

PREMED PEERS



STUDENT HANDBOOK

Premed Peers is a registered non-profit organization led by a group of undergraduate students. Premed Peers is not affiliated with the American Association of Medical Colleges.

WELCOME TO MCAT101!

Welcome to Premed Peers' 9-week prep course: MCAT101! We are a group of undergraduate and postgraduate student volunteer tutors who have scored above the 90th percentile in the sections we are tutoring. We offer 5-6 topic sessions a week and a brief 1-1 meeting with our tutors at the end of each month.

The duration of one topic session is approximately 1 hour. As a student in our prep course, you will be assigned certain sections to read as well as a homework passage to complete prior to the session every week. We will provide you with a Q & A book, free resources from mcats-review.org, Jack Westin, and Khan Academy to review the content prior to class. During the session, the tutor will review the homework assignments, provide warm-up questions, briefly review the concepts during the session, and answer any questions you may have.

Please keep in mind that our sessions gradually build on one another and follow a structured syllabus. If you are unable to attend the live sessions, you may access the recordings on our Google Classroom page. Please note that MCAT101 is not intended to act as your primary study resource for the MCAT, but rather is meant to serve as supplementary assistance. In order to best benefit from the course, please have your own schedule ready and attend MCAT101's sessions to strengthen topics you are weak in. Please also note that our course does not guarantee an MCAT score improvement, as we are a group of volunteers who want to help you learn certain topics.



Payment

Our course will cost 100 USD upfront to help cover our website and administrative costs. If you would like to enroll after the start of the prep course, we will adjust the price correspondingly. We accept payment to our PayPal: https://www.paypal.com/donate/?hosted_button_id=STBNZXHR5R3HC.

How to Sign Up

You may express your interest in enrolling in our prep course by making the payment to our PayPal and filling out this form: <https://airtable.com/shruxESfFhwKloQ6y>, which may be found on our website.

Once you have filled out the form and attached the receipt of payment, please add yourself to the Google Classroom as detailed in the "Google Classroom" section on page 4. Our website membership will grant you access to recordings, the syllabus, weekly homework questions, weekly assigned readings, and our forum. We will accept your membership request when we receive your payment on our PayPal.

Canceling Your Membership

If you decide that you no longer wish to attend our sessions, please contact us at info@premedpeers.org and we will remove you from our student list and a refund will be considered at that point.

Schedule Changes

If there are session cancellations, you will be notified as soon as possible. The tutor responsible for leading the session will record the session when they are available and will upload it to our Google Classroom page. If you are unable to attend the live session, you do not have to notify us and you may be able to access the recording on our website.



Google Classroom

We will be posting all of our resources on our Google Classroom. The class code will be provided to students who sign up. To add yourself to the course, log onto classroom.google.com using your gmail account. Note that you will need to make a gmail account if you do not have one. Then, click the "+" button on the top right of the screen and click "join class". A screen will show up asking for the class code. Here, enter the class code and click join on the top right of the screen. At this point, if you are not in the class, please email us at info@premedpeers.org for assistance.

Powerpoint Slides and Recordings & All Other Resources

Slides and recordings will be posted after the session. To access these, go to the "Classroom" tab of the Google Classroom Course. On the top right-hand corner, you should see a "Google Drive folder" link. Click on that and find the appropriate subject folder to find your slides and recording.

Also on Google Drive, you will find all important files such as this handbook, the schedule, and the free resources doc.

Homework

We have provided recommended readings and a set of questions (either free-standing or passage-style) to complete *prior to attending the session* from Khan Academy or Jack Westin. You can find the questions in the "classwork" tab of the Google Classroom Course. The answers will be reviewed during the session. To make the most out of the session, please have these questions answered prior to the lesson. These questions and videos are intended to guide your learning, but if you prefer to use other resources, please utilize whichever method works best for you. These resources are especially recommended because, during the sessions, we will not be teaching every subsection, but rather providing you with additional practice and answering any questions you may have. The homework assignments will be posted on Google Classroom under the "Classwork" tab.



