



**PHYSICS CLUSTER AGENDA**  
**Thursday, March 26, 2015 1:00-4:00 PM**  
**Lake Worth Campus Room NS 124**

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**ITEM I. Karen Pain's Request for help with analysis of embedded assessment data**

**Discussion:**

Professor Trupin opened the meeting. He stated that embedded assessment benchmarks could not be established because of inconsistency within the data and that the data variation is statistically insignificant.

Professor Jordan suggested that we propose a benchmark for the embedded assessments of 50%. Discussion on this topic included the cluster members' concerns that these benchmarks would eventually become part of the Faculty evaluation instrument just as other student success statistics have.

Professor Andric as well as everyone else in the meeting agreed that the consistency of the data, based on how it is collected from students would make any benchmark meaningless at this time.

Karen Pain agreed that the meaningfulness of the data is dependent upon a consistent implementation of the tests and that setting implementation standards would improve this. She stated that the type of implementation for each course was up to the cluster members who teach the courses.

Karen also indicated that SACs now wants a demonstration of student competency in General Education courses.

She went on to tell the cluster that the embedded assessment will remain the same through next Fall but after that we will be asked to consider if different Learning Outcomes and/or embedded assessments should be considered.

Karen indicated that IRE does not want to set arbitrary benchmarks and that is why we have been asked to review the embedded assessment data and suggest benchmarks for each course based on the data. The benchmarks should not be too high but should also show that a reasonable level of rigor is required to achieve that benchmark. She suggested that a benchmark be provided in a format indicating: "a specific percentage of students would answer a specific number or percentage of the assessment questions".

**Action:**

A discussion of the types of implementation ensued and each of the members agreed that the embedded assessments for each course would be included within a test that occurred as a regular

part of the course without the students having a prior knowledge that the specific assessment questions would be on that test.

In addition, the cluster members agreed to provide a specific benchmark for their courses prior to the April 30 deadline requested by Karen Pain.

## **ITEM II. Textbooks**

### **Discussion:**

Professor Bang indicated that he would no longer require a textbook be purchased for his courses PHS 2048 and 2049 beginning next Fall semester. He would use free courseware instead.

Professor Grasso indicated that the 12<sup>th</sup> edition of the current textbook (Hewitt) for PSC 1341 would be implemented next Fall semester

Professor Trupin indicated that the 7<sup>th</sup> edition of the current textbook used for Oceanography (OCE 1001) would be used beginning next Fall semester.

### **Action:**

The attached textbook reference list was updated to include these changes.

## **ITEM III: Student Withdrawal Rates**

### **Discussion:**

Professor Trupin asked that the cluster consider what factors go into a student's decision to withdraw from a course and if there are any ideas about how withdrawal rates may be reduced.

Reasons for withdrawing were provided by several cluster members such as family problems, lack of student motivation, too much other work, childcare issues and scheduling problems etc...

Professor Jordan and Professor Andric as well as several other cluster members expressed the opinion that course standards should not be reduced to reduce withdrawal rates.

Professor O'Brien indicated that withdrawal is a better alternative than actually failing the class.

Professor Stemle suggested that the course requirements and standards be emphasized more frequently during the course

### **Action:** None taken

#### **ITEM IV: Consideration of new “F” Failure designation**

##### **Discussion:**

The cluster discussed adding new grade designation for students failing a class because of cheating. This discussion was the result of a request by a professor from the Palm Beach Gardens campus because a student was caught entering her office and stealing two tests.

Professors Trupin and Stemle indicated that they were of the opinion that not all cheating was the same and that a permanent designation of Failure by cheating on a student’s transcript should not be applied in all cases. This sentiment was generally agreed upon by the cluster members.

Professors Andric and Jordan suggested that there be a permanent designation for the most egregious acts of cheating as happened in the Palm Beach Gardens case.

Professors Stemle and Trupin indicated that in such a case it may be more appropriate to press criminal charges.

**Action:** None taken

#### **ITEM IV: Selection of Chair and Scribe for next year**

##### **Action:**

Nominations for Chair and Scribe for the next school year (2015-2016) were given as listed below:

Chair: Professor Stemle nominated Professor Trupin. The nomination was seconded by Professor Miner and Professor Trupin was elected by a vote of 9-0.

Scribe: Professor O’Brien was nominated by Professor Stemle. The nomination was seconded by Professor Grasso and Professor O’Brien was elected by a vote of 9-0.

Professor Trupin agreed to serve as Cluster Chair and Professor O’Brien agreed to serve as Cluster Scribe for the upcoming school year (2015-2016).

