MCAT mapping by course number (broad topics, see individual department lists for details)

UD Course Number	Topics covered
BIO 151 and 151L	• Amino Acids • Protein Structure • Non-Enzymatic Protein Function • Enzyme Structure and Function • Control of Enzyme Activity • Nucleic Acid Structure and Function • DNA Replication • Repair of DNA • Genetic Code • Transcription • Translation • Eukaryotic Chromosome Organization • Control of Gene Expression in Prokaryotes • Control of Gene Expression in Eukaryotes • Recombinant DNA and Biotechnology • Evidence that DNA is Genetic Material • Mendelian Concepts • Meiosis and Other Factors Affecting Genetic Variability • Analytic Methods • Evolution • Principles of Bioenergetics • Carbohydrates • Glycolysis, Gluconeogenesis, and the Pentose Phosphate Pathway • Principles of Metabolic Regulation • Citric Acid Cycle • Metabolism of Fatty Acids and Proteins • Oxidative Phosphorylation • Hormonal Regulation and Integration of Metabolism • Plasma Membrane • Membrane-Bound Organelles and Defining Characteristics of Eukaryotic Cells • Cytoskeleton • Tissues Formed From Eukaryotic Cells • Cell Theory • Classification and Structure of Prokaryotic Cells • Growth and Physiology of Prokaryotic Cells • Genetics of Prokaryotic Cells • Virus Structure • Viral Life Cycle • Mitosis • Biosignalling (oncogenes, apoptosis)

MCAT mapping by course number (broad topics, see individual department lists for details)

	• Nerve Cell • Biosignalling(Gated ion channels, Receptor enzymes, G protein-coupled receptors) • Lipids • Nucleotides and Nucleic Acids • Enzymes
BIO 152 and 152L	• Mendelian Concepts • Meiosis and Other Factors Affecting Genetic Variability • Analytic Methods • Evolution • Reproductive System(cell cycle) • Embryogenesis • Mechanisms of Development • Nervous System: Structure and Function • Endocrine System: Hormones and Their Sources • Endocrine System: Mechanisms of Hormone Action • Respiratory System • Circulatory System • Lymphatic System
CHM 123	• Work • Energy • Gas Phase • Light, Electromagnetic Radiation • Atomic Nucleus • Electronic Structure • The Periodic Table – Classification of Elements into Groups by Electronic Structure • The Periodic Table – Variations of Chemical Properties with Group and Row • Stoichiometry • Ions in Solutions • Titration • Covalent Bond • Energy Changes in Chemical Reactions – Thermochemistry, Thermodynamics
CHM 124	• Plasma Membrane • Electrochemistry • Equilibrium • Electrochemistry • Acid/Base Equilibria • Solubility

MCAT mapping by course number (broad topics, see individual department lists for details)

	• Titration • Liquid Phase – Intermolecular Forces • Energy Changes in Chemical Reactions – Thermochemistry, Thermodynamics • Rate Processes in Chemical Reactions – Kinetics and Equilibrium
CHM 313	• Molecular Structure and Absorption Spectra • Covalent Bond • Separations and Purifications • Alcohols
CHM 314	• Amino Acids • Nucleic Acid Structure and Function • Carbohydrates • Nucleotides and Nucleic Acids • Amino Acids, Peptides, Proteins • Carbohydrates • Aldehydes and Ketones • Carboxylic Acids • Acid Derivatives(Anhydrides, Amides, Esters) • Phenols • Polycyclic and Heterocyclic Aromatic Compounds • Phosphorus Compounds
PHY 201	• Translational Motion • Equilibrium • Work • Energy • Fluids
PHY 202	• Electrostatics • Circuit Elements • Sound • Light, Electromagnetic Radiation • Geometrical Optics • Electronic Structure
CHM 420	• Amino Acids • Protein Structure • Non-Enzymatic Protein Function • Enzyme Structure and Function • Control of Enzyme Activity • Nucleic Acid Structure and Function • Evidence that DNA is Genetic Material • Principles of Bioenergetics • Carbohydrates • Glycolysis, Gluconeogenesis, and the

