Assessment Topics

Accounting

BUSA 7 Principles of Accounting – Financial

- Inventory Costing Methods (FIFO, LIFO, Weighted Average)
- Bank Reconciliation
- Depreciation Methods (Straight Line, Double Declining, Units-of-Production)
- Paid-in Capital for Issuing Stock

BUSA 8 Principles of Accounting – Managerial

- Factory Overhead
- Absorption vs. Variable Costing
- Cost-Volume-Profit Relationships (contribution margin)
- Budgeting (static)

Chemistry

CHEM 40 Introduction to General Chemistry

- Significant figures and unit conversions
- Reaction types and balancing chemical equations
- Solution and gas stoichiometry calculations
- Calorimetry calculations
- Lewis dot structure and VSEPR Theory
- Electron configurations
- Reduction-oxidation reactions
- pH calculations

CHEM 50 General Chemistry I

- Solution and gas stoichiometry calculations
- Intermolecular forces and their relationship to macroscopic characteristics
- Lewis dot structure and VSEPR Theory
- Periodic trends
- Hess's Law and enthalpy calculations
- Reduction-oxidation reactions
- Hybridization, sigma/pi bonds, and molecular orbital theory

CHEM 51 General Chemistry II

- Rate Laws and Integrated Rate Laws
- Equilibrium calculations
- Acid-base titration calculations

- Gibb's Free Energy relationships, enthalpy, entropy, and spontaneity
- Electrochemistry calculations

English

- Brainstorming techniques
- Thesis statements and topic sentences
- Sentence combining integrating quotes
- Evaluating sources
- Logical fallacies
- Summary vs. analysis
- Grammar
 - o Parts of speech
 - Sentence types
 - Sentence boundaries
 - o ESL errors
 - o Punctuation
 - o Pronoun case

Math

STAT C1000 Introduction to Statistics (formerly Math 110 Elementary Statistics)

- Probability
 - Probability using Two-Way Tables
 - o Multiplication Rule
 - o Addition Rule
 - o Conditional Probability
 - Rule of Complements
- Binomial Probability
- Normal Probability
- Central Limit Theorem
- Confidence Intervals (Proportion, Mean)
- Hypothesis Tests (Proportion, Mean)

Math 180 Calculus and Analytic Geometry I

- Limits
- Squeeze/Sandwich Theory
- Derivatives and Rates of Change
 - Velocities
 - o Slope of the Tangent Line
- Limit Definition of the Derivative
- Implicit Differentiation
- Related Rates

- Maximum and Minimum Values
- Mean Value Theorem
- Optimization
- Indefinite Integrals
- Fundamental Theorem of Calculus

Math 181 Calculus and Analytic Geometry II

- Techniques of Integration
- Improper Integrals
- Volumes using Cross-Sections
- Disk, Washer, and Shell Method
- Work
- Areas and Lengths in Polar Coordinates
- Series
- Taylor
- Power Series

Math 280 Calculus and Analytic Geometry III

- Equations of Lines and Planes
- Arc Length of a Vector Function
- Derivatives and Integrals of Vector Functions
- Limits
- Directional Derivatives
- Line Integrals of Vector Fields
 - o Work
- Maximum and Minimum Values
- Double Integrals
- Triple Integrals

Physics

Physics 2AG General Physics

- Kinematics and projectile motion
- Newton's Laws and associated calculations
- Position, velocity, acceleration, and force vs. time graph analysis
- Conservation of energy, translational and rotational
- Conservation of momentum
- Torque and static equilibrium

Physics 4A Engineering Physics

- Kinematics and projectile motion
- Extended Objects (Gravitation and Moment of Inertia)

- Elastic and inelastic collisions
- Newton's Laws and Conservation Laws calculations
- Center of mass