# Math Department Meeting Agenda (Minutes in bold)



Approximate length: 1 hour 30 minutes

### Call to Order:

Members (bold present): Brandi Bailes, Jodi Hanley, Shirley Juan, Danielle McCoy, Steve Ramirez, Scott Rippy, Josh Robles

Guest: Rachel Buiter

# DLM - Robles (0800)

Discussion of pilot DLM class for Robles

# Admin Report - Yamamoto/Horan (0810)

Yamamoto:

- Nov. 13 (new date) Chili Cook-off 11:30 a.m. 1 p.m. Donations of chili and desserts are needed. Contact Laura Van Genderen to sign up!
- Dec. 2 District Chancellor's Holiday Party Recognition Awards Toy Drive; 9:30 11:30 a.m.; new district office
- Dec. 13, 14, 15 CHC Theater Department "Lysistrata" Friday and Saturday night at 8 p.m., Sunday at 2 p.m.

Horan:

Great news, Elaine has agreed to fund and support the calculator project (I named it "Henry's Calculators"). We will work on procuring the calculators and getting them in place in time for the Spring semester.

Thanks for your and the department's support on this project!

### STEM Center - Wurtz (0815)

Request to get faculty input on how the STEM center can best support math students.

# COP Report - Rippy (0835)

What should be the focus of the Community of Practice in Spring?

### Milloy Award Plaque - Bailes (0845)

Where should the plaque be placed? What plan would we like to use for updating the plaque in the future?

### SLO's Data Review - Bailes (0855)

Review of the results of the SLO data from 2018-2019 year.

### SLO's Reorganization - Bailes (0910)

From the SLO webpage:

Creating a Flow of Learning Evidence (2007)

- <u>1. Define/Refine SLOs</u>
- <u>2. Design Assessments and Rubrics</u>
- <u>3. Implement Assessment Plans</u>
- <u>4. Analyze Learning Evidence</u>
- <u>5. Identify Gaps in Student Performance</u>
- 6. Document Results and Plan Changes

Consider updating SLO's for consistency and ease of analysis

- Lecture
  - O Numerical Literacy:
  - O Graphical Literacy:
  - O Data Literacy:
  - O Application of Methods:
  - O Critical Thinking:

🔴 Lab:

O Application of Methods:

- Co-req
  - O Numerical Literacy:
  - O Successful support:

# SLO's

#### **MATH 085**

- Construct, mathematical models to represent relationships in quantitative data at the pre statistics level
- 2. Evaluate, mathematical models to represent relationships in quantitative data at the level appropriate pre -statistics
- Analyze mathematical models to represent relationships in quantitative data appropriate to the pre -statistics level
- Use the properties of algebra to simplify expressions, solve equations, and answer questions in context.
- 5. Formulate questions that can be addressed with data, then organize , display, and analyze relevant data to answer these questions and communicate results at the pre -statistics level.
- 6. Demonstrate numerical, algebraic, or geometric reasoning skills to support statistical analysis at the pre -statistics level as appropriate t o the question being investigated.

#### **MATH 095**

- 1. identify various types of algebraic expressions/equations as appropriate to the course.
- apply the appropriate strategy to solve, manipulate, or graph the various types of algebraic expressions/equations.
- 3. use the above outcomes to model real -world type applications.

#### **MATH 995**

 apply the skills covered in 995L to improve their ability to successfully complete MATH 095 and future math courses.

#### **MATH 102**

- identify and sketch the graphs of polynomial, rational, expon ential, and logarithmic functions as well as graphs of the conic sections.
- apply appropriate techniques for solving exponential, logarithmic, and algebraic equations with regard to the course outline.
- recognize, define, and use formal mathematics notation as appropriate to the course outline

**MATH 902** 

- 1. Simplify or reorganize expressions.
- 2. Solve equations and inequalities.
- 3. Solve systems of equations.
- 4. Graph functions and identify its defining elements (including domain and range).

#### MATH 103

- 1. The student will identify and sketch the graphs of the trigonometric functions.
- The student will apply appropriate techniques to determine and/or construct the six trigonometric functions of commonly used angles as appr opriate to the course outline.
- 3. The student will apply appropriate techniques for solving trigonometric equations.
- The student will recognize, define, and use formal mathematical notation as appropriate to the course outline.

#### **MATH 903**

 apply specific skil ls to improve their ability to complete the required problems and exams for the linked course.

#### **MATH 110**

- Describe the basic features of data, and provide simple summaries about the sample and measures.
- Calculate and interpret confidence intervals for a var iety of variables, including multiple variable situations.
- 3. Apply probabilities, using basic probability rules and distributions, to real world situations.
- Complete hypothesis testing for a variety of variables, including multiple variable and nonparametric hypothesis testing.
- 5. Determine when linear regression is appropriate and apply linear regression to real world situations.

