

NASA FLORIDA SPACE GRANT CONSORTIUM

# STRATEGIC GOALS & PLAN 2010-2014

### SUPPORTING NASA EDUCATION PORTFOLIO STRATEGIC FRAMEWORK

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# FSGC STRATEGIC GOALS & PLAN 2010-2014

TABLE OF CONTENTS	
Overview	PG3
EXECUTIVE SUMMARY	PG3
SUPPORTING NASA EDUCATION PORTFOLIO STRATEGIC FRAMEWORK	PG 4
FSGC VISION	PG 4
FSGC MISSION	PG 5
OUTCOME I: EMPLOY AND EDUCATE	PG 6
FELLOWSHIPS & SCHOLARSHIPS	PG 6
RESEARCH INFRASTRUCTURE	PG7
HIGHER EDUCATION	PG8
OUTCOME II: EDUCATE & ENGAGE	PG 10
Pre-College Education	PG 10
OUTCOME III: ENGAGE & INSPIRE	PG 11
Informal Education (General Public)	PG 11
External Relations	PG 12
APPENDIX A – SMART OBJECTIVES	PG 13
APPENDIX B — NASA EDUCATION OUTCOME AND OBJECTIVE HIERARCHY	PG 14
APPENDIX C – FSGC AFFILIATES	PG 16
Appendix D — Operational Plan and Assessment of Results	PG 17

#### **OVERVIEW**

The Florida Space Grant Consortium (FSGC) was formed in 1989, when NASA implemented the National Space Grant College and Fellowship Program. FSGC was one of the sixteen founding Space Grant Consortia. There is now an active Space Grant program in all fifty states, Puerto Rico and Washington, D.C.. When combined with the Land Grant and Sea Grant Programs, the Space Grant forms the final leg of a triad of federally mandated programs addressing critical national needs in education, research, and service.

The Consortium is a voluntary association of sixteen public and private Florida universities and colleges, all of Florida's community colleges, as well as the Astronaut Memorial Foundation, the Higher Education Consortium for Math & Sciences, the Kennedy Space Center, the Orlando Science Center, and Space Florida.

FSGC is administered through the University of Central Florida and the Florida Space Institute. FSGC's main office is located at the Astronaut Memorial Foundation's Center for Space Education at the north end of the Kennedy Space Center Visitor's Complex.

#### **EXECUTIVE SUMMARY**

Through its programs and partnerships, FSGC has become a vital contributor to Florida's nationally recognized initiatives to promote statewide aerospace economic and academic development. Today, FSGC is uniquely positioned to be an effective catalyst for strengthening and diversifying Florida's space industry. Over the next five years (2010-2014), FSGC intends to continue developing our strong relationships with FSGC Affiliates, the FSGC Advisory Board, and NASA as well as foster new relationships with additional partners in academia, government and industry. It is through this network of common interest partnerships that FSGC indeed has a statewide presence that reaches into classrooms, boardrooms and laboratories alike.

With unwavering commitment to: fund student participative research supporting space exploration and science; create robust public programs aiding literacy in science, technology, engineering and mathematics (STEM); recruit women, underrepresented minorities, and the disabled for STEM careers; encourage interdisciplinary education, training and public-service aerospace/space related programs; promote collaboration among universities, government and industry; and facilitate post-graduate STEM training for K-12 teachers, FSGC has an important and valuable contribution to make in Florida's future.

Briefly outlined in this document are a sampling of concrete actions (and measures to evaluate those actions) that FSGC will be implementing to contribute our part to solidifying Florida's leadership in space-related endeavors and enhancing our State's economic health and diversity.