Mentorship/Study Group

A mentor will be provided for additional support. At the beginning of the prep course, one of our mentors will reach out to you to discuss your initial concerns. You may contact your mentor regarding any MCAT or topic-specific questions. Your mentor will also add you to a study group on Slack and provide more information through a separate e-mail. You can use the study group to ask questions and form study sessions.

Personalized Schedule

If you would like a personalized MCAT schedule, please refer to this form: <https://airtable.com/shrl7c0oqtiAVi3so>. Note that this is an additional payment.

UWorld Discount: Please sign up here to receive a UWorld discount: <https://airtable.com/shrnbA5zi775SrSGQ>. We recommend doing UWorld practice along with your content.

GENERAL CHEMISTRY SYLLABUS AND HOMEWORK



Date	Topic	Subtopic	Recommended Review
Mon, 5/30	Class 1 Atomic Structure, Periodic Tables, Bonding, Intermolecular Forces, Thermodynamics	Subatomic particles, electromagnetic spectrum, excitation and relaxation, quantum models, electron rules, electron configuration, periodicity, periodic trends, formal charge, lewis dot structures, hybridization and shapes, intramolecular forces, intermolecular forces, enthalpy, entropy, Gibbs free energy	Khan Academy Unit: Chemical Processes <ul style="list-style-type: none"> • Dot Structure • Covalent Bonds • Thermochemistry MCAT-review.org: <ul style="list-style-type: none"> • Electronic Structure • Stoichiometry • Thermochemistry
Fri, 6/3	Class 2 Phases and Gases, Kinetics and Equilibrium	States of matter, phase diagrams, heating curves, IMFs, solutions, solubility, kinetic molecular theory, gas laws, Avogadro's law, ideal gas law, real world of gas, Dalton's law, Graham's law, reaction coordinates, reaction rates, reaction mechanism, equilibrium and pressure, reaction quotients, Le Chatlier's principle, changing equilibrium, multiple equilibria, solubility equilibrium, common ion effect	Khan Academy Unit: Physical Processes <ul style="list-style-type: none"> • Gas phase • Kinetic molecular theory of gases Khan Academy Unit: Chemical Processes <ul style="list-style-type: none"> • Solubility Equilibria • Equilibrium • Thermochemistry: Phase MCAT-review.org <ul style="list-style-type: none"> • Phases and Phase Equilibria • Solution chemistry: solubility • Rate Processes in Chemical Reactions
Wed, 6/8	Class 3 Acids and Bases I	Acid/base definitions, strong vs weak acid/base, qualitative acid dissociation, auto-dissociation and pH, calculating pH	Khan Academy Unit: Chemical Processes <ul style="list-style-type: none"> • Acid/base equilibria MCAT-review.org <ul style="list-style-type: none"> • Acids/Bases: acid/base equilibria
Mon, 6/13	Class 4 Acids and Bases II	Buffers, strong acid/base titrations, indicators, weak acid/base titrations, diprotic curves	Khan Academy Unit: Chemical Processes <ul style="list-style-type: none"> • Acid/base equilibria: buffer • Titrations MCAT-review.org <ul style="list-style-type: none"> • Acid/base equilibria: buffers • Titration
Mon, 6/20	Class 5 Electrochemistry	Redox, cell potential, electroplating, electrochemical cell basics, discharging/recharging batteries, electrochemical cell terms, redox titrations, nuclear decay, half-life and energy changes	Khan Academy Unit: Physical processes: <ul style="list-style-type: none"> • Electrochemistry MCAT-review.org: <ul style="list-style-type: none"> • Electrochemistry

