MCAT Standards Mapping

# Note to Instructors and Students Using This Resource

In 2015, the MCAT (Medical College Admission Test) began to include the social and behavioral sciences (Section 3 Psychological, Social, and Biological Foundations of Behavior). Sociological content constitutes thirty percent of Section 3. This material is organized under four Foundational Concepts with a range of subtopics known as “Content Categories.” The four Foundational Concepts are:

* [*Foundational Concept 7*](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-foundational-concept-7/): Biological, psychological, and sociocultural factors influence behavior and behavior change.
	+ [Read more about Foundational Concept 7](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-foundational-concept-7/)
* [*Foundational Concept 8*](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-foundational-concept-8/): Psychological, sociocultural, and biological factors influence the way we think about ourselves and others, as well as how we interact with others.
	+ [Read more about Foundational Concept 8](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-foundational-concept-8/)
* [*Foundational Concept 9*](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-foundational-concept-9/): Cultural and social differences influence well-being.
	+ [Read more about Foundational Concept 9](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-foundational-concept-9/)
* [*Foundational Concept 10*](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-foundational-concept-10/): Social stratification and access to resources influence well-being.
	+ [Read more about Foundational Concept 10](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-foundational-concept-10/)

This guide links the four MCAT Foundational Concepts and Subtopics to appropriate text chapters. It is organized in a chapter by chapter manner. It first summarizes the main topics covered in each chapter, and then shows the relevant MCAT topics below the summary. Each chapter entry also contains resources that allow students to understand and explore specific topic areas in more detail. These resources include tutorials, graphics, fact sheets, news, and journal articles. Some of these resources fill in material that a chapter covers only briefly but that the MCAT includes in the Content Category area. Many of the resources make explicit connections to health.

Because each chapter covers theoretical perspectives, they are introduced as the primary material of Chapter 1 and highlighted where they become particularly salient or detailed in the chapters that follow.

The MCAT also tests four different scientific inquiry skills. These are also detailed at the end of this document. Chapter Two is crucial for developing students proficiency’s in this skill based area.

# Chapter 1: Sociology: A Unique Way to View the World

Chapter 1 defines sociology and presents ways for beginning to think sociologically. It also briefly introduces a number of concepts which are tied to MCAT foundational Standards/Subtopics. As such it is a good primer for developing beginning knowledge of a breadth of MCAT areas that address human behavior and wellbeing. Foundational Standards and subtopics specifically addressed include a definition and description of dyads, an explanation and application of micro versus macro approaches, and an introduction to social institutions with an example of domestic violence. As such, content in Chapter 1 is directly linked to MCAT Foundational Concept 8, Content Category 8C and MCAT Foundational Concept 9, Content Category 9A.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 8C](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8c/): Social Interactions* **Elements of Social Interaction**
* **Groups**
	+ - * *Group size (dyads, triads)*

[Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding social structure* **Theoretical Approaches**
* *Micro versus macro*
* **Social Institutions**
* Family
* *Violence in the family (e.g. child abuse, elder abuse, spousal abuse)*
 |

## For Further Research and Exploration:

|  |
| --- |
| * **Ted Talk: The Wisdom of Sociology: Sam Richards at TEDxLacador**

<https://www.youtube.com/watch?v=gWD6g9CV_sc>Sociologist Sam Richards enlists sociological insights to reveal the crucial way in which society shapes individuals and their decisions, even with one as personal as suicide. * **Macrosociology Versus Microsociology**

<https://www.youtube.com/watch?v=-BVeSykcQeE>This short YouTube clip differentiates between macro and micro sociology. Produced collaboratively by the Association of American Medical Colleges and Khan University, it also touches on functionalism, conflict, and symbolic interaction theories.  |

# Chapter 2: Examining the Social World

Chapter 2 begins with a vignette of a boy named Hector who is forced to drop out of school to show how social factors influence individual behavior. This chapter then shows how Sociologists use social theories and scientific methods to examine social issues. It explores the development of sociology, providing an overview of its theories and research methods. It introduces basic theoretical perspectives in sociology of how institutions, culture, and demographic characteristic shape lives and interactions. As such, it provides a good introduction to MCAT Foundational Concept 9 Concept Category A.

