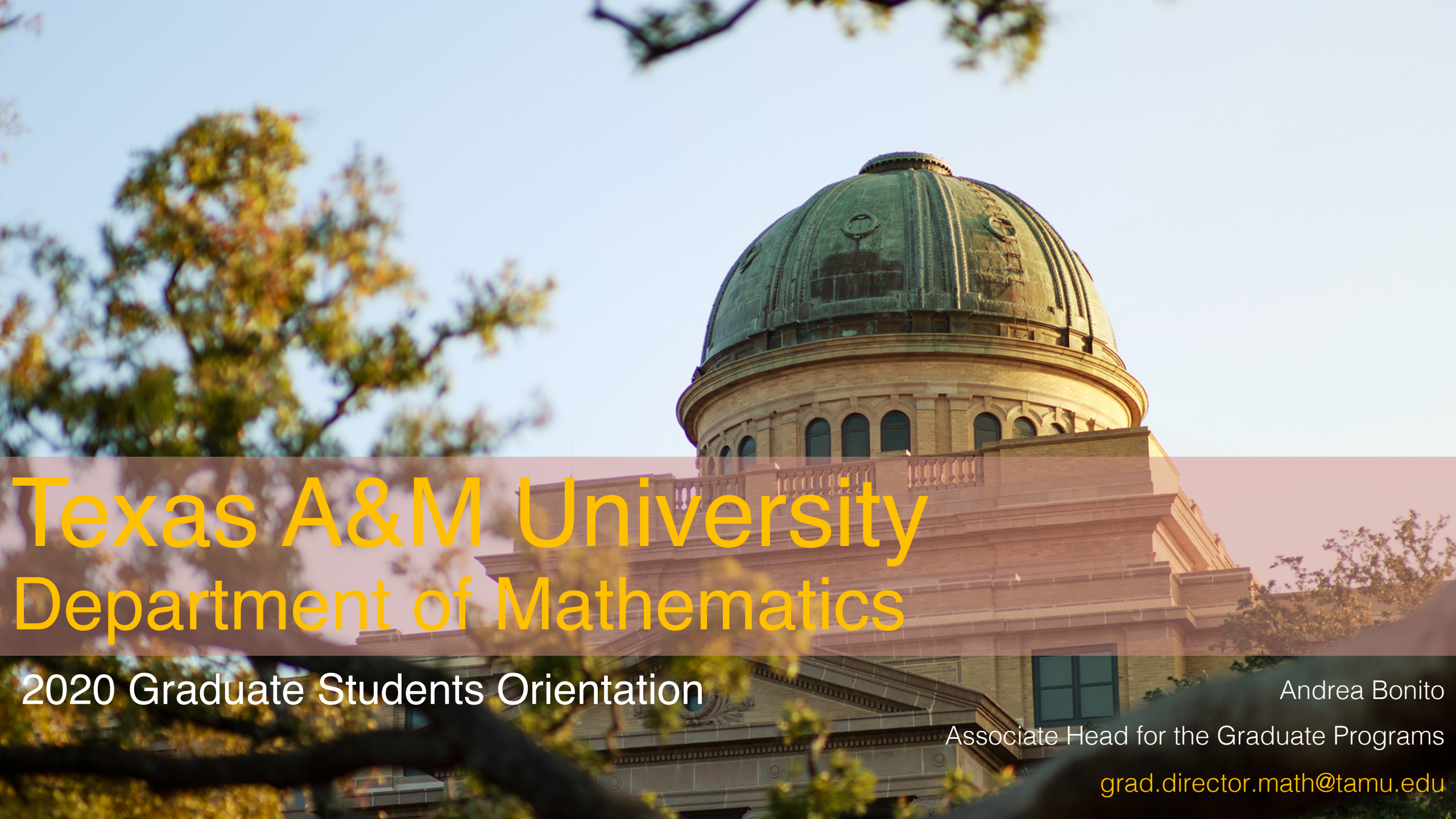

Texas A&M University
Department of Mathematics

2020 Graduate Students Orientation

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Outline

- Schedules and timelines
- Brief Facts about Texas A&M
- Overview of the department
- Initial Course Scheduling
- Warning about Scams and Frauds

This talk is available at https://www.math.tamu.edu/~bonito/graduate_programs.html