PHYSICS SYLLABUS AND HOMEWORK



Date	Topic	Subtopic	Recommended Review
Tues, 6/7	Class 1 Kinematics and Dynamics	Trigonometry and vectors, units and dimensions, displacement and velocity, acceleration, graphs, uniformly accelerated motion, free fall, projectile motion, Newton's first, second, and third laws, gravitation, normal force, friction, inclined planes, tension and pulleys	Khan Academy: Physical processes <ul style="list-style-type: none"> From "vectors and scalars" to "forces on inclined planes" MCAT-Review.org <ul style="list-style-type: none"> Translational motion Force, motion and gravitation
Fri, 6/17	Class 2 Circular Motion, Torque, Work, and Energy	Uniform circular motion, center of mass, torque, the lever arm, equilibrium, rotational inertia, work, power, kinetic energy, work-energy theorem, potential energy, conservation of mechanical energy, mechanical advantage, efficiency, momentum and impulse, elastic and inelastic collisions	Khan Academy: Physical processes <ul style="list-style-type: none"> Work and energy MCAT-Review.org <ul style="list-style-type: none"> Force, motion and gravity: uniform circular motion Equilibrium and momentum Work and energy
Mon, 6/27	Class 3 Physical Thermodynamics and Fluids	Heat/temperature, heat transfer, first law of thermodynamics, thermodynamic processes, isobaric and isochoric processes, isothermal and adiabatic processes, P-V diagrams, density and pressure buoyant force, floating, flow rate and continuity, ideal fluid flow, Bernoulli's equation	Khan Academy: Physical processes <ul style="list-style-type: none"> Fluids at rest Fluids in motion Khan Academy: Chemical processes <ul style="list-style-type: none"> Thermodynamics MCAT-Review.org <ul style="list-style-type: none"> Fluids and solids Thermodynamics
Wed, 7/13	Class 4 Electrostatics, Capacitors, Batteries, Resistors I	Electric charge and force, superposition of forces, electric field, electric potential, electric potential energy	Khan Academy: Physical processes <ul style="list-style-type: none"> Electrostatics MCAT-Review.org <ul style="list-style-type: none"> Electrostatics and electromagnetism
Tues, 7/19	Class 5 Electrostatics, Capacitors, Batteries, Resistors II	Capacitors and batteries, electric field of a capacitor, energy stored by a capacitor, dielectrics, voltage and current, resistance, resistors in combination, Kirchhoff's Laws, measurement devices	Khan Academy: Physical processes <ul style="list-style-type: none"> Current and resistance Capacitors MCAT-Review.org <ul style="list-style-type: none"> Electronic circuit elements

PHYSICS SYLLABUS AND HOMEWORK



Date	Topic	Subtopic	Recommended Review
Thurs, 7/21	Class 6 Oscillators, Waves, and Sound	Magnetic force/fields, simple harmonic motion (dynamics and kinematics, energy, pendulums), wave properties and speed, interference and beats, standing waves, intensity, decibel level, Doppler shift	Khan Academy: Physical processes <ul style="list-style-type: none"> • Magnetism • Sound MCAT-Review.org <ul style="list-style-type: none"> • Waves and periodic motion • Sound
Thurs, 7/28	Class 7 Light, Mirrors and Lenses, Quantum Physics	Electromagnetic radiation, reflection and refraction, total internal reflection, total internal reflection, diffraction and dispersion, polarization, mirrors and lenses, types of images, vision correction	Khan Academy: Physical processes <ul style="list-style-type: none"> • From "light and electromagnetic radiation" to "reflection and refraction" MCAT-Review.org <ul style="list-style-type: none"> • Light and geometrical optics

