

Appendix A4.4.10

Physics

FLORIDA A&M UNIVERSITY
COLLEGE of ARTS and SCIENCES
Questions from Governor Rick Scott
Response Document for Academic Deans

Name of DEPARTMENT: PHYSICS

Note: The listing of questions A through Q has gaps in the lettering because they correspond to the Governor's request, and the deans are not being asked to respond to every question. Please use the lettering as they appear below for each of your responses.

	QUESTION	RESPONSE
A.	<i>What studies has your university done in the last three years to ensure your graduates are meeting the needs of employers?</i>	The Physics Chair makes telephone calls and inquires via email as to the progress of Physics graduates. Most of FAMU B.S. graduates go to graduate school. FAMU Physics makes contact with the chair of the departments where our graduates matriculate to judge how well they are performing.
B.	<i>Do you have measurable goals to meet employers' current needs? If so, please provide them. How often are these goals updated?</i>	FAMU Physics insures that FAMU Physics graduates are proficient in the various subareas of Physics and Mathematics. We measure this by examinations and performance on the GRE.
C.	<i>Do you have measurable goals for each graduate in the areas of writing proficiency and critical thinking? If so, please send them to me with the goals and include the results for the last five to ten years.</i>	<ul style="list-style-type: none"> • Every graduating senior will receive a mean score of 80% in the oral presentation exit exam, graded by a team of faculty members using the presentation rubric. • Students will write a scientific paper that includes an abstract, introduction, materials and methods, results and discussion. • A graduating physics major should have solved many and different kinds of problems in various physics and other science and math courses. The measure of one's critical ability of solving problems is demonstrated by the grades the student receives in various course work.
E.	<i>Are professors required to integrate writing proficiency and critical thinking into all courses? If so, what oversight is provided to ensure that these skills are being taught? How are these skills integrated into course assessments?</i>	<p>Students will be required to complete written lab reports and critique published research papers.</p> <ul style="list-style-type: none"> • Graduating seniors present their research results to their peers, The Society of Physics Students. The presentation is expected to be in Powerpoint involving graphs, tables, digital photographs of equipment, and careful analysis of data. A question and answer period follows the presentation. • Students will write a scientific paper that includes an abstract, introduction, materials and methods, results and discussion •Extract information from physics text through analytic reading •Calculate and interpret the results of various, physics problems •Solve real world problems using the principles of physics.

	QUESTION	RESPONSE
F.	<i>Do you have measurable goals for student success after graduation? If so, please send me the goals and the</i>	FAMU Physics has the goal that all of our graduates get a job or go graduate school. We track our graduates and stay in contact with them as much as possible. FAMU Physics expects graduates to have mastered the core subject
M.	<i>M. What programs do you have to educate students regarding job opportunities? What are your measureable goals for each program? Do you use information similar to the data available from the Florida education and Training Placement Information Program (FETPIP) to prepare students prior to admission and prior to selection of major? Please provide me the results for the last five to ten years .</i>	Recruiters for graduate programs are constantly asking for access to our Physics students. We have regular visits from MIT, U. Of Michigan, Rutgers, Delaware, etc. We keep track of employment and graduate programs which our students enter--see attachments. Very large numbers of graduate programs send their descriptive literature intended to recruit our students--we literally have at least one hundred schools advertising their programs to our students. Our students are in very great demand--if they want a job, they get it. If they want to go to graduate school, they can.
Q.	<i>Q. Please provide me with any additional information you think way be helpful, including your thought process to make sure we are headed in the right direction .</i>	We are now planning a new B.S. program in Nano-Materials Engineering Physics. This will certainly double the number of undergraduates since this is a very active field and is attracting a great deal of attention nationally. FAMU Physics has about \$3 million a year of external funding and we are very active in research--our undergraduates and graduate students are very involved in research. The students are constantly traveling to research conferences where they are also recruited by employers and graduate programs.

