remote sites - Deliver Engineering Technology Fire Science Program to remote sites

Virginia Polytechnic Institute and State University Strategic Plan Overview

VISION BEYOND SUCCEED

- *Faculty Development.* We are building an active, self-sustaining Engineering Learning Community (ELC) dedicated to faculty support and development, the continuous improvement of learning environments, and student success. SUCCEED has formed a partnership with the University Center for Excellence in Undergraduate Teaching (CEUT). The core members of ELC are participants of Felder/Brent Teaching Leader Workshops and the director of CEUT.

CEUT provides support for practically every aspect of teaching and learning, from special workshops for graduate teaching assistants and new faculty to seminars on teaching large classes and faculty study groups. The SUCCEED-CEUT partnership will be transformed into an Engineering-CEUT partnership.

- *Outcomes Assessment.* The new ABET EC 2000 requirements are a learning process for the entire engineering community. We must use assessment results as input to curriculum renewal. Our vision is full accreditation for all degree programs at our next accreditation review. SUCCEED will have been the catalyst for adopting and adapting best practices in outcomes assessment and curriculum renewal processes.
- *Student Transitions.* Our student transitions program is at the heart of SUCCEED's mission as an agent of change: "...to develop, implement, evaluate, and disseminate new, more effective models of engineering education and to change the academic culture in ways that will support the new models..." (John Prados, *The Innovator*, Fall 1995). The transition program focuses on the three stages of a student's experience: transition into college, personal and professional development in college, and transition to the workplace. The Dean of the College of Engineering has been an active supporter of SUCCEED's mission.
- *Technology-Based Curriculum Delivery.* The goal is to extend the reach and effectiveness of engineering education through the use of advanced computing and communication technologies. We are developing a partnership with the University's Faculty Development Institute (FDI). The primary goal of FDI is to provide faculty the opportunity to rethink methods and improve teaching and learning through the use of technology. The FDI presents a four-day workshop in the summer, which is followed during the academic year by twenty discipline-specific workshops on advanced topics. The FDI received the Hesburgh Award for successful, innovative faculty development programs. The Engineering-FDI partnership will carry on the function of TBCD.

OVER-ARCHING STRATEGIES

The mission of our Campus Implementation Team (CIT) is to promote the adaptation and implementation of the SUCCEED curriculum model, a systems model for education (Fig. 1), in the unique environment of Virginia Tech. In addition we will draw guidelines from other sources, such as other NSF coalitions, educational research, and innovative learning environments, to foster student success in college, in the workplace, and in their own lives.