Chapter 2 also explores research methods, collecting data, making sense of data and research ethics. As such it is also linked to the MCAT four scientific inquiry skills.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding Social Structure* **Theoretical Approaches**
	+ Micro versus macro
	+ Functionalism (the author’s refer to it as structural functional theory)
	+ Conflict
	+ Symbolic interactionism (the author explains that symbolic interactionism is also called social constructionism)
	+ Social constructionism (the author explains that social constructionism is also called symbolic interactionism)
	+ Exchange-rational choice
	+ Feminist theory
 |

## For Further Research and Exploration

|  |
| --- |
| * **Rational Choice Exchange Theory**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/social-structures/v/rational-choice-exchange>This eight-minute clip explains and critiques rational choice theory. Produced collaboratively by the Association of American Medical Colleges and Khan University.* **Sociological Theories**

<https://quizlet.com/9936274/sociological-theories-unit-1-flash-cards/>This series of flash cards allows students to review functionalism, conflict, symbolic interactionism, and exchange theories.* **Feminist Theory**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/social-structures/v/social-theories-overview-part-2>This video explains feminist theory, in addition to rational exchange theory, and provides examples of it in practice.* **Relating Social Theories to Medicine**

<https://www.khanacademy.org/video/relating-social-theories-to-medicine>This nine-minute clip applies the social theories of functionalism, conflict, feminist, and symbolic interactionism to medicine. Produced collaboratively by the Association of American Medical Colleges and Khan University.  |

# Chapter 3: Society and Culture

Chapter 3 begins with an example of food and dietary practices shaped by culture. It then introduces culture and its elements, examining concepts such as material and nonmaterial culture, language, and how culture links to identity. As such, it is most connected with MCAT Foundational Concept 9, [Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/). It also explores norms, folkways, mores, taboos, and types of sanctions. These link to MCAT Foundational Concept 7, Content Category 7B.

Chapter 3 further addresses cultural relativism and ethnocentrism. As such, it links to MCAT Foundational Concept 8, Content Category 8B.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 7B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-7b/): Social Processes That Influence Human Behavior* + **Normative and Non-normative Behavior**
* **Social norms**
* Sanctions
* Folkways, mores, taboos

[Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding Social Structure* **Culture**
	+ Elements of culture (beliefs, language, rituals, symbols, values)
	+ Material vs symbolic culture
	+ Subcultures and countercultures
	+ Mass media and popular culture
	+ Evolution and human culture
	+ Transmission

[Content Category 8B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8b/): Social Thinking* **Prejudice and bias**
	+ Ethnocentrism
	+ Ethnocentrism versus cultural relativism
 |

## For Further Research and Exploration

|  |
| --- |
| * **Evolution and Human Culture**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/culture/v/evolution-and-human-culture>This basic five-minute video collaboration provides a brief discussion of culture, cultural universals, human culture, and evolution. It was produced in collaboration between The Association of American Medical Colleges and Khan University.* **Social Reproduction**

<https://www.khanacademy.org/test-prep/mcat/social-inequality/social-class/v/social-reproduction>This basic five-minute video collaboration provides a brief discussion of social capital, social reproduction, and cultural capital. It was produced in collaboration between The Association of American Medical Colleges and Khan University. * **Ethnocentrism and Cultural Relativism In Group and Out Group**

<https://www.khanacademy.org/test-prep/mcat/individuals-and-society/perception-prejudice-and-bias/v/ethnocentrism-and-cultural-relativism-in-group-and-out-group>This basic eight-minute video provides a brief discussion of ethnocentrism, cultural relativism, in group, outgroups, and suggests connections with discrimination. It was produced in collaboration between The Association of American Medical Colleges and Khan University.  |

# Chapter 4: Socialization

Chapter 4 begins with a vignette of a twelve year old Canadian child’s empathy for a murdered Pakistani child that motivated him to start a nonprofit. Authors link this act to socialization, and explore the phenomenon of socialization at micro, meso, and macro levels. Also explored are agents of socialization. As such, Chapter 4 is directly connected to MCAT Foundational Topic 7, Content Category 7B. Additionally, Chapter 4 links social class to socialization and as such is tied to MCAT Foundational Topic 10, Content Category A.

Chapter 4 also addresses social interaction, providing important information in MCAT Foundational Concept 8, Content Category 8A. It further connects to Content Category 8B as it introduces the role of stereotyping in socialization. Finally, like other chapters, it provides a solid background on theoretical and micro and macro approaches to socialization and social interaction.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 7B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-7b/): Social Processes That Influence Human Behavior* + **Socialization**
	+ Agents of socialization (family, mass media, peers, workplace)

Content Category 10 A: Social Class* **Social Class**
	+ Social reproduction

[Content Category 8A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8a/): Self-Identity* + **Formation of Identity**
* Influence of social factors on identity formation
	+ Influence of individuals (imitation, looking glass self, role taking)
	+ Influence of culture and socialization on identity formation