Schedules and Timelines

Actual Orientation Day (to be confirmed)

- August 13: Computer account forms
- Online: Overview of the programs; discussion of course scheduling, See this presentation
- Online: TA assignments, David Manuel; By email in August
- Online: Computer systems, See David Manuel Presentation (to be communicated soon)
- Online: Graduate Student Organizers and Representatives
  - GSO, See Flyer
  - AMS Student Chapter, See Flyer
  - SIAM Student Chapter, See Flyer
  - AWM Student Chapter, See Flyer
- Online: Course scheduling, Contact the mentor you have been associated to (p. 16)
- August 13: payroll processing

Department Account and Email

- Students should have a department account by the end of the day.
- Students should have a university email. You can request it in Howdy using your NetId

https://gateway.tamu.edu

To the extent possible, students should check this account at least once each day while in the program.

Do not Forget

- International student check-in

  iss.tamu.edu/Prospective-Students/Check-In

- University level graduate student orientation (to be confirmed)

  ogaps.tamu.edu/New-Current-Students/New-Graduate-Student-Orientation

Schedule for the Semester

- Tuesday, Aug. 18: Last day to register for Fall 2020 classes without a penalty
- Friday, Aug. 14: All Fall semester bills due by 5:00 p.m.
- Wednesday, Aug. 19: First day of classes
- Wednesday, Aug. 29: First meeting of the First Year Graduate Student Seminar (FYGSS), 5:30 p.m. 6:30 p.m. in TBA
- Tuesday, Aug. 25: Last day for drop / add
- Tuesday, Nov. 24: Last day of classes
- TBA: English Language Proficiency Exam (ELPE)

testing.tamu.edu/Exams/ELPE

Brief Facts about Texas A&M

About Texas A&M

- Founded in 1876
- A&M originally referred to “agriculture and mechanics,” but in 1963 this interpretation was dropped
- Among the 5 largest universities in the US, public and private
- About 70,000 students (College Station campus), including about 15,000 graduate and professional students
- 1st in nation for most graduates serving as CEOs of Fortune 500 companies
- 3 Nobel Prize winner
- 6 National Academy of Sciences Members
- $922 million (FY2018) in research expenditures
- In 2012 Texas A&M joined the Southeastern Conference (SEC)
- If you yell “Howdy” anywhere on campus, everyone within earshot will stop what they’re doing and yell it back

Campus Map

- An interactive campus map is available at the following site

aggiemap.tamu.edu

Student ID

- Students can apply for a Student ID on-line at the following site

myaggiecard.tamu.edu

- Cards can be picked up in the Aggie Card Office in Student Business Services, General Services Complex (GSC), Suite 2801.

Overview of the Department

People

- 76 Professors
- 29 Academic Professional Track faculty
- 20 Visiting assistant professor and Visitors
- ~ 110 PhD students
- ~ 15 Ms students
- ~ FF Distance students

The department graduates about 16 PhD students, 10 campus MS students, and 15 distance MS students each year.

Research Groups (PhD students per group)

- Algebra & Combinatorics (25)
- Applied Math & Interdisciplinary (11)
- Approximation Theory (1)
- Functional Analysis (14)
- Geometry & Topology (13)
- Groups & Dynamics (6)
- Number Theory (10)
- Numerical Analysis & Scientific Computation (15)
- PDE & Math Physics (8)
- Probability (7)
- Several Complex Variables (6)

Active Seminars

- Algebra and Combinatorics
- Algebraic Geometry
- Banach Spaces
- First Year Graduate Students
- Free Probability
- Geometry
- Graduate Student Organization
- Groups and Dynamics
- Inverse Problems and Machine Learning
- Linear Analysis
- Linear Analysis
- Mathematical Physics and Harmonic Analysis
- Noncommuntative Geometry
- Nonlinear Partial Differential Equations
- Number Theory
- Numerical Analysis
- Probability
- Many Working seminars
- Many Colloquium series

Initial Course Scheduling

Advisors

- MS students
  - Andrea Bonito
- PhD students
  - Algebra / Topology / Geometry, Igor Zelenko
  - Number Theory / Groups and Dynamics, Riad Masri
  - Analysis, Thomas Schlumprecht
  - PDE / Applied / Numerical Analysis / Appx, Andrea Bonito