MCAT mapping by course number (broad topics, see individual department lists for details)

	Pentose Phosphate Pathway • Principles of Metabolic Regulation • Citric Acid Cycle • Metabolism of Fatty Acids and Proteins • Oxidative Phosphorylation • Hormonal Regulation and Integration of Metabolism • Plasma Membrane • Membrane-Bound Organelles and Defining Characteristics of Eukaryotic Cells • Electrochemistry • Biosignalling • Lipids • Equilibrium • Electrochemistry • Acid/Base Equilibria • Titration • Separations and Purifications • Nucleotides and Nucleic Acids • Amino Acids, Peptides, Proteins • The Three-Dimensional Protein Structure • Non-Enzymatic Protein Function • Lipids • Carbohydrates • Phenols • Enzymes • Principles of Bioenergetics
PSY 101	• Sensory Processing • Vision • Hearing • Other Senses • Perception • Attention • Cognition • Consciousness • Memory • Language • Emotion • Stress • Biological Bases of Behavior • Personality • Psychological Disorders • Motivation • Attitudes • How the Presence of Others affects Individual Behavior

MCAT mapping by course number (broad topics, see individual department lists for details)

	• Group Processes • Socialization • Habituation and Dishabituation • Associative Learning • Observational Learning • Theories of Attitude and Behavior Change • Self-Concept and Identity • Formation of Identity • Attribution Behavior to Persons or Situations • Prejudice and Bias • Processes Related to Stereotypes • Elements of Social Interaction • Self-presentation and Interacting with Others • Social Behavior • Discrimination
SOC 101	• Culture (assimilation, multiculturalism, subcultures) • Socialization • Formation of Identity • Prejudice and Bias • Elements of Social Interaction • Discrimination • Theoretical Approaches • Social Institutions • Culture (material, symbolic, social groups) • Demographic Structure of Society • Demographic Shifts and Social Change • Spatial Inequality • Social Class
BIO 301	• Mendelian Concepts
BIO 312 and 312L	• Amino Acids • Protein Structure • Non-Enzymatic Protein Function • Nucleic Acid Structure and Function • DNA Replication • Repair of DNA • Genetic Code • Transcription • Translation • Eukaryotic Chromosome Organization • Control of Gene Expression in Prokaryotes • Control of Gene Expression in Eukaryotes • Recombinant DNA and Biotechnology • Evidence that DNA is Genetic Material

MCAT mapping by course number (broad topics, see individual department lists for details)

	• Mendelian Concepts • Meiosis and Other Factors Affecting Genetic Variability • Analytic Methods • Evolution • Genetics of Prokaryotic Cells (312L) • Mitosis • Biosignalling (Gated ion channels, Receptor enzymes, G protein-coupled receptors) • Nucleotides and Nucleic Acids • Enzymes • Regulatory genes and behavior
BIO 403 and 403L	• Amino Acids • Protein Structure • Non-Enzymatic Protein Function • Analytic Methods (403L) • Glycolysis, Gluconeogenesis, and the Pentose Phosphate Pathway • Principles of Metabolic Regulation • Citric Acid Cycle • Metabolism of Fatty Acids and Proteins • Oxidative Phosphorylation • Hormonal Regulation and Integration of Metabolism • Plasma Membrane • Membrane-Bound Organelles and Defining Characteristics of Eukaryotic Cells • Genetics of Prokaryotic Cells (403) • Biosignalling (oncogenes, apoptosis) • Reproductive System (cell cycle) • Nerve Cell • Electrochemistry • Lipids • Endocrine System: Hormones and Their Sources • Endocrine System: Mechanisms of Hormone Action • Respiratory System • Circulatory System • Lymphatic System • Digestive System • Excretory System • Reproductive System(male-female, hormonal control) • Muscle System

MCAT mapping by course number (broad topics, see individual department lists for details)