[Content Category 8B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8b/): Social Thinking* + **Prejudice and bias**
		- Stereotypes

[Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding Social Structure* **Theoretical Approaches**
* Micro versus macro
* Functionalism
* Conflict
* Symbolic interactionism
 |

## For Further Research and Exploration

|  |
| --- |
| * **Charles Cooley Looking Glass Self**

<https://www.khanacademy.org/test-prep/mcat/individuals-and-society/self-identity/v/charles-cooley-looking-glass-self>This three-minute clip explains and applies Cooley’s Looking Glass Self. It was produced in collaboration between The Association of American Medical Colleges and Khan University. * **George Herbert Mead I and Me**

[https://www.khanacademy.org/test-prep/mcat/individuals-and-society/self-identity/v/george-herbert-mead-the-i-and-the-me](https://www.khanacademy.org/test-prep/mcat/individuals-and-society/self-identity/v/george-herbert-mead-the-i-and-the-me%20)This five-minute clip provides a brief discussion of preparatory, play, and game stages and the I and the Me. Produced in collaboration between The Association of American Medical Colleges and Khan University.* **Families’ Journeys to Accepting Transgender Children, Mothers Play Key Advocacy Role**

<http://www.asanet.org/press-center/press-releases/study-examines-families-journeys-accepting-transgender-children-mothers-play-key-advocacy-role>Families are key agents of socialization. This brief press release shows the results of a study indicating the impact of gender on family acceptance of transgender children. * **Impression Management**

<https://www.khanacademy.org/test-prep/mcat/individuals-and-society/social-interactions/v/impression-management>This four-minute clip provides a brief discussion of the dramaturgical approach, front stage, back stage, and impression management. It was produced in collaboration between The Association of American Medical Colleges and Khan University. |

# Chapter 5: Interaction, Groups, and Organizations

Chapter 5 explores interaction, groups, and organizations. It opens with a vignette about cell phone and media usage and interaction. It explores social networks, social interaction, social status, social roles, groups, group solidarity and anomie, primary and secondary groups, organizations, bureaucracies, and McDonaldization. As such, it allows the student solid preparation for MCAT Foundational Concept 8, Content Category 8C.

Also explored is the term social capital, which links to MCAT Foundational Concept 10, Content Category A.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 8C](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8c/): Social Interactions* **Elements of Social Interaction**
	+ - Status
			* Types of statuses (ascribed/achieved)
		- Role
			* Role conflict and role strain
		- **Groups**
			* Primary and secondary groups
			* In group vs out group
		- **Networks**
		- **Organizations**
			* Formal organization
			* Bureaucracy
				+ Perspectives on bureaucracy (e.g., iron law of oligarchy, McDonaldization)

[Content Category 10A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-10a/): Social Inequality* **Social Class**
	+ - Social capital
 |

## For Further Research and Exploration

|  |
| --- |
| * **Solomon Asch Conformity Studies**

<http://www.simplypsychology.org/asch-conformity.html>Detailed explanation of Asch’s social psychological experiments as well as clips from them. * **The Sociology of Max Weber**

<http://academic.udayton.edu/RichardGhere/POL%20307/weber.htm>Overview of Max Weber’s Sociology including ideal types and bureaucracy. * **What Is McDonaldization?**

[http://www.McDonaldization.com/whatisit.shtml](http://www.mcdonaldization.com/whatisit.shtml)Covers the basics of McDonaldization (calculability, predictability, efficiency, control) including separate pages for each with examples. * **Organizations and Bureaucratization**

<https://www.khanacademy.org/test-prep/mcat/individuals-and-society/social-interactions/v/organizations-and-bureaucratization>This five-minute clip provides a brief discussion of utilitarian, coercive, and normative organizations. It also addresses bureaucracy, bureaucratization, the iron rule of oligarchy, and McDonaldization. It provides a brief discussion of conflict and power. It was produced in collaboration between The Association of American Medical Colleges and Khan University.* **What Are Social Groups and Social Networks?**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/social-structures/a/what-are-social-groups-and-social-networks>This is a brief text and graphic overview of primary and secondary groups, in groups, out groups, networks, and homophily. It was produced in collaboration between The Association of American Medical Colleges and Khan University.* **Role Strain and Role Conflict**

<https://www.khanacademy.org/video/role-strain-and-role-conflict>This two-minute clip provides a brief discussion of role strain, role conflict, and primary and secondary groups. It was produced in collaboration between The Association of American Medical Colleges and Khan University. |

# