

# Grad Seminar

---

## 25 January 2019—PKH 111

---

*\*Undergraduates welcomed\**

---

### DWIGHT A. WILLIAMS II

### “HOW TO BE A SUPERMATHEMATICIAN?”

---

#### ABSTRACT:

Supermathematics! We can thank physicists for gassing us up with a term prefixed by “super-”. But the real content is in a particular type of grading:

I will explain what grading is using the degree of a polynomial and familiar concepts. Then we will consider “zee-two-grading”, the evens and the odds. Finally, we will try to make some connections to nature, physics, chemistry, etc...

Goal: to be a certified supermathematician!

#### PREVIOUS SCHOOLS (no need for degrees):

Florida A&M University

Florida State University

#### INTERESTS :

Ball is life! I love basketball! I’ve also been blessed to learn from folks in countries around the world—my wife and I like to travel: Peru, Brazil, Barbados, Italy, Australia, Mexico, Canada, England are some of the countries either one of us has visited.

# Grad Seminar

---

## 25 January 2019—PKH 111

---

*\*Undergraduates welcomed\**

---

### DWIGHT A. WILLIAMS II

### “MY PRELIM-STUDYING PLAN IN DETAIL”

---

#### ABSTRACT:

Claim: Prelims suck.

Proof: They do.

For graduate students, passing preliminary exams seems like a necessary evil. The process is hard; however, the process can serve as a lesson, illuminating opportunities to grow. In particular, this session we will discuss scheduling techniques for studying prelims and for building daily habits for graduate school well-being.

Included: specific resources, discussion on adjustments, and an activity to begin a plan for Summer 2019!

#### PREVIOUS SCHOOLS:

Florida A&M University

Florida State University

#### INTERESTS :

Ball is life! I love basketball! I’ve also been blessed to learn from folks in countries around the world—my wife and I like to travel: Peru, Brazil, Barbados, Italy, Australia, Mexico, Canada, England are some of the countries either one of us has visited.

# Grad Seminar

---

## 25 January 2019—PKH 111

---

*\*Undergraduates welcomed\**

---

### DWIGHT A. WILLIAMS II

### “COMPREHENSIVE EXAM PRACTICE”

---

#### ABSTRACT:

My comprehensive exam is in 2 weeks. Please come for support and encouragement.  
Ask questions—sometimes the best view of the house is from the outside!

#### PREVIOUS SCHOOLS:

Florida A&M University

Florida State University

#### INTERESTS :

Ball is life! I love basketball! I've also been blessed to learn from folks in countries around the world—my wife and I like to travel: Peru, Brazil, Barbados, Italy, Australia, Mexico, Canada, England are some of the countries either one of us has visited.

# Grad Seminar

---

## 25 January 2019—PKH 111

---

*\*Undergraduates welcomed\**

---

### DWIGHT A. WILLIAMS II

### “GROUP REVIEW: DIFFERENTIATION”

---

#### ABSTRACT:

Let's talk about differentiation! What's the best linear approximation of a curve near a point?

Practice? There will be problems!

Goal: To highlight examples, historical development, and equivalent definitions for the purpose of understanding the derivative of a real-valued function at a point in the domain of the function.

If time permits, then we will venture into the land of the Jacobian, total derivatives, and directional derivatives.

#### PREVIOUS SCHOOLS:

Florida A&M University

Florida State University

#### INTERESTS :

Ball is life! I love basketball! I've also been blessed to learn from folks in countries around the world—my wife and I like to travel: Peru, Brazil, Barbados, Italy, Australia, Mexico, Canada, England are some of the countries either one of us has visited.

# Grad Seminar

---

## 25 January 2019—PKH 111

---

*\*Undergraduates welcomed\**

---

### DWIGHT A. WILLIAMS II

### “...A NOETHER ONE...”

---

#### ABSTRACT:

Amalie Emmy Noether was a boss.

Vivienne Lucille Malone-Mayes was a boss.

Maryam Mirzakhani was a boss.

Sadly, the word “was” is in reference to their lives, but their respective legacies hold them as boss ladies forever!

#### PREVIOUS SCHOOLS:

Florida A&M University

Florida State University

#### INTERESTS :

Ball is life! I love basketball! I’ve also been blessed to learn from folks in countries around the world—my wife and I like to travel: Peru, Brazil, Barbados, Italy, Australia, Mexico, Canada, England are some of the countries either one of us has visited.