If you are unsure or would like to change the area you applied for, no problem, contact me

Ms Schedules

- For MS students, course schedules are determined by the MS track chosen
  - Traditional
  - Teaching
  - Computational
  - Industrial
  - Math Biology
- Requirements for this tracks

http://www.math.tamu.edu/graduate

PhD Schedules

For PhD students, first-year schedules are mostly determined by the qualifying-exam and breadth requirements. These are characterized by four broad categories

- Algebra, discrete math, number theory
- Real and complex analysis
- Differential geometry, topology
- Applied and numerical analysis

Qualifying Exam Requirements

- Students must pass two qualifying exams from two different areas by the end of their second year in the program.
- Each qualifying exam is based on a two-semester sequence.
- The five options are
  - Algebra (M653-M654)
  - Applied and Numerical Analysis (M617-M618)
  - Complex Analysis (M617-M618)
  - Real Analysis (M607-M608)
  - Differential Geometry and Topology (M636-M622)

Breadth Requirements

- As a breadth requirement, students must take at least one approved course from the two areas they do not take qualifying exams in.
- Students who have already completed introductory level courses in a breadth area should take a more advanced course in the area.

Example 1: Applied Math

- Any student in applied math will take the applied/numerical analysis qualifying exam and this is based on two courses
  - M641 – Analysis for Applications I
  - M610 – Numerical Partial Differential Equations
- Many students in applied math will take the analysis qualifying exam, which is based on
  - M607 – Real Variables I
  - M608 – Real Variables II

Example 1: Applied Math

- If a student takes the applied/numerical and analysis qualifying exams, he/she will need to fulfill breadth requirements in two areas
  - Algebra, discrete math, number theory
  - Differential geometry, topology
- Some options for algebra, discrete math, number theory
  - M653: Algebra I
  - M626: Analytic number theory
- Some options for differential geometry, topology
  - M622: Differential geometry I
  - M636: Topology I

Example 1: Applied Math

Here is an example first-year schedule:

- Fall 2020
  - M607, Real Variables I
  - M641, Analysis for Applications I
  - M653, Algebra I
- Spring 2021
  - M608, Real Variables II
  - M610, Numerical PDE
  - M642, Analysis for Applications II

This student would be prepared to take two qualifying exams and would only have one breadth requirement left for the second year.

Example 2: Algebraic Geometry

- Any student studying algebraic geometry will take the qualifying exam in algebra, which is based on the courses
  - M653-M654: Algebra I-II
- Many students in applied math will take the differential geometry and topology qualifying exam, which is based on
  - M622 – Differential Geometry I
  - M636 – Topology I

Example 2: Algebraic Geometry

- If a student takes the algebra and differential geometry / topology qualifying exams, he/she will need to fulfill breadth requirements in two areas
  - Real or complex analysis
  - Applied / Numerical Analysis
- Some options for real and complex analysis
  - M607: Real variables I
  - M617: Theory of functions of complex variables
- Some options for applied and numerical analysis
  - M609: Numerical analysis
  - M610: Numerical methods for partial differential equations
  - M641: Analysis for applications

Example 2: Algebraic Geometry

Here is an example first-year schedule:

- Fall 2020
  - M607, Real Variables I
  - M636, Topology I
  - M653, Algebra I
- Spring 2021
  - M622, Differential Geometry
  - M648, Computational algebraic geometry
  - M654, Algebra II

This student would be prepared to take two qualifying exams and would only have one breadth requirement left for the second year.

HOWDY

A registration tutorial is available at

http://registrar.tamu.edu/Courses,-Registration,-Scheduling/Registration-Enrollment-Information/Registration-Tutorials

Scams and Frauds

Targets

- Incoming students, and especially incoming international students, are often targeted by scams and frauds.
- These are typically initiated by phone or email, and can involve
  - Passport and visa status
  - Credit cards
  - Banking
  - US Taxes
  - Computer accounts
  - Etc.

How

- Individuals perpetrating such activities can be highly aggressive and threatening.
- Some common rules of thumb
  - No reputable agency will call you and ask for information such as a credit card number or social security number, so if this happens, it's a scam
  - Double check links in emails you receive to ensure they're valid; the safest thing is to look up the agency's contact information and re-type it.
- If you suspect you are being targeted, please contact me immediately.