Department of Physics Graduates
College of Arts and Sciences

Academic Year: Fall 2005 – Summer 2006

Name	Term/Year Graduated	Degree Earned	Gender	Race	Current/Last Known Status
Delonia Wiggins	Fall 2005	B.S.	Female	Black	Ph.D. Program in Physics @ FAMU
Harold Brown	Spring 2006	B.S.	Male	Black	Employed in Tallahassee
Staci Brown	Spring 2006	B.S.	Female	Black	Admitted to Ph.D. Program in Physics
Arnesto Bowman	Spring 2006	M.S.	Male	Black	Ph.D. Program in Physics @ FAMU
Justin McDowell	Spring 2006	M.S.	Male	Black	Employed by Accenture in Atlanta, GA
Johnny Williamson	Summer 2006	M.S.	Male	Black	Ph.D. Program in Physics @ FAMU
Jeremy J. Jackson	Summer 2006	Ph.D.	Male	Black	Research Scientist with SenTech, Inc. (part of SRA International, Inc.)

Academic Year: Fall 2006 – Summer 2007

Name	Term/Year Graduated	Degree Earned	Gender	Race	Current/Last Known Status
Alonzo Alexander	Spring 2007	B.S.	Male	Black	M.S. Program in Education @FAMU; Employed at FAMU Physics-CePAST
Alwyn Morgan	Fall 2006	M.S.	Male	Black	Unknown
Cleon Barnett	Spring 2007	Ph.D.	Male	Black	Assistant Professor of Physics @ Alabama State University
Ely Leon	Spring 2007	Ph.D.	Male	Hispanic	Adj. Assistant Professor of Physics, Chicago State University
Eddie Red	Fall 2006	Ph.D.	Male	Black	Assistant Professor of Physics, Morehouse College
Stephen Roberson	Fall 2006	Ph.D.	Male	Black	Employed with US Army – Aberdeen, MD

Department of Physics Graduates
College of Arts and Sciences

Academic Year: Fall 2007 – Summer 2008

Name	Term/Year Graduated	Degree Earned	Gender	Race	Current/Last Known Status
Kevin Robinson	Spring 2008	B.S.	Male	Black	Admitted to Ph.D. Program in Physics @ FAMU
Chavis Raynor	Spring 2006	Ph.D.	Male	Black	Business Owner, Tutorial Services for Students, Atlanta, GA
Bulmuo Maakuu	Spring 2006	Ph.D.	Male	Black	Assistant Professor, Community College, Winter Haven, FL

Academic Year: Fall 2008 – Summer 2009

Name	Term/Year Graduated	Degree Earned	Gender	Race	Current/Last Known Status
Brian Walton	Fall 2008	B.S.	Male	Black	Graduate School at Texas A&M University
Gregory Woodard	Spring 2009	B.S.	Male	Black	Employed @ Accenture in Atlanta, GA
Allen Sharper	Spring 2009	B.S.	Male	Black	M.S. Program in Physics @ FAMU
Hanna Mochona	Spring 2009	B.S.	Female	Black	FAMU/FSU Engineering Program @ FAMU
Patrice Jackson	Spring 2009	B.S.	Female	Black	Ph.D. Program in Physics @ FAMU
Samson Gebreegzabher	Fall 2008	M.S.	Male	Black	Seattle, WA
Delonia Wiggins	Fall 2008	M.S.	Female	Black	Continued in Ph.D. Program in Physics @ FAMU

Department of Physics Graduates
College of Arts and Sciences

Academic Year: Fall 2009 – Summer 2010

Name	Term/Year Graduated	Degree Earned	Gender	Race	Current/Last Known Status
Esther Raymond	Spring 2010	B.S.	Female	Black	Unknown
Daniel Gebremedhin	Spring 2010	M.S.	Male	Black	Continued in Ph.D. Program in Physics @FAMU
Kevin Robinson	Spring 2010	M.S.	Male	Black	Pursuing Career in Finance in Miami
James Titus	Spring 2010	M.S.	Male	White	Continued in Ph.D. Program in Physics @ FAMU
Delonia Wiggins	Spring 2010	Ph.D.	Female	Black	Post-doc at University of Wisconsin