# SUPPORTING NASA EDUCATION PORTFOLIO STRATEGIC FRAMEWORK

Since 2006, and with the guidance, leadership and consensus of the Florida Space Grant Consortium Advisory Board, FSGC has focused its programs in four main areas:

- 1. Scholarships and Fellowships
- 2. Research Programs
- 3. Undergraduate Programs
- 4. Teacher Training

In this time period (FY2006-FY2009), the FSGC has:

- Obtained nearly \$4.6M of funds (NASA Funds, Matching Funds and In-Kind Contributions)
- Funded just over \$1.7M in proposals
- Bestowed 104 undergraduate scholarships
- Awarded 16 graduate fellowships
- Involved 267 undergraduate students in collaborative space-related projects

With a track record of concrete contributions to NASA Education Outcomes, FSGC's focus will remain on the four areas outlined here as it continues to encourage cooperative interdisciplinary programs in education, research and public service in collaboration with its university members; aerospace industry supporters; Federal, Florida State and local governments; and the public.

#### FLORIDA SPACE GRANT CONSORTIUM - VISION

To lead the National Space Grant Consortia with exceptionally effective, innovative programs and activities supporting STEM education and aerospace/space/aeronautics academic-NASA-industry partnerships throughout Florida.

With the FSGC Vision providing foundational direction, FSGC will contribute to the National Space Grant Consortia by pursuing its Mission with a series of Goals and SMART Objectives.<sup>1</sup> The goals selected directly support the national goals, objectives, and Educational Outcomes and Objectives defined in the NASA Education Strategic Coordination Framework. (Please refer to Figure 1 on page 5 of this document for a graphical summary of NASA's Educational Outcomes.)

The specific Objectives which will be targeted by FSGC in the 2010-2014 timeframe are highlighted within the full text of the NASA Educational Outcome and Objective Hierarchy (provided in Appendix B) in *italic indigo font*. Additionally, for clarity and ease of reference, the corresponding NASA Objective(s) has/have been noted in the discussion of FSGC's anticipated contributions to these objectives.

#### FLORIDA SPACE GRANT CONSORTIUM - MISSION

To strengthen Florida's economy and augment NASA Educational Outcomes by:

- providing aerospace/aeronautics/space-related fellowships, scholarships, and internships;
- supporting research opportunities, and academic-NASA-industry partnerships;
- increasing awareness among community colleges about various NASA/FSGC programs and resources; and
- enhancing STEM awareness, literacy, education and excellence in Florida's citizens, public and private educational systems, and workforce.

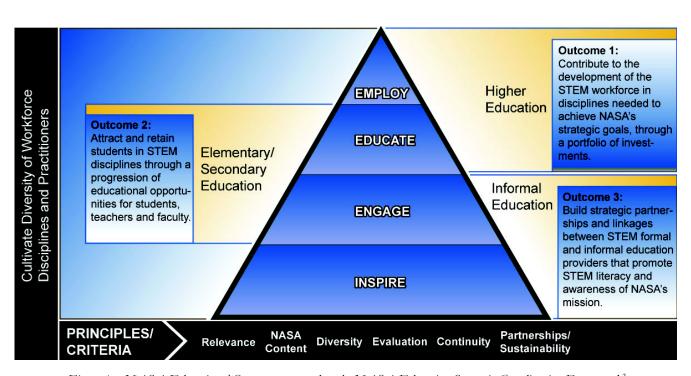


Figure 1: NASA Educational Outcomes mapped to the NASA Education Strategic Coordination Framework<sup>2</sup>

#### **OUTCOME I: EMPLOY AND EDUCATE**

Contribute to the development of STEM workforce in disciplines needed to achieve NASA's strategic goals, through a portfolio of investments.<sup>3</sup>

FSGC has organized its contributions to Outcome 1 into the following categories: Fellowships and Scholarships, Higher Education, and Research Infrastructure programs. Each category includes numbered goals followed by an intentionally brief explanation of: a. what the goal intends to achieve (SMART Objective – Please refer to Appendix A for description of usage); b. how FSGC will measure progress towards the goal (Metric(s)); c. why the achievement of this objective will positively impact the desired results (Contribution to Goal); and d. who, where and when – an sample of some of the specific supporting actions that will be taken to meet or exceed the SMART objective.