BIOCHEMISTRY SYLLABUS AND HOMEWORK



Date	Topic	Subtopic	Recommended Review
Thurs, 6/2	Class 1: Anaerobic Respiration I	Glycolysis, fermentation, gluconeogenesis, pentose phosphate pathway, net energetic results of respiration processes, citric acid cycle, reactions in the cycle	Khan Academy: Biomolecules <ul style="list-style-type: none"> Overview of metabolism Carbohydrate metabolism Krebs cycle and oxidative phosphorylation MCAT-Review.org <ul style="list-style-type: none"> Metabolism: Basic metabolism and glycolysis, gluconeogenesis, and pentose phosphate pathway, Citric acid cycle
Thurs, 6/9	Class 2: Aerobic Respiration II & Fatty Acid Metabolism	Electron transport chain, fatty acids - digestion, mobilization, transportation, oxidation of fatty acids (saturated vs unsaturated), ketone bodies, anabolism of fats, non-template synthesis - lipids and polysaccharides	Khan Academy: Biomolecules <ul style="list-style-type: none"> Krebs cycle and oxidative phosphorylation Fat and protein metabolism MCAT-Review.org <ul style="list-style-type: none"> Metabolism: oxidative phosphorylation, metabolism of fats and protein
Thurs, 6/23	Class 3: Enzyme Structure and Function	Function of enzymes as biological catalysts, enzyme classification, activation energy, substrates and enzyme specificity, active site model, induced-fit model, mechanism of catalysis (cofactors, coenzymes, water-soluble vitamins), effects of local conditions on enzyme activity	Khan Academy: Biomolecules <ul style="list-style-type: none"> Enzyme structure and function MCAT-Review.org <ul style="list-style-type: none"> Enzymes: enzyme structure and function
Thurs, 6/30	Class 4: Control of Enzyme Activity	Kinetics (Michaelis-Menten, cooperativity), feedback regulation, inhibition types (competitive, non-competitive, mixed, uncompetitive), regulatory enzymes (allosteric, covalently-modified enzymes, zymogen)	Khan Academy: Biomolecules <ul style="list-style-type: none"> Enzyme kinetics MCAT-Review.org <ul style="list-style-type: none"> Enzymes: control of enzyme activity, regulatory enzymes
Tues, 7/12	Class 5: Biologically Important Molecules I	Structure, stereochemistry, side chains, gabriel malonic ester synthesis, strecker synthesis, amino acids: acid-base chemistry/isoelectric point, proteins: peptide bonds and protein hydrolysis/protein structure and denaturation	Khan Academy: Biomolecules <ul style="list-style-type: none"> Amino acids and protein Khan Academy: Chemical processes <ul style="list-style-type: none"> Amino acids, peptides, proteins Proteins MCAT-Review.org <ul style="list-style-type: none"> Biologically important molecules: amino acids and proteins
Mon, 7/25	Class 6: Biologically Important Molecules II	Sugars: Structure/stereochemistry/classification/mut arotation/reactivity/Benedict's test/glycosidic linkages, lipids: fatty acids and phospholipids	Khan Academy: Biomolecules <ul style="list-style-type: none"> Carbohydrates Fat and protein metabolism Khan Academy: Chemical processes <ul style="list-style-type: none"> Nucleic acids, lipids, and carbohydrates MCAT-Review.org <ul style="list-style-type: none"> Biologically important molecules: carbohydrates, lipids, phosphorous compounds