Academic Year: Fall 2010 – Summer 2011

Name	Term/Year Graduated	Degree Earned	Gender	Race	Current/Last Known Status
Adam Byrd	Spring 2011	B.S.	Male	White	Graduate @ FAM Physics
Kevin Jones	Spring 2011	B.S.	Male	Black	Graduate Program @ MIT
Mareena Robinson	Spring 2011	B.S.	Male	Black	Graduate Program @ MIT
Marquita Scott	Spring 2011	B.S.	Female	Black	Unknown
Kalisa Villafana	Spring 2011	B.S.	Female	Black	Returned to the Islands
Yoseph Abere	Spring 2011	M.S.	Male	Black	Transferred to North Carolina A&T
Natanette Craig	Fall 2010	Ph.D.	Female	Black	Continued in Ph.D. Program in Physics @ FAMU

B.S. Degree Program in Physics
 College of Arts and Sciences
 Number of M.S. Graduated

Name	Year Graduated with B.S. in Physics	Gender	Race
Delonia Wiggins	Fall 2005	Female	Black
Harold Brown	Spring 2006	Male	Black
Staci Brown	Spring 2006	Female	Black
		Female	Black
Alonzo Alexander	Spring 2007	Male	Black
Kevin Robinson	Spring 2008	Male	Black
		Male	Black
Brian Walton	Fall 2008	Male	Black
Gregory Woodard	Spring 2009	Male	Black
Allen Sharper	Spring 2009	Male	Black
Hanna Mochona	Spring 2009	Female	Black
Patrice Jackson	Spring 2009	Female	Black
Esther Raymond	Spring 2010	Female	Black
Adam Byrd	Spring 2011	Male	White
Kevin Jones	Spring 2011	Male	Black
Mareena Robinson	Spring 2011	Female	Black
Marquita Scott	Spring 2011	Female	Black
Kalisa Villafana	Spring 2011	Female	Black

M.S. Degree Program in Physics
 College of Arts and Sciences
 Number of M.S. Graduated

Name	Year Graduated with M.S. in Physics	Gender	Race
Yoseph Abere	Spring 2011	Male	Black
Arnesto Bowman	Spring 2006	Male	Black
Natanette C. Craig	Fall 2003	Female	Black
Samson Gebreegziabher	Fall 2008	Male	Black
Daniel Gebremedhin	Spring 2010	Male	Black
Jay D. Jackson	Spring 2006	Male	Black
Jawahar Jain	Fall 1995	Male	Pacific Islander
Dwayne Joseph	Fall 2004	Male	Black
Ely Leon	Spring 2001	Male	Hispanic
Bulmuo Maakuu	Summer 2005	Male	Black
Justin McDowell	Spring 2006	Male	Black
Alwyn Morgan	Fall 2006	Male	Black
Chavis Raynor	Spring 2003	Male	Black
Eddie Red	Spring 2002	Male	Black
Kevin Robinson	Summer 2010	Male	Black
James Titus	Fall 2009	Male	White
Delonia Wiggins	Fall 2008	Female	Black
Johnny Williamson	Summer 2006	Male	Black
Albert Wynn III	Spring 2001	Male	Black

Ph.D. Degree Program in Physics
 College of Arts and Sciences
 Number of Ph.D. Students Graduated

Name	Year Graduated with Ph.D. in Physics	Gender	Race
Kyron Williams	Spring 2004	Male	Black
Jeremy J. Jackson	Summer 2006	Male	Black
Eddie Red	Fall 2006	Male	Black
Stephen Roberson	Fall 2006	Male	Black
Cleon Barnett	Spring 2007	Male	Black
Ely Leon	Spring 2007	Male	Hispanic
Bulmuo Maakuu	Fall 2007	Male	Black
Chavis Raynor	Fall 2007	Male	Black
Delonia Wiggins	Spring 2010	Female	Black
Natanette C. Craig	Fall 2010	Female	Black