	• Specialized Cell-Muscle Cell • Skin System • Circulatory System • Specialized Cell – Nerve Cell • Enzymes • Sensory Processing • Vision • Hearing • Other Senses • Cognition • Consciousness • Memory • Language • Emotion • Stress • Biological Bases of Behavior
BIO 411 and 411L	• Amino Acids • Protein Structure • Non-Enzymatic Protein Function • Enzyme Structure and Function • Control of Enzyme Activity • Repair of DNA • Genetic Code • Control of Gene Expression in Prokaryotes • Control of Gene Expression in Eukaryotes • Recombinant DNA and Biotechnology • Analytic Methods (411L) • Principles of Bioenergetics • Glycolysis, Gluconeogenesis, and the Pentose Phosphate Pathway • Principles of Metabolic Regulation • Citric Acid Cycle • Metabolism of Fatty Acids and Proteins • Oxidative Phosphorylation • Plasma Membrane • Cell Theory • Classification and Structure of Prokaryotic Cells • Growth and Physiology of Prokaryotic Cells • Genetics of Prokaryotic Cells • Virus Structure • Viral Life Cycle • Biosignalling (oncogenes, apoptosis) • Lipids • Immune System • Gas Phase (fluids in physiological

MCAT mapping by course number (broad topics, see individual department lists for details)

	processes) • Enzymes • Rate Processes in Chemical Reactions – Kinetics and Equilibrium
BIO 415	• Nerve Cell • Specialized Cell – Nerve Cell • Sensory Processing • Vision • Hearing • Other Senses • Cognition • Consciousness • Memory • Language • Emotion • Stress • Biological Bases of Behavior • Associative Learning
BIO 427	• Non-Enzymatic Protein Function • Immune System
BIO 440	• Amino Acids • Protein Structure • DNA Replication • Repair of DNA • Plasma Membrane • Membrane-Bound Organelles and Defining Characteristics of Eukaryotic Cells • Cytoskeleton • Tissues Formed From Eukaryotic Cells • Cell Theory • Mitosis • Biosignalling (oncogenes, apoptosis) • Biosignalling(Gated ion channels, Receptor enzymes, G protein-coupled receptors) • Specialized Cell-Muscle Cell
BIO 442	• Eukaryotic Chromosome Organization • Tissues Formed From Eukaryotic Cells • Mitosis • Embryogenesis • Mechanisms of Development
BIO 462	• Protein Structure • Enzyme Structure and Function • Control of Enzyme Activity • Nucleic Acid Structure and Function • DNA Replication • Repair of DNA

MCAT mapping by course number (broad topics, see individual department lists for details)

	• Genetic Code • Transcription • Translation • Eukaryotic Chromosome Organization • Control of Gene Expression in Prokaryotes • Control of Gene Expression in Eukaryotes
BIO 470	• DNA Replication
BIO 475 and 475L	• Analytic Methods (475L) • Reproductive System (cell cycle) • Endocrine System: Hormones and Their Sources • Endocrine System: Mechanisms of Hormone Action • Respiratory System • Circulatory System • Digestive System • Excretory System • Reproductive System(male-female, hormonal control) • Muscle System • Specialized Cell-Muscle Cell • Skeletal System • Skin System • Biological Bases of Behavior
CHM 451	• Amino Acids • Protein Structure • Non-Enzymatic Protein Function • Enzyme Structure and Function • Control of Enzyme Activity • Nucleic Acid Structure and Function • Evidence that DNA is Genetic Material • Principles of Bioenergetics • Carbohydrates • Glycolysis, Gluconeogenesis, and the Pentose Phosphate Pathway • Principles of Metabolic Regulation • Plasma Membrane • Membrane-Bound Organelles and Defining Characteristics of Eukaryotic Cells • Electrochemistry • Biosignalling • Lipids • Equilibrium • Electrochemistry • Acid/Base Equilibria • Titration

MCAT mapping by course number (broad topics, see individual department lists for details)