#### **FELLOWSHIPS & SCHOLARSHIPS**

- 1. Enable students to pursue careers in the space program whether through graduate, undergraduate, or Community College technical training.
- a. **SMART Objective** On an annual basis, at least 20 undergraduate and/or technical training awards and 3 graduate fellowships will be competitively awarded to students who wish to pursue space/aerospace/aeronautics training. At least six of these awards will be offered to minority candidates and at least 8 to female students. At least 70% of awardees will continue to the next step in their chosen STEM disciplines (academia/NASA/industry).
- a. **Metrics** Number of awards and fellowships granted annually by FSGC. Number of awards and fellowships granted annually by FSGC to minority candidates. Number of awardees who progress to the next step in their chosen STEM discipline.
- a. **Contribution to Goal** As more talented students pursue involvement in the space program, the deeper the field of talent will be for both NASA and the private aerospace/space industry in the United States. Greater numbers of capable, enthusiastic students involved in the space program directly and indirectly positively impact all tiers of the employ-educate-engage-inspire NASA Education Strategic Framework.

This goal positively impacts NASA Education Objectives: 1.1; 1.2; 1.3; 1.5.

a.	<b>Action Plan</b> – Actively promote award and fellowship opportunities and encourage student applications through the FSGC website, newsletter, and other official correspondence. Students receiving funding will complete a longitudinal tracking survey every six months.

- 1. Facilitate Space-Related Research Symposia for students, NSA engineers and FSGC awardees
- a. **SMART Objective** By March 2014, facilitate at least two Space-Related Research Symposia within the State of Florida that specifically target graduate student participation involving at least 12 students and 10 mentors for each symposium
- a. **Metric** Number of FSGC facilitated Space-Related Research Symposia held in Florida and attended by students.
- a. **Contribution to Goal** Providing short-duration space-related training, introduction to space-related research resources and opportunities for fellowship with like-minded individuals will contribute to greater knowledge transfer about NASA, its goals, how students can engage in the space industry and what fellowship/scholarship opportunities are available with FSGC.

This goal positively impacts NASA Education Objectives: 1.1; 1.2; 1.4; 1.5; 2.1; 2.3; 3.2

a. **Action Plan** – In 2010, in conjunction with FSGC Affiliate organizations begin developing a Florida-wide list of dynamic, engaging presenters who can speak effectively to large groups on NASA-related themes and topics. Also in 2010, the FSGC Director will begin the Space-

Related Research Symposia planning process with the FSGC Advisory Board and FSGC Affiliates by exploring options for theme, venue, funding, etc.

#### RESEARCH INFRASTRUCTURE

- 1. Support NASA related interdisciplinary research projects emphasizing work-force development with undergraduate and graduate students.
  - a. **SMART Objective** On an annual basis, at least 12 research projects will be competitively awarded. At least three of these research project awards will be awarded to a minority serving institution and/or include minority participation. At least 12 undergraduate or graduate students will be supported by the projects, including at least 5 women and 4 under-represented minorities.
  - a. Metrics Number of research projects awarded annually by FSGC. Number of research projects awarded annually by FSGC which include minority serving institutions and/or minority participation.
  - a. Contribution to Goal Research projects highlight the necessity of systems-based architecture and integrated problem-solving, both crucial to all extraterrestrial endeavors. Greater numbers of capable, enthusiastic students involved in the space program directly and indirectly positively impact all tiers of the employ-educate-engage-inspire NASA Education Strategic Framework.

This goal positively impacts NASA Education Objectives: 1.2; 1.3; 1.4; 1.5; 2.3; 3.2.

a. Action Plan – All FSGC Affiliates will receive detailed information on the research award criteria and selection process at least three months before the due dates. All FSGC Advisory Board members will be invited to participate in the FSGC Research Project Award Review Committee.

- 2. Foster collaboration among NASA engineers, Florida university faculty and industry partners.
  - a. **SMART Objective** By March 2014, facilitate at least two Space-Related Research Symposia within the State of Florida that specifically target NASA engineers, Florida university faculty and industry partners.
  - a. **Metric** Number of FSGC facilitated Space-Related Research Symposia held in Florida and attended by NASA engineers, Florida university faculty and industry partners.
  - a. **Contribution to Goal** Providing short-duration space-related information sharing and fellowship opportunities for highly skilled space technology talent will contribute to greater knowledge transfer among NASA, Florida university faculty and industry partners which will facilitate NASA-academia-industry collaboration on the nation's aerospace/space challenges.