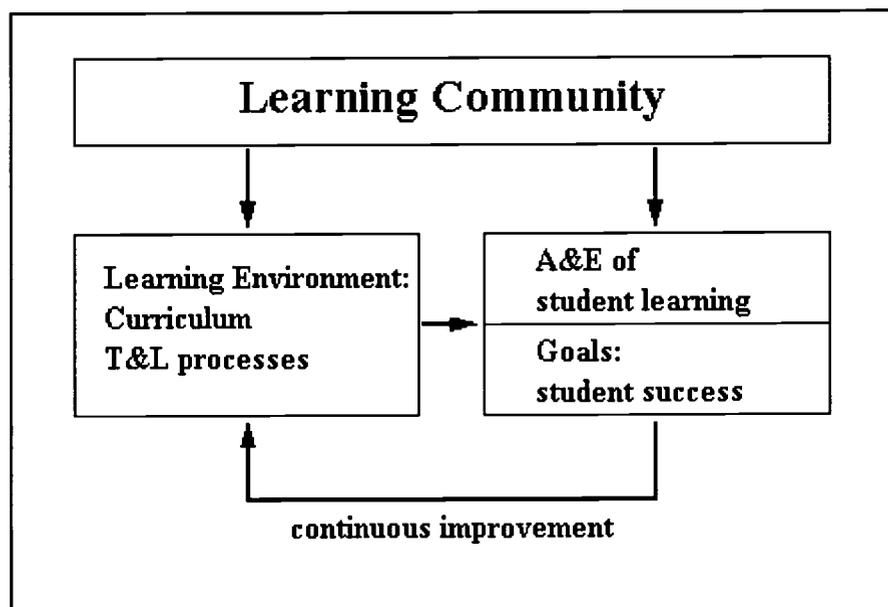


Figure 1. Systems model for education

Significant Accomplishments Y8

• Faculty Development

- SUCCEED has formed a partnership with the University Center for Excellence in Undergraduate Teaching (CEUT) to leverage faculty development activities. CEUT provides support for practically every aspect of teaching and learning, from special workshops for graduate teaching assistants and new faculty to seminars on teaching large classes and faculty study groups (www.ceut.vt.edu).
- Three workshops were held (98 participants) and two more will take place.
- Two faculty networking meetings were held (54 participants) and one more will take place.
- In addition faculty members attended FDI and CEUT workshops, meetings, and study groups.

- **Outcomes Assessment**

- Conducted OA planning workshop for degree programs.
- Designed a programmatic set of templates (adopted as a best practice for OA CFT workshops) to work through steps in the outcomes assessment process--all degree programs involved in meeting deadlines for each step.
- Sent faculty participants to SUCCEED OA workshops.
- ME curriculum renewal based on SUCCEED curriculum model is completed.
- The focus of education is on engineering applications; students at the sophomore level are already engaged in engineering projects that used to be limited to seniors.
- 70% of all students are involved in multidisciplinary capstone design projects; the goal is 100%.
- The following departments have completed one cycle of curriculum renewal: EcpE, MSE, Mining, ChE.

- **Student Transitions**

The SUCCEED mission has been advanced through the following student transitions activities and pilot courses involving approximately 1500 students.

- First year transitioning and mentoring programs (ongoing)
- SUCCEED ESP-Calculus (ongoing)
- Virtual Corporations (institutionalized)
- ESP-Statics (ongoing)
- Infrastructure Assessment and Rehabilitation Design (institutionalized)
- Integrated Building Design (ongoing)
- Workplace Transitioning (ongoing)
- Mechatronics Education (ongoing)
- Biological Systems Engineering (ongoing)
- Introductory Engineering Lab (ongoing)
- Early Engineering Design (ongoing)

Technology-Based Curriculum Delivery

Advanced computing and communication technologies are integrated into the curriculum through the following tasks.

- **Multimedia Statics (ongoing)**
- Technology Infusion
- Multimedia Microelectronics
- Master Technology Teacher Training
- **Internet-based Education**
- Technology Production Assistance