#### **MATH 110H**

- Describe the basic features of data, and provide simple summaries about the sample and measures.
- Calculate and interpret confidence intervals for a variety of variables, including multiple variable situations.
- 3. Apply probabilities, using basic probability rules and distributions, to real world situations.
- Complete hypothesis testing for a variety of v ariables, including multiple variable and nonparametric hypothesis testing.
- Determine when linear regression is appropriate and apply linear regression to real world situations.

**MATH 910** 

- 1. Formulate questions that can be addressed with data, then organize, display, and analyze relevant data to address these questions and communicate results.
- 2. Apply numerical and algebraic reasoning and computational skills to support statistical analysis.
- 3. Construct, use, and interpret mathematical models, specifically linear functions to represent and communicate relationships in quantitative data.

#### **MATH 115**

- 1. Students will evaluate logical statements.
- 2. Student will use the definition of set operations and apply them to analyze surveys.
- Students will use the principles of proba bility theory to compute permutations and combinations.

#### **MATH 915**

 apply the skills needed in MATH 915 to improve their ability to successfully complete MATH 115 and future math courses

#### MATH 117

1. Utilize appropriate technology to present and analyze stati stical data.

#### **MATH 141**

- Apply the concepts of limits to solve problems involving functions unique to business applications and interpret these concepts graphically.
- 2. Apply the concepts of derivatives to solve problems involving functions unique to business applications and interpret these concepts graphically.
- 3. Apply the concepts of integrals to solve problems involving functions unique to business applications and interpret these concepts graphically.

#### MATH 160

- identify and sketch the graphs of both algebraic and transcendental functions including translations.
- apply appropriate techniques for solving different types of algebraic and transcendental equations.
- simplify algebraic and transcendental expressions at the level indicated on the course outline.
- recognize, define, and use formal mathematical notation as appropriate to the course outline

#### Math 200

 Students will be able to construct formal mathematical proofs, including direct proof, proof by contrapositive, proof by contradiction, and proof by induction.

- 2. Students will be able to analyze a problem to create relevant recurrence equations.
- 3. Students will be able to apply the binomial theorem to independent events and Bayes' theorem to dependent events.
- 4. Students will be able to compute permutations and combinations of a set and interpret the meaning in the context of the particular application.

#### **MATH 250**

- 1. evaluate limits, including proofs, for linear functions.
- 2. determine and analyze derivatives as appropriate to first year calculus.
- recognize, define, and use formal mathematical notation as appropriate to the co urse outline

#### **MATH 251**

- 1. The student will evaluate and analyze integrals as appropriate to first year calculus.
- The student will evaluate and analyze sequences and series and their relation to functions as appropriate to first year calculus.
- 3. The student wil I recognize, define, and use formal mathematical notation as appropriate to the course outline.

#### **MATH 252**

- 1. Using techniques of multivariable calculus, the student will apply derivatives and integration to functions of several variables.
- The student will recognize, define, and use formal mathematical notation as appropriate to the course outline.

#### **MATH 255**

1. The student will analyze mathematical operations, graphs, and applications with respect to differential and integral calculus using a computer algebra system.

#### **MATH 265**

- 1. Apply the fundamental properties of matrices to problems appropriate to linear algebra.
- 2. To recognize, define and use formal mathematical notation as appropriate to the course outline.

#### **MATH 266**

- 1. Analyze a differential e quation and then select and implement an appropriate method to solve the equation.
- Recognize, define, and use formal mathematical notation as appropriate to the course outline.

### Announcements - (0920)

### Adjourn: (0930)

### Future Agenda Items

- 1. Troy and Ernesto will talk to us about the AP A lot of 4 years will not take BC credit for Calc II.
- 2. Need volunteers to review the FAQ on the website for updates

#### Math Department Meeting Norms

- Meetings should start and end on time.
- If possible, all documents and resources needed for the agenda should be linked to the appropriate agenda item.
- Members should come prepared and be fully present for the duration of the meeting.
- Members should communicate openly and honestly, respectfully, one at a time, and without sidebars.
- Meeting discussions should stay on topic, to the point in order to be respectful of time.
  - Agenda topics should be kept within the time frame assigned.
    - Topics that need further time may be moved to future agendas. <u>OR</u>

- Members may vote to move upcoming agenda items to future agendas to extend the time allotted for the current item.
- Meeting minutes and discussion should give clear direction. By the end of the meeting,
  - members should know the tasks they are to complete (if any) and those tasks should be clearly documented.
  - members should understand the direction of the department on department related matters so as to comfortably represent the department in other committees or job duties as needed.