This goal positively impacts NASA Education Objectives: 1.1; 1.5; 2.1; 2.3; 3.2.

a. **Action Plan** – In 2010, in conjunction with FSGC Affiliate organizations begin outreach to Florida university faculty and industry partners to solicit feedback on the space-related topics most relevant to their current and next most likely assignment.

#### HIGHER EDUCATION

- 1. Provide undergraduate students with opportunities for interdisciplinary hands-on experiences in team-based student launch activities and student pay-load development programs to better understand STEM concepts as they relate to space exploration.
- a. **SMART Objective** On an annual basis, involve at least 100 students, representing a minimum of five Florida-based higher education institutions, including at least one minority serving institution, in collaborative space-based interactive learning experiences.

- b. Metrics Number of students per year involved in FSGC sponsored student collaborative projects. Number of Florida-based higher education institutions represented annually by students participating in FSGC sponsored student collaborative projects. Number of minority serving institutions represented annually by students participating in FSGC sponsored student collaborative projects.
- c. **Contribution to Goal** Collaborative space-based interactive learning experiences emphasize STEM concepts, skills and the disciplines derived from STEM. Greater numbers of capable, enthusiastic students involved in the space program directly and indirectly positively impact all tiers of the employ-educate-engage-inspire NASA Education Strategic Framework.

This goal positively impacts NASA Education Objectives: 1.2; 1.3; 1.4; 1.5; 2.3.

- d. Action Plan Continue to sponsor and/or co-sponsor the student collaborative space-based interactive learning experiences that have been successful in the past and new experiences with similar characteristics. Examples include: Satellite Design Competition, Hybrid Rocket Competition, and FUNSAT.
- 2. Provide opportunities for space-related undergraduate students and faculty at FSGC Affiliate teaching universities.
  - a. **SMART Objective** On an annual basis, facilitate at least six (6) space-related projects supporting undergraduate students. At least two minority students will be supported through these projects.
  - b. **Metrics** Number of students per year participating in FSGC facilitated space-related undergraduate student projects. Number of minority students per year participating in FSGC facilitated space-related undergraduate student projects.

c. **Contribution to Goal** – Space-based projects involving students help to develop STEM workforce skills. Greater numbers of capable, enthusiastic students involved in the space program directly and indirectly positively impact all tiers of the employeducate-engage-inspire NASA Education Strategic Framework.

This goal positively impacts NASA Education Objectives: 1.2; 1.3; 1.5; 2.3.

d. **Action Plan** – Continue to sponsor and/or co-sponsor the student collaborative space-based projects that have been successful in the past and new projects with similar characteristics. Examples include: Google Lunar X Prize, NASA Academy and the Undergraduate Academy.

#### **OUTCOME II: EDUCATE AND ENGAGE**

Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers, and faculty.<sup>4</sup>

#### PRE-COLLEGE EDUCATION

Contri	oute space-re	lated r	esources	and	training	to l	help	increase t	he i	number	of	K	-12	teac	ners	wh	io:
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1	
1. advanced mat	Use space-related curricula resources to motivate more students to pursue h and science courses.
-	<b>SMART Objective</b> – On an annual basis, conduct and/or facilitate ted pre-service and in-service teacher training opportunities focused on space-related or science curricula. A minimum of 50 Florida teachers per year will attend this
b. conducted	<b>Metric</b> – Number of Florida teachers per year participating in FSGC l/facilitated space-related pre-service and/or in-service training.

c. Contribution to Goal – Space-related curricula excites curiosity, encourages exploration and helps to bring meaning to the application of math and science. Greater numbers of capable, enthusiastic students involved in the space program directly and indirectly positively impact all tiers of the employ-educate-engage-inspire NASA Education Strategic Framework.