Virginia Tech Faculty Development Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
YEAR 6	<ul style="list-style-type: none"> • Participation of Virginia Tech faculty and students in coalition-wide activities: Effective Teaching Workshop, Atlanta; Student Success Workshop, Charlotte; Multidisciplinary Design Workshop, Charlotte; Posters Display of Pilot Courses at Virginia Tech; Effective Teaching Workshop, Raleigh: 3 teaching leaders; Orientation to Teaching Workshop, Raleigh. • Seminars, workshops, and activities by Virginia Tech Faculty: Changing the Culture of Education Instructional, Technology: Best Practices in Science and Engineering, Multidisciplinary Design Projects, Multimedia Learning Environments, Orientation to Teaching, Active Learning with Multimedia, Internet-Based Instructional Methods. • CIT hosted seminars and workshops by SUCCEED PI's to motivate our faculty to form teams and teach pilot courses based on SUCCEED curriculum models. Presenters: Tom Miller (NC State, Dave Ollis (NC State), Sarah Rajala (NC State, Richard Felder and Rebecca Brent (NC State, Jack Elzinga (University of Florida), Michael Leonard (Clemson University), and Donald Beasley (Clemson University) • 6 pilot courses based on the SUCCEED curriculum model were taught in year 6. 	<ul style="list-style-type: none"> • Orientation to Teaching Workshop • New Engineering Faculty Familiarization Program: 8 sessions during academic year • CEUT activities: workshops for faculty and graduate assistants, faculty study groups, Instructional Enhancement Grants • FDI Three -Day Summer Workshop, twenty discipline-specific workshops, Instructional Technology Conference, and courseware development support • CIL Course Development Grants • Provost's Student Success Grants
Year 7	<ul style="list-style-type: none"> • 2 SUCCEED-CEUT FD workshops • FD-TBCD workshop • 4 Follow-up faculty networking meetings • Mentoring Faculty Support workshop 	<ul style="list-style-type: none"> • COE New Engineering Faculty Familiarization Program: 8 sessions during academic year • CEUT activities: workshops for faculty and graduate assistants, faculty study groups, brown-bag meetings, Instructional Enhancement Grants • FDI Three-Day Summer Workshop, twenty discipline-specific workshops, Instructional Technology Conference, and courseware development support • CIL Course Development Grants • Provost's Student Success Grants
Year 8	<ul style="list-style-type: none"> • Two SUCCEED-CEUT FD workshops • Follow-up faculty networking meetings (two per semester) • Case-Study workshop • FD-TBCD workshop • Felder/Brent Mentoring workshop 	<ul style="list-style-type: none"> • COE New Engineering Faculty Familiarization Program: 8 sessions during academic year • CEUT activities: workshops for faculty and graduate assistants, faculty study groups, brown-bag meetings, Instructional Enhancement Grants • FDI Three-Day Summer Workshop, twenty discipline-specific workshops, Instructional

		<p>Technology Conference, and courseware development support</p> <ul style="list-style-type: none"> • CIL Course Development Grants • Provost's Student Success Grants
Year 9	<ul style="list-style-type: none"> • SUCCEED-CEUT FD workshops • Follow-up faculty networking meetings (two per semester) • FD-TBCD workshop • New faculty development/mentoring programs 	<ul style="list-style-type: none"> • COE New Engineering Faculty Familiarization Program: 8 sessions during academic year • CEUT activities: workshops for faculty and graduate assistants, faculty study groups, brown-bag meetings, Instructional Enhancement Grants • FDI Three-Day Summer Workshop, twenty discipline-specific workshops, Instructional Technology Conference, and courseware development support • CIL Course Development Grants • Provost's Student Success Grants
Year 10	<ul style="list-style-type: none"> • SUCCEED-CEUT FD workshops • Follow-up faculty networking meetings (two per semester) • FD-TBCD workshop • New faculty development/mentoring programs 	<ul style="list-style-type: none"> • COE New Engineering Faculty Familiarization Program: 8 sessions during academic year • CEUT activities: workshops for faculty and graduate assistants, faculty study groups, brown-bag meetings, Instructional Enhancement Grants • FDI Three-Day Summer Workshop, twenty discipline-specific workshops, Instructional Technology Conference, and courseware development support • CIL Course Development Grants • Provost's Student Success Grants
Year 11		<ul style="list-style-type: none"> • Engineering Education Fellow • COE New Engineering Faculty Mentoring Program • Engineering-CEUT activities: workshops for faculty and graduate assistants, faculty study groups, brown-bag meetings, Instructional Enhancement Grants • Follow-up networking meetings • Engineering-FDI activities: Four-Day Summer Workshop, twenty discipline-specific workshops, Instructional Technology Conference, and courseware development support • CIL Course Development Grants • Provost's Student Success Grants • Engineering-CEUT fall workshop