**OTHER. There being no other business to discuss the meeting was adjourned at 4:00pm.**

Attendance : Andrew Trupin, Steven Stemle, Jerry O'Brien, Lilian Jordan, Marie Grasso,  
Jeffrey Sundquist, Oleg Andric, William Miner, Jang-Young Bang, Carlos Ramos and  
Karen Pain

Submitted by:

Steven Stemle

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Scribe

## TEXTBOOK ADOPTIONS for the Academic Year – 2015-2016

### Descriptive Astronomy

**Course Title and Number:** Descriptive Astronomy – AST 1002

**Current Textbook:** Astronomy: A Beginner's Guide to the Universe by Chaisson & McMillan, 7<sup>th</sup> Edition, ISBN-10 0321815351 / ISBN-13 978-0-321-815354

**Publisher:** Addison-Wesley    **Copyright:** September 2012

**First Semester for Current Edition:** Fall 2012

**Last Semester for Current Edition:** Unknown

*Textbook used by Professor Lilian R. Jordan only*

**Course Title and Number:** Descriptive Astronomy – AST 1002

**Current Textbook:** Discovering the Essential Universe by Commins, 3<sup>th</sup> Edition, ISBN 071674595X

**Publisher:** W. H. Freeman    **Copyright:**

**First Semester for Current Edition:** Fall 2005

**Last Semester for Current Edition:** Unknown

This supplement may be required by Professor Lilian R. Jordan

**Course Title and Number:** Descriptive Astronomy – AST 1002

**Supplement:** Lecture-Tutorials for Introductory Astronomy by Prather, Slater, Adams, and Brissenden, 2<sup>nd</sup> Edition, ISBN 9780132392266

**Publisher:** Addison-Wesley    **Copyright:**

**First Semester for Current Edition:** Fall 2008

**Last Semester for Current Edition:** Unknown

### Planetary Astronomy

Class discontinued by Physics Cluster 3/26/2014

**Course Title and Number:** Planetary Astronomy – AST 1003

### Stellar and Galactic Astronomy

Class discontinued by Physics Cluster 3/26/2014

**Course Title and Number:** Stellar and Galactic Astronomy – AST 1004

### Earth Science

**Course Title and Number:** Earth Science – ESC 1000

**Current Textbook:** Earth Science by Tarbuck, Lutgens, and Tasa, 14<sup>th</sup> Edition, ISBN-10 (soft cover version): 978-0-321-92809-2

**Publisher:** Pearson/Prentice Hall    **Copyright:** 2012, 2015

**First Semester for Current Edition:** Fall 2014

**Last Semester for Current Edition:** Unknown

Earth Science (Study Guide available but not required)

**Course Title and Number:** Earth Science – ESC 1000

**Study Guide:** Study Guide by Hatfield and Pinzke, 13<sup>th</sup> Edition, ISBN-10: 0321714857 / ISBN-13: 9780321714857

**Publisher:** Pearson/Prentice Hall    **Copyright:** 2012

**First Semester for Current Edition:** Fall 2011

**Last Semester for Current Edition:** Unknown

*Textbook required in Professor Jeffrey J. Sundquist's face-to-face class; optional for other sections.*

**Course Title and Number:** Earth Science – ESC 1000

**Current Textbook:** Applications and Investigations in Earth Science by Tarbuck, 2<sup>nd</sup> custom edition for Palm Beach State College, ISBN-10: 1256067032/ISBN-13: 9781256067030

**Publisher:** Pearson/Prentice Hall    **Copyright:** 2012

**First Semester for Current Edition:** Fall 2011

**Last Semester for Current Edition:** Summer 2014

Descriptive Geology

**Course Title and Number:** Descriptive Geology – GLY 1000

**Current Textbook:** Earth: An Introduction to Physical Geology by Tarbuck, 11<sup>th</sup> Edition, ISBN 13: 978-0-321-81406-7

**Publisher:** Pearson/Prentice Hall    **Copyright:** January 2014

**First Semester for Current Edition:** Fall 2013

**Last Semester for Current Edition:** Unknown

Introduction to Oceanography

**Course Title and Number:** Introduction to Oceanography – OCE 1001

**Current Textbook:** Invitation to Oceanography by Paul R. Pinet, 7<sup>th</sup> Edition, ISBN 13: 978-1284057072

**Publisher:** Jones and Bartlett Learning

**Copyright:** 2014

**First Semester for Current Edition:** Fall 2015

**Last Semester for Current Edition:** Unknown

## Applied Physics

**Course Title and Number:** Applied Physics – PHY 1001

**Current Textbook:** *Physics Principals with Applications*, by Douglas Giancoli, 7<sup>th</sup> edition, ISBN 10:0321625927; ISBN 13:878-0321625922

**Publisher:** Pearson/Prentice Hall    **Copyright:** 2014

**First Semester for Current Edition:** Spring 2014

**Last Semester for Current Edition:** Unknown

## General Physics with Calculus I

**Course Title and Number:** General Physics with Calculus I – PHY 2048

**Current Textbook:** Physics for Scientists and Engineers by Serway & Jewett, 7<sup>th</sup> Edition, ISBN 0495747173 (customized version of the 7<sup>th</sup> edition for PBSC – Palm Beach State College)