This goal positively impacts NASA Education Objectives: 1.2; 1.3; 1.4; 2.1; 2.3; 3.2.

d. **Action Plan** – Explore funding options to support one-week summerintensive content-based professional development programs offered during the summers. Each year develop at least one new educational resource (podcast, webpage, lesson plan, etc.) that incorporates space-related math and/or science curricula. Solicit the Florida Public School District Superintendants for feedback on teachers' access to video conferencing and/or webcasts to maximize teacher participation in future teacher training opportunities. Continue to actively support K-12 teachers through the FSGC Aerospace Education Mini-Grants.

#### **OUTCOME III: ENGAGE AND INSPIRE**

Build strategic partnerships and linkages between STEM formal and informal education providers that promote STEM literary and awareness of NASA's mission.<sup>5</sup>

#### **INFORMAL EDUCATION (GENERAL PUBLIC)**

Contribute space-related resources to help increase the number of citizens who are aware of:

- 1. How the application of math and science enable or enhance common activities, NASA's contributions to our standard of living (beyond Velcro®), and NASA's mission.
  - a. **SMART Objective** On an annual basis, collaborate with Florida museums and/or science centers to facilitate/conduct engaging space-related learning events held in public venues. A minimum of two events per year will be held. At least 200 members of the public will attend one or more of these events per year.
  - b. **Metrics** Number of members of the public attending FSGC facilitated engaging space-related learning events per year in a Florida public venue. Number of FSGC facilitated engaging space-related learning events held in Florida public venues per year.
  - c. Contribution to Goal Broader public understanding and appreciation of how math and science are applied in our everyday lives will benefit all technologically-based industries including NASA and other aerospace/space initiatives. Greater numbers of well-informed and engaged citizens involved in the space program directly and indirectly positively impact all tiers of the employ-educate-engage-inspire NASA Education Strategic Framework.

This goal positively impacts NASA Education Objective: 3.2.

d. **Action Plan** – Continue to leverage FSGC's strong relationships with FSGC Affiliates to formulate a coordinated plan among interested Affiliates for joint participation in public space-related learning events in Florida. Contribute to the public's awareness of these events through announcements in the FSGC newsletter, on the FSGC website and through targeted FSGC/Affiliate press releases when appropriate.

#### **EXTERNAL RELATIONS**

1.	Positively influence p	public policy to stro	ongly support l	Florida's contin	nuing
leadership interests in	aerospace/space resea	arch, investment, ex	xploration and	commerce.	

- a. **SMART Objective** On a quarterly basis, beginning in 2010, distribute a newsletter to the FSGC Advisory Board and a minimum of 500 additional members of the Florida aerospace/space community. The quarterly publication will include information detailing FSGC and NASA programs, objectives and impact as well as information on relevant timely topics affecting space-related public policy issues.
- b. **Metrics** Number of quarterly newsletters distributed. Number of aerospace/space community members on the quarterly publication distribution list.
- c. Contribution to Goal Data regarding the relative health, status and stability of Florida's aerospace/space industry as well as emerging trends in supporting technologies (such as alternative fuels), economies (such as India, China and Russia), and workforce considerations (such as K-12 STEM scores) will help to shape opinions, plans and actions towards a pro-STEM, pro-NASA, pro-aerospace/space climate throughout Florida and across the country.

#### This goal positively impacts NASA Education Objective: 3.2.

d. **Action Plan** – During the last three months of 2009, in collaboration with the FSGC Advisory Board and FSGC Affiliates, begin refining a 'master list' of appropriate newsletter recipients throughout the state; include all Florida Public School District Superintendants. Create a prospective list of topics of interest that could be explored in future FSGC newsletters. Include at least one fact about how NASA positively affects our daily lives in each edition of the newsletter. Develop and maintain a webpage dedicated to current and past issues of the FSGC newsletter.

#### APPENDIX A

#### **SMART** OBJECTIVES

Specific • Measurable • Achievable • Relevant • Time-Bound

The **SMART** acronym is used widely in organizations to simplify and clarify goal setting. Ironically, the term has no defacto definition; there is a host of varying terminology used to explicate each letter. In this document, SMART refers to goals that are Specific, Measurable, Achievable, Relevant and Time-Bound.

