Syllabus

Mathematic Applications in Agriculture Fabric & Natural Resources

I. Mathematics Knowledge and Skills Required to Solve Problems Related to the Agriculture, Food, and Natural Resources Industries

1. Using Addition, Subtraction, Division and Multiplication as a Manipulative in Calculations

2. Basic Arithmetic Operations

3. Using Relational Expressions

4. Using Statistical and Data Analysis to Solve Problems

5. Analysis of Mathematical Problem Statements

6. Construction and Analysis of Charts, Tables and Graphs

7. Analysis of Data in Interpreting Operational Documents

II. Mathematical Problem Solving Related to Agribusiness Systems and Career Opportunities

1. Using Mathematical Relationships to Solve Daily Problems Inherent to Agribusiness Systems

2. Applying Algebraic Applications Linear and Exponential Functions Related to Agribusiness Systems

3. Using Statistical and Data Analysis for the Evaluation of Agribusiness Systems

III. Mathematical Problem Solving Related to Animal Systems and Career Opportunities

1. Using Mathematical Relationships to Solve Daily Problems Inherent to Animal Systems

2. Applying Algebraic Applications Related to Animal Systems

3. Using Geometric Principles to Solve Problems Inherent to Animal Systems

4. Using Statistical and Data Analysis to Solve Problems in Animal Systems

IV. Mathematical Problem Solving Related to Environmental Service Systems and Career Opportunities

1. Using Mathematical Relationships to Solve Daily Problems Inherent to Environmental Service Systems

2. Applying Algebraic Applications Related to Environmental Service Systems

3. Using Geometric Principles to Solve Problems Inherent to Environmental Service Systems

4. Using Statistical and Data Analysis to Solve Problems in Environmental Service Systems

V. Mathematical Problem Solving Related to Food Products and Processing Systems and Career Opportunities

1. Using Mathematical Relationships to Solve Daily Problems Inherent to Food Products and Processing Systems

2. Applying Algebraic Applications Related to Food Products and Processing Systems

3. Using Geometric Principles to Solve Problems Inherent to Food Products and Processing Systems

4. Using Statistical and Data Analysis to Solve Problems in Food Products and Processing Systems

VI. Mathematical Problem Solving Related to Natural Resources Systems and Career Opportunities

1. Using Mathematical Relationships to Solve Daily Problems Inherent to Natural Resource Systems

2. Applying Algebraic Applications Related to Natural Resource Systems

3. Using Geometric Principles to Solve Problems Inherent to Natural Resource Systems

4. Using Statistical and Data Analysis to Solve Problems in Natural Resource Systems

VII. Mathematical Problem Solving Related to Plant Systems and Career Opportunities

1. Using Mathematical Relationships to Solve Daily Problems Inherent to Plant Systems

2. Applying Algebraic Applications Related to Plant Systems

3. Using Geometric Principles to Solve Problems Inherent to Plant Systems

4. Using Statistical and Data Analysis to Solve Problems in Plant Systems

VIII. Mathematical Problem Solving Related to Power, Structural, and Technical Systems and Career Opportunities

1. Using Mathematical Relationships to Solve Daily Problems Inherent to Power, Structural, and Technical Systems

2. Applying Algebraic Applications Related to Power, Structural, and Technical Systems

3. Using Geometric Principles to Solve Problems Inherent to Power, Structural, and Technical Systems

4. Using Statistical and Data Analysis to Solve Problems in Power, Structural, and Technical Systems

IX. Development of Supervised Agriculture Experience Program (SAEP)

1. Using the Supervised Agricultural Experience Program as an Experiential Learning Activity

2. Proper Record-Keeping Skills

3. Design and Customize Record-Keeping System for the SAEP

4. Participation in Youth Leadership Opportunities

5. Local Program of Activities