ORGANIC CHEMISTRY

SYLLABUS AND

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Date	Topic	Subtopic	Recommended Review
Fri, 6/10	Class 1: Fundamentals, Structure, and Stability	IUPIAC nomenclature, Saturation and unsaturation, ring strain, induction, resonance, acidity, nucleophiles, electrophiles and LGs, isomers, cyclohexane conformations, chirality, absolute configuration: prioritization, absolute configuration: assigning R&S configurations, stereoisomers, geometric isomers, meso compounds	Khan Academy Unit: Chemical Processes <ul style="list-style-type: none"> Stereochemistry Dot structures: resonance MCAT-review.org <ul style="list-style-type: none"> The Covalent Bond: stereochemistry
Thurs, 6/16	Class 2: Lab Techniques: Separation and Spectroscopy I	Intro to separation techniques, intro to chromatography, SEC, TLC, column chromatography, ion-exchange chromatography, affinity chromatography, gas chromatography, distillations	Khan Academy Unit: Chemical Processes <ul style="list-style-type: none"> Separations and purifications MCAT-review.org <ul style="list-style-type: none"> Separations and Purifications
Wed, 6/22	Class 3: Lab Techniques: Separation and Spectroscopy II	Solvent extraction, resolution of enantiomers, intro to spectroscopy, infrared spectroscopy, ¹ H-NMR: nonequivalent hydrogens/splitting/integration (chemical shift)	Khan Academy Unit: Physical Processes <ul style="list-style-type: none"> Infrared and UV/Visible Spectroscopy Proton nuclear magnetic resonance MCAT-review.org <ul style="list-style-type: none"> Separations and Purifications Molecular Structure and Spectra: NMR
Wed, 6/29	Class 4: Carbonyl chemistry I	Intro to substitution reactions, SN2 mechanisms, SN1 mechanism, SN2/1 comparison	Khan Academy Unit: Chemical Processes <ul style="list-style-type: none"> Alcohols and Phenols: SN1 and SN2 Carboxylic acid derivatives: nucleophilic acyl substitution Carboxylic acids: alpha-substitution of carboxylic acids
Tues, 7/5	Class 5: Carbonyl Chemistry II	Carbonyl reactivity, tautomerism, nucleophilic addition reactions, hydride reductions, Grignard reaction, intro to hemiacetals and acetals, formation mechanism, imines and enamines, aldol reaction, predicting kinetic vs thermodynamic enolates	Khan Academy Unit: Chemical Processes <ul style="list-style-type: none"> Nucleic acids, lipids, and carbohydrates: Keto-enol tautomerization Aldehydes and Ketones Kinetics: kinetic and thermodynamic enolates Alpha-carbon chemistry MCAT-review.org <ul style="list-style-type: none"> Aldehydes and Ketones Keto acids and esters
Thurs, 7/7	Class 6: Carbonyl Chemistry III	Intro to carboxylic acids: properties and reactivity, carboxylic acid derivatives: nucleophilic addition-elimination/relative reactivity of derivatives, synthesis from COOHs, carbonyl chemistry overview	Khan Academy Unit: Chemical Processes <ul style="list-style-type: none"> Carboxylic Acids Carboxylic Acid Derivatives MCAT-review.org <ul style="list-style-type: none"> Carboxylic acids

BIOLOGY SYLLABUS AND HOMEWORK



Date	Topic	Subtopic	Recommended Practice
Tues, 5/31	Class 1: Molecular Biology	Nucleic acids, prokaryotic and eukaryotic genomes, central dogma, mutations (polymerase errors, exogenous and endogenous damage, transposons), repair mechanisms (mismatch repair and nucleotide excision), DNA replication, prokaryotic replication, eukaryotic replication, DNA vs RNA transcription, translation and energy count, tRNA and ribosomes, posttranslational modifications	Khan Academy Unit: Biomolecules <ul style="list-style-type: none"> DNA Gene control Genetic mutations MCAT-Review.org <ul style="list-style-type: none"> DNA
Mon, 6/6	Class 2: Viruses, Bacteria, Prions	Viral structures, viral life cycle: lytic, lysogenic and productive cycle, +RNA, -RNA, prions and viroids, bacterial class by structure and living conditions, binary fission, conjugation	Khan Academy Unit: Cells <ul style="list-style-type: none"> Prokaryotes/bacteria Viruses MCAT-Review.org <ul style="list-style-type: none"> Microbiology
Wed, 6/15	Class 3: Cells	Protein traffic, cell membrane structure, electrolytes and van't Hoff factor, colligative properties, freezing point depression, vapor pressure, boiling point elevation, osmotic pressure, diffusion, osmosis, tonicity, passive and active transport	Khan Academy Unit: Cells <ul style="list-style-type: none"> Cell membrane overview Transport across a cell membrane MCAT-Review.org: <ul style="list-style-type: none"> Gas Phase: Colligative properties Generalized eukaryotic cell: plasma membrane
Fri, 6/24	Class 4: Cell Transport and Division	G proteins, cytoskeleton and cell junctions, cell cycle, mitosis, cancer: oncogenes, tumor suppressors, apoptosis, meiosis I and II	Khan Academy Unit: Cells <ul style="list-style-type: none"> Cell-cell interactions Cytoskeleton Cellular division Cellular development: Apoptosis Khan Academy: Biomolecules <ul style="list-style-type: none"> Chromosomal inheritance: Genetic recombination MCAT-Review.org <ul style="list-style-type: none"> Generalized eukaryotic cell: cell cycle and mitosis Genetics: Meiosis Eukaryotes: control of gene expression
Tues, 6/28	Class 5: Genetics	Classical and non-classical dominance, blood typing, testcross, Mendel's laws, 4 basic single gene crosses, rules of probability, linked genes, Hardy Weinberg, pedigree analysis	Khan Academy Unit: Biomolecules <ul style="list-style-type: none"> Mendelian genetics Chromosomal inheritance: Sex-linked traits MCAT-Review.org <ul style="list-style-type: none"> Genetics
Wed, 7/6	Class 6: Nervous System	Neuron structure, rest potential, action potential, nerve impulses, refractory periods, electrical synapses, chemical synapses, EPSPs, IPSPs, summation	Khan Academy Unit: Organ systems <ul style="list-style-type: none"> "Biological basis of behavior" to "neuronal synapses" MCAT-Review.org <ul style="list-style-type: none"> Nervous and endocrine system