- **Specific** FSGC goals are specific. We have clearly identified what is to be accomplished by when.
- **Measurable** FSGC goals are measurable. We have well-defined, concrete goals and will know whether or not they have been reached by measuring and monitoring clearly specified metrics.
- **Achievable** FSGC goals are achievable. We have created appropriate targets that are attainable with the resources and within the time-frame available to accomplish them.
- **Relevant** FSGC goals are relevant to NASA. We have selected goals that are realistic, that are significant, worth pursing, and that further NASA's Education Outcome and Objective Hierarchy.
- **Time-Bound** FSGC goals are time-bound. We have both long and short term objectives identified. These objectives are time-specific and our progress towards them will be tracked over time.

#### APPENDIX B

#### NASA EDUCATION OUTCOME AND OBJECTIVE HIERARCHY

#### OUTCOME 1 HIGHER EDUCATION – EMPLOY AND EDUCATE

Contribute to the development of the STEM (Science, Technology, Engineering, Mathematics) workforce in disciplines needed to achieve NASA's strategic goals, through a portfolio of investments.

- Objective 1.1 Faculty and Research Support (Employ) Provide NASA competency-building education and research opportunities for faculty, researchers, and post-doctoral fellows.
- Objective 1.2 Student Support (Educate) Provide NASA competency-building education and research opportunities to individuals to develop qualified undergraduate and graduate students who are prepared for employment in STEM disciplines at NASA, industry, and higher education.
- Objective 1.3 Student Involvement, Higher Education (Educate) Provide opportunities for groups of post-secondary students to engage in authentic NASA-related mission-based research and development activities.
- Objective 1.4 Course Development (Educate) Develop NASA-related course resources for integration into STEM disciplines.
- Objective 1.5 Targeted Institution Research and Academic Infrastructure (Employ) Improve the ability of targeted institutions to compete for NASA research and development work.

## OUTCOME 2 ELEMENTARY & SECONDARY EDUCATION – EDUCATE & ENGAGE

Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers and faculty.

- Objective 2.1 Educator Professional Development Short Duration (Engage) Provide short duration professional development and training opportunities to educators, equipping them with the skills and knowledge to attract and retain students in STEM disciplines.
- Objective 2.2 Educator Professional Development Long Duration (Educate) Provide long-duration and/or sustained professional development training opportunities to educators that result in deeper content understanding and/or competence and confidence in teaching STEM disciplines.

- Objective 2.3 Curricular Support Resources (Educate and Engage) Provide curricular support resources that use NASA themes and content to a) enhance student skills and proficiency in STEM disciplines; b) inform students about STEM career opportunities; and c) communicate information about NASA's mission activities.
- Objective 2.4 Student Involvement, K-12 (Engage) Provide K-12 students with authentic first-hand opportunities to participate in NASA mission activities, thus inspiring interest in STEM disciplines and careers, as well as provide opportunities for family involvement in K-12 student learning in STEM areas.

#### OUTCOME 3 INFORMAL EDUCATION – ENGAGE AND INSPIRE

Build strategic linkages between STEM formal and informal education providers that promote STEM literacy and awareness of NASA's mission.

- Objective 3.1 Resources (Engage and Inspire) Provide informal education support resources that use NASA themes and content to a) enhance participant skills and proficiency in STEM disciplines; b) inform participants about STEM career opportunities; and 3) communicate information about NASA's mission activities. In addition, develop a significant pool of qualified presenters of NASA aerospace content interacting with a large number of participants.
- Objective 3.2 Professional Development for Information Education Providers (Engage) Provide opportunities to improve the competency and qualifications of STEM informal educators, enabling them to effectively and accurately communicate information about NASA activities and access NASA data for programs and exhibits.
- Objective 3.3 Informal Education Provider Involvement Opportunities (Engage and Inspire) Develop a national pool of qualified informal educators with experience in NASA mission and related activities. In addition, engage informal educators using NASA themes to enable them to 1) enhance participant skills and proficiency in STEM disciplines; 2) inform participants about STEM career opportunities; and 3) communicate information about NASA's mission activities. And further, establish and maintain a single informal education network for accessing NASA materials that has the flexibility for special interest groups to function as a subset of the larger network.

