

# Workshops

## Applied Mathematics for the Sciences

Open to all Students  
Wednesdays 2:30pm – 3:30pm  
E300

### Week #1 – September 10<sup>th</sup>

Topics:

- A. Exponents with base 10
- B. Logarithms with base 10
- C. Metric Conversions

### Week #2 – September 17<sup>th</sup>

Topics:

- A. Exponents with base 10
- B. Logarithms with base 10
- C. Metric Conversions
- D. Calculating a quantity for mass, volume and/or heat
- E. Solving equations for a quantity (x, y, mass, change in Temperature)
- F. Direct and Indirect Proportionality
- G. Substitution
- H. Using substitution determine when a variable increases or decreases

### Week #3 – September 24<sup>th</sup>

Topics:

- A. Exponents with base 10
- B. Logarithms with base 10
- C. Using substitution determine when a variable increases or decreases
- D. Proportionality with exponents

### Week #4 – October 1<sup>st</sup>

- A. Solving proportional equations with roots for a variable
- B. Solving an equation with square roots for a variable

## **Week #5 – October 8<sup>th</sup>**

Open Review

## **Week #6 – October 15<sup>th</sup>**

Topics:

- A. Word problems with Metric system conversions
- B. Word problems with percents

## **Week #7 – October 22<sup>nd</sup>**

Topics:

- A. Word problems with Metric system conversions
- B. Word problems with percents
- C. Vectors
- D. Percents
- E. Graph interpretation
- F. Solving equations for unknowns using substitution

## **Week #8 – October 29<sup>th</sup>**

Topics:

- A. Matrix method for systems (Gauss-Jordan elimination)
- B. Solving an equation for  $x$

## **Week #9 – November 5<sup>th</sup>**

Open Review

## **Week #10 – November 12<sup>th</sup>**

Topics:

- A. Solving logarithmic equations
- B. Solving equations with exponents and fractions

## **Week #11 – November 19<sup>th</sup>**

Topics:

- A. Word problems using proportionality and percents

## **Week #12 – November 26<sup>th</sup>**

Topics:

- A. Proportionality
- B. Word problems with percents
- C. Solving for an unknown variable
- D. Fractions

## **Week #13 – December 3<sup>rd</sup>**

Topics:

- A. Open Review

## **Week #14 – December 10<sup>th</sup>**

Topics:

- A. Dimensional analysis