BIOLOGY SYLLABUS AND HOMEWORK



Week	Topic	Subtopic	Recommended Practice
Fri, 7/8	Class 7: NS Anatomy	Nervous system function, CNS anatomy, PNS, ANS, sensory receptors, eye and vision, ear and hearing	Khan Academy Unit: Processing the environment <ul style="list-style-type: none"> "Sensory perception" to "taste and smell" MCAT-Review.org <ul style="list-style-type: none"> Nervous and endocrine system
Thurs, 7/14	Class 8: Endocrine, Cardiovascular, Lymphatic & Immune Systems	Hypothalamus/pituitary gland, cardiovascular and lymphatic system, heart anatomy and heart sounds, blood pressure, cardiac action potential, cardiac conduction system, blood composition and gas transport, non-specific defense and immunity, autoimmunity	Khan Academy Unit: Organ System <ul style="list-style-type: none"> Endocrine system Circulatory system Hematologic system Lymphatic system Immune system MCAT-Review.org <ul style="list-style-type: none"> Endocrine system Circulatory, lymphatic and immune system
Fri, 7/15	Class 9: Excretory & Digestive Systems	Kidney anatomy/function, blood pressure regulation, pH regulation, digestive accessory organs, alimentary canal	Khan Academy Unit: Organ System <ul style="list-style-type: none"> Renal system Renal regulation of blood pressure Gastrointestinal system MCAT-Review.org <ul style="list-style-type: none"> Digestive System Excretory System
Wed, 7/20	Class 10: Muscles and Bones	Skeletal muscle hierarchy, sarcomeres, sliding filament theory, motor units, muscle energy and oxygen debt, muscle fiber types, cardiac and smooth muscle, connective tissue, long bone anatomy and bone turnover	Khan Academy Unit: Organ System <ul style="list-style-type: none"> Muscular system Skeletal system MCAT-Review.org <ul style="list-style-type: none"> Muscle and skeletal system
Fri, 7/22	Class 11: Respiration & Skin	Conduction zone, respiratory zone, ventilation and pH regulation, skin	Khan Academy Unit: Organ System <ul style="list-style-type: none"> Respiratory system MCAT-Review.org <ul style="list-style-type: none"> Respiratory system
Wed, 7/27	Class 12: Reproduction & Development	Testes and spermatogenesis, sperm pathway, sexual function and gender development, external genitalia through uterus, ovary and oogenesis, menstrual cycle, fertilization and cleavage, stem cells, embryonic and fetal stages	Khan Academy Unit: Organ System <ul style="list-style-type: none"> Reproductive system Khan Academy: Cells <ul style="list-style-type: none"> Cellular development: Stem cells, Cellular specializations (differentiation) Embryology MCAT-Review.org <ul style="list-style-type: none"> Reproductive system and development