	• Separations and Purifications • Nucleotides and Nucleic Acids • Amino Acids, Peptides, Proteins • The Three-Dimensional Protein Structure • Non-Enzymatic Protein Function • Lipids • Carbohydrates • Enzymes • Principles of Bioenergetics
CHM 452	• Non-Enzymatic Protein Function • Enzyme Structure and Function • Control of Enzyme Activity • Nucleic Acid Structure and Function • DNA Replication • Repair of DNA • Genetic Code • Transcription • Translation • Eukaryotic Chromosome Organization • Evidence that DNA is Genetic Material • Principles of Metabolic Regulation • Citric Acid Cycle • Metabolism of Fatty Acids and Proteins • Oxidative Phosphorylation • Hormonal Regulation and Integration of Metabolism • Lipids (structure) • Nucleotides and Nucleic Acids • Lipids (types) • Phenols • Enzymes
CHM 462L	• Protein Structure • Enzyme Structure and Function • Genetic Code • Recombinant DNA and Biotechnology • Separations and Purifications • Enzymes
PSY 321	• Perception • Attention • Cognition • Consciousness • Memory • Language • Biological Bases of Behavior
PSY 322	• Attention • Biological Bases of Behavior

MCAT mapping by course number (broad topics, see individual department lists for details)

	• Habituation and Dishabituation • Associative Learning • Observational Learning
PSY 323	• Sensory Processing • Vision • Hearing • Other Senses • Perception • Attention • Biological Bases of Behavior
PSY 341	• Attitudes • How the Presence of Others Affects Individual Behavior • Group Processes • Culture (assimilation, multiculturalism, subcultures) • Socialization • Theories of Attitude and Behavior Change • Self-Concept and Identity • Formation of Identity • Attribution Behavior to Persons or Situations • Prejudice and Bias • Processes Related to Stereotypes • Elements of Social Interaction • Self-presentation and Interacting with Others • Social Behavior
PSY 351	• Cognition • Language • Stress • Biological Bases of Behavior • Habituation and Dishabituation • Associative Learning • Observational Learning • Self-Concept and Identity • Formation of Identity
PSY 361	• Personality • Self-Concept and Identity • Formation of Identity
PSY 366	• Emotion • Stress • Biological Bases of Behavior • Psychological Disorders • Motivation • Attitudes

MCAT mapping by course number (broad topics, see individual department lists for details)

	• How the Presence of Others Affects Individual Behavior • Attributing Behavior to Persons or Situations • Health Disparities • Healthcare Disparities
PSY 422	• Vision • Hearing • Other Senses • Consciousness • Stress • Biological Bases of Behavior • Psychological Disorders
SOC 303	• Theoretical Approaches
SOC 322	• Gender shapes expression • Sexual orientation
SOC 325	• Stigma and deviance • Conformity and obedience
SOC 328	• Prejudice and Bias • Demographic Structure of Society (Race and Ethnicity)
SOC 330	• Demographic Structure of Society (Age)
SOC 331	• Social Institutions (Family)
SOC 332	• Gender shapes expression • Demographic Structure of Society (Gender)
SOC 333	• Demographic Structure of Society (Sexual Orientation)
SOC 334	• Social Institutions (Religion)
SOC 337	• Social Institutions (Government & Economy)
SOC 339	• Prejudice and Bias • Discrimination • Social Class
SOC 340	• How the Presence of Others Affects Individual Behavior • Group Processes • Socialization • Self-Concept and Identity • Formation of Identity • Elements of Social Interaction • Self-presentation and Interacting with Others • Culture (Language and symbols)
SOC 341	• Self-Concept and Identity

MCAT mapping by course number (broad topics, see individual department lists for details)

	• Formation of Identity • Self-presentation and Interacting with Others
SOC 342	• Social movements
SOC 351	• Urbanization • Racial segregation(neighborhoods)
SOC 368	• Immigration status
SOC 435	• Globalization • Global inequalities
SWK 335	• Environmental justice (location and exposure to health risks)
ANT 150	• Culture (assimilation, multiculturalism, subcultures) • Prejudice and Bias • Culture shapes expression • Culture (material, symbolic, social groups)
ANT 300	• Evolution and human culture
ANT 315	• Verbal and nonverbal communication • Language and symbols