Virginia Tech CIT Outcomes Assessment Institutionalization Timetable

	SUCCEED-sponsored activity	College or Dept-sponsored Activity
Year 6	Assist in OA workshop Corporate contacts	Finalize ME curriculum innovation Begin other departments: Freshman EF, EcpE, MSE, Mining, ChE
Year 7	Send faculty to OA workshops	Continue Curriculum renewal of EF and other departments Design College-wide template for OA process Attend conferences Use best practices from SUCCEED
Year 8	Participate in OA workshops Participate in Employer Feedback Participate in Portfolio Project	Collect data using templates Use data for Curriculum Innovation and Renewal of all departments
Year 9	Contribute to Dissemination of Employer Feedback and Portfolio result	Prepare for ABET Continue OA/CIR process
Year 10	Contribute to Dissemination of SUCCEED expertise	Continue OA/CIR process

Virginia Tech Student Transitions Institutionalization Timetable

	SUCCEED-sponsored activity	College or dept.-sponsored activity
Year 6	<ul style="list-style-type: none"> • SUCCEED ESP-Calculus • Virtual Corporations • Workshop Statics • Infrastructure Assessment and Rehabilitation Design • Integrated Building Design • Workplace Transitioning • Introductory Engineering Lab 	<ul style="list-style-type: none"> • SUCCEED ESP-Calculus • Virtual Corporations • Workshop Statics • Infrastructure Assessment and Rehabilitation Design • Integrated Building Design • Workplace Transitioning • Introductory Engineering Lab
Year 7	<ul style="list-style-type: none"> • SUCCEED ESP-Calculus • Virtual Corporations • Workshop Statics • Infrastructure Assessment and Rehabilitation Design • Workplace Transitioning • Biological Systems Engineering • Introductory Engineering Lab • Early Engineering Design 	<ul style="list-style-type: none"> • SUCCEED ESP-Calculus • Virtual Corporations • Workshop Statics • Infrastructure Assessment and Rehabilitation Design • Workplace Transitioning • Biological Systems Engineering • Introductory Engineering Lab • Early Engineering Design
Year 8	<ul style="list-style-type: none"> • SUCCEED ESP-Calculus • Virtual Corporations • ESP-Statics • Infrastructure Assessment and Rehabilitation Design • Workplace Transitioning • Mechatronics Education • Biological Systems Engineering • Introductory Engineering Lab • Early Engineering Design 	<ul style="list-style-type: none"> • Virtual Corporations • Infrastructure Assessment and Rehabilitation Design • Workplace Transitioning • Mentoring programs • Junior/Senior Transition Seminar Series • Continuation of Freshman Transitioning Seminar Series • Intervention Workshops for Freshman
Year 9	<ul style="list-style-type: none"> • ESP-Statics • Mechatronics Education • Introductory Engineering Lab • Early Engineering Design • Integrated Building Design • Chemical Engineering Design • Materials Engineering Design 	<ul style="list-style-type: none"> • Virtual Corporations • ESP-Statics • Infrastructure Assessment and Rehabilitation Design • Workplace Transitioning • Documentation and Dissemination of Year 8 Results • Implementation of Modules for Student Training • Expansion of Freshman Workshop

		<ul style="list-style-type: none"> • Evaluation of Problem Solving Modules for Bridge Program • Expansion of Articulation Conference
Year 10	<ul style="list-style-type: none"> • Mechanical Engineering Design • Introductory Engineering Lab • Early Engineering Design • Integrated Building Design • Chemical Engineering Design • Materials Engineering Design 	<ul style="list-style-type: none"> • Virtual Corporations • ESP-Statics • Infrastructure Assessment and Rehabilitation Design • Workplace Transitioning • Documentation and Dissemination of Year 9 Results • Conduct Advisor Training Workshop • Evaluation of Advisor Training Modules
Year 11		<ul style="list-style-type: none"> • Virtual Corporations • ESP-Statics • Infrastructure Assessment and Rehabilitation Design • Workplace Transitioning • Biological Systems Engineering • Introductory Engineering Lab • Early Engineering Design • Mechatronics Education • Assessment, Documentation, and Dissemination of Student Transitioning Activities



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