PSYCHOLOGY & SOCIOLOGY SYLLABUS AND HOMEWORK



Week	Topic	Subtopic	Recommended Practice
Wed, 6/1	Class 1: Research Methods and Sociological Theories	Major sociological theories (functionalism, conflict theory, symbolic interactionism, social constructionism), rational choice, social exchange, feminism, research methods (finding key points of the study, how it gets tested, experimental design, validity, flaws in study design, correlation)	Khan Academy Unit: Society and Culture <ul style="list-style-type: none"> Social structures MCAT-review.org <ul style="list-style-type: none"> Understanding social structure: theoretical Approaches
Tues, 6/14	Class 2: Social Institutions and Demographics	Social structures, accessibility and availability of healthcare, demography, life expectancy, poverty, socioeconomic status, social stratification and social mobility, status, roles, networks, organizations, culture	Khan Academy Unit: Social inequality Khan Academy Unit: Society and culture <ul style="list-style-type: none"> Demographics Culture MCAT-review.org <ul style="list-style-type: none"> Demographic characteristics and processes Social inequality
Tues, 6/21	Class 3: Social Interactions and Identity	Influence of others, behavior in groups, conformity and obedience, attribution theory and biases, persuasion, identity: personal and social, social interactions, aspects of self-concept, formation of identity	Khan Academy Unit: Individuals and Society <ul style="list-style-type: none"> Self-identity Social Interaction Perception, prejudice, and bias MCAT-review.org <ul style="list-style-type: none"> Self-identity Social thinking Social interactions Social processes that influence behavior
Fri, 7/1	Class 4: Personality, Motivation, Emotion, and Stress	Life course perspective, big 5 traits, Freud, Erikson, humanist and behaviorist perspectives, social cognitive perspective, behavioral genetics, therapeutic approaches, motivation and behavior, emotion, theories of emotion, stress, intro to attitude and behavior	Khan Academy Unit: Individuals and Society <ul style="list-style-type: none"> Self-identity Khan Academy Unit: Behavior <ul style="list-style-type: none"> Motivation and attitudes Theories of attitude and behavior change Khan Academy Unit: Processing the environment <ul style="list-style-type: none"> Emotion MCAT-review.org <ul style="list-style-type: none"> Individual influences on behavior: personality Responding to the world: emotion Attitudes and behavior change Motivation
Mon, 7/11	Class 5: Psychological Disorders and Consciousness	Major psychological disorders, treatment for disorders, consciousness and sleep, sleep disorders, consciousness-altering drugs, drugs and dependence	Khan Academy Unit: Behavior <ul style="list-style-type: none"> Psychological Disorder Khan Academy Unit: Processing the environment <ul style="list-style-type: none"> Sleep and consciousness Drug dependence MCAT-review.org <ul style="list-style-type: none"> Psychological disorders Making sense of the environment: consciousness

PSYCHOLOGY & SOCIOLOGY SYLLABUS AND HOMEWORK



Week	Topic	Subtopic	Recommended Practice
Mon, 7/18	Class 6: Learning and Memory	Brain lateralization, limbic system, neuroimaging, memory storage, memory encoding, forgetting, retrieval, interference, other dysfunctions, memory: brain structure, non-associative learning, classical conditioning, operant conditioning	Khan Academy Unit: <ul style="list-style-type: none"> • Behavior: learning • Processing the environment: memory MCAT-review.org <ul style="list-style-type: none"> • Attitude and behavior change: Associative learning, observational learning • Making sense of the environment: Memory
Tues, 7/26	Class 7: Sensation, Cognition, and Language	Sensory thresholds and Weber's law, signal detection theory, Gestalt psychology, Baddeley's model of working memory, Jean Piaget's stages of cognitive development, problem-solving, language development and processing	Khan Academy Unit: <ul style="list-style-type: none"> • Processing the environment: sensory perception, cognition, language MCAT-review.org <ul style="list-style-type: none"> • Sensory Processing: Sensation • Making sense of the environment: cognition, language