#### APPENDIX C

#### FLORIDA SPACE GRANT CONSORTIUM AFFILIATES

	FSGC AFFLIL	IATES	
Astronaut Memorial Foundation	Mr. Gene Tavares	tavares@amfcse.org 386.226.7	7059
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#### APPENDIX D

#### FSGC OPERATIONAL PLAN AND ASSESSMENT OF RESULTS

#### 2010-2011 STRATEGIC GOALS AND PRIORITIES

Plan Commitments * Indicates ANNUAL Resis			Notes	Progress Health (Blue, Green, Yellow, Red)				NASA Educational Outcomes/Objectives Supported									
Objective	Owner	Target Start	Target Completion	Success Criteria		Q1 Q2 Q3 Q4			1,1	1 2 1 1.2 1.3 1.4 1.5 2.1 2						3.2	
Fellowships & Scholarships Undergraduate/Training Awards and Graduate Fellowships				20+ Undergraduate and/or technical training awards*     3+ Graduate fellowships*	6+ will be awarded to minority candidates*      70%+ will continue to next step in STEM discipline*					√	<b>√</b>	✓		✓			
Fellowships & Scholarships Research Symposia Targeing Graduate Students				2+ Space-Related Research Symposia in FL by Mar '14 targeting graduate student participation						√	✓		✓	✓	✓	✓	<b>√</b>
Research Infrastructure Student Research Projects				12+ Research Projects competitively awarded*	3+ will be awarded to minority serving institutions and/or include minority participation*						✓	✓	✓	✓		✓	✓
Research Infrastructure Research Symposia Trageting NASA Engineers, Florida's Universities' Faculty, and Industry Partners				2+ Space-Related Research Symposia in FL by Mar '14 targeting NASA engineers, Floida's universities' faculty and industry partners						√				√	√	√	√
Higher Education  Space Based Interactive Learning for Undergraduate and Graduate Students in Horida				100+ Students involved in collaborative, space-based interactive learning experiences*	<ul> <li>5+ Florida-based higher education institutions (including one minority serving institution) will be represented*</li> </ul>						✓	✓	✓	✓		✓	
Higher Education Space Related Undergradute Student Projects				6+ Space-Related projects supporting undergraduate students*	2+ minority students will be supported through these projects*						✓	✓		✓		✓	
Pre-College Education Space Related Pre-Service and In-Service Teacher Training Focused on Math and/or Science Curricula				50+ Florida teachers will participate in space-related training opportunites*	• The pre-service and in- service teacher training will focus on space-related math and/or science*						✓	✓	✓		<b>√</b>	✓	✓
Informal Education  Space Related Learning Events in Public Venues				2+ Space Related public events will be held in FL*     200+ members of the public will participate*													✓
External Relations Quarterly Newsletter to FSGC Advisory Board and Foreida's Aerospace/Space Community				Newsletter to be distributed to FSGC Advisory Board and 500+ members of the aerospace/space community in FL	The newsletter will be distributed Quarterly beginning in 2010												✓
	DI.																
PROGRESS	Blue		Complete														
HEALTH	Green		On Target														
KEY	Yellow		Critical Target missec														

<sup>1</sup> SMART Goals: Specific – Measureable – Achievable – Relevant – Time-Bound

- <sup>3</sup> NASA Education Strategic Coordination Framework: A Portfolio Approach, February 2006 http://education1.nasa.gov/about/strategy/
- <sup>4</sup> NASA Education Strategic Coordination Framework: A Portfolio Approach, February 2006 http://education1.nasa.gov/about/strategy//
- <sup>5</sup> NASA Education Strategic Coordination Framework: A Portfolio Approach, February 2006 http://education1.nasa.gov/about/strategy/

<sup>&</sup>lt;sup>2</sup>NASA Education Strategic Coordination Framework: A Portfolio Approach, February 2006 http://education1.nasa.gov/about/strategy/