**Publisher:** Cengage Learning    **Copyright:** 2008

**First Semester for Current Edition:** Fall 2008

**Last Semester for Current Edition:** Unknown

### *For Professor Jang-Young Bang classes:*

## General Physics with Calculus I

**Course Title and Number:** General Physics with Calculus I – PHY 2048

**Current Textbook:** No Required Textbook; Free courseware will be used

**Publisher:**    **Copyright:**

**First Semester for Current Edition:** Fall 2015

**Last Semester for Current Edition:** Unknown

## General Physics I and General Physics with Calculus I Laboratory

**Course Title and Number:** General Physics I and General Physics with Calculus I Laboratory – PHY 2048L

**Current Laboratory Manual:** [Physics Laboratory Experiments](#) by Wilson, 6<sup>th</sup> Edition, ISBN 0618382593, ISBN 0618564276 (customized edition used at the Boca Raton campus)

**Publisher:** Houghton-Mifflin    **Copyright:** 2005

**First Semester for Current Edition:** Fall 2006

**Last Semester for Current Edition:** Summer 2010

**Course Title and Number:** General Physics I with General Physics with Calculus I Laboratory–PHY 2048L

**Current Textbook:** PHY 2048L Lab Manual, *Fourth Edition*, by Carlos F. Ramos, ISBN 978-1-4652-4801-5

**Publisher:** Kendall Hunt Publishing Company

**Copyright:** 2009, 2011, 2013, 2014

**First Semester for Current Edition:** Fall 2011

**Last Semester for Current Edition:** Unknown

## General Physics with Calculus II

**Course Title and Number:** General Physics with Calculus II – PHY 2049

**Current Textbook:** [Physics for Scientists and Engineers](#) by Serway & Jewett, 7<sup>th</sup> Edition, ISBN 0495747173 (customized version of the 7<sup>th</sup> edition for PBSC – Palm Beach State College)

**Publisher:** Cengage Learning    **Copyright:** 2008

**First semester for Current Edition:** Fall 2008

**First semester for Current Edition:** Unknown

### *For Professor Jang-Young Bang classes:*

## General Physics with Calculus II

**Course Title and Number:** General Physics with Calculus II – PHY 2049

**Current Textbook:** No Required Textbook, Free Courseware will be used

**Publisher:**    **Copyright:**

**First semester for Current Edition:** Fall 2015

**First semester for Current Edition:** Unknown

## General Physics II and General Physics with Calculus II Laboratory

**Course Title and Number:** General Physics II and General Physics with Calculus II Laboratory – PHY 2049L

**Current Laboratory Manual:** [Physics Laboratory Experiments](#) by Wilson, 6<sup>th</sup> Edition, ISBN 0618382593, ISBN 0618564276 (customized edition used at the Boca Raton campus)

**Publisher:** Houghton-Mifflin    **Copyright:** 2005

**First Semester for Current Edition:** Fall 2006

**Last Semester for Current Edition:** Summer 2010

*Note: Professors at the Lake Worth campus use the manual below.*

**Course Title and Number:** General Physics II with General Physics with Calculus II Laboratory – PHY 2049L

**Current Textbook:** [PHY 2049L Lab Manual](#), *Fourth Edition*, by Carlos Ramos, ISBN 978-1-4652-4802-2

**Publisher:** Kendall Hunt Publishing Company

**Copyright:** 2009, 2011, 2013, 2014

**First Semester for Current Edition:** Fall 2011

**Last Semester for Current Edition:** Unknown



## General Physics I

**Course Title and Number:** General Physics I – PHY 2053

**Current Textbook:** Physics by Cutnell & Johnson, Volume One, 8<sup>th</sup> Edition, ISBN 9781118306321 (customized version of the 8<sup>th</sup> edition for PBSC – Palm Beach State College)

**Publisher:** John Wiley & Sons. Inc.     **Copyright:** 2012

**First Semester for Current Edition:** Fall 2012

**Final Semester for Current Edition:** Unknown

## General Physics II

**Course Title and Number:** General Physics II – PHY 2054

**Current Textbook:** Physics by Cutnell & Johnson, Volume Two, 8<sup>th</sup> Edition, ISBN 9780470379257 (paperback)

**Publisher:** John Wiley & Sons. Inc.     **Copyright:** 2009

**First Semester for Current Edition:** Fall 2009

**Final Semester for Current Edition:** Summer 2012

## Physical Science for Today's World

**Course Title and Number:** Physical Science for Today's World – PSC 1341

**Current Textbook:** Conceptual Physics by Hewitt, 12<sup>th</sup> Edition, ISBN 13: 978-0-321-909107

**Publisher:** Paul Hewitt/Addison Wesley     **Copyright:**

**First Semester for Current Edition:** Fall 2015

**Last Semester for Current Edition:** Unknown

**Workbook:** Practicing Physics

ISBN: 13:978-0-0321-66256-9

### ***For Professor Jang-Young Bang classes:***

**Course Title and Number:** Physical Science for Today's World – PSC 1341

**Current Textbook:** Conceptual Physics by Hewitt, 12<sup>th</sup> Edition bundled with “Mastering Physics” online, ISBN 13: 978-0-321-909107

**Publisher:** Paul Hewitt/Addison Wesley     **Copyright:** 2014

**First Semester for Current Edition:** Spring 2015

**Last Semester for Current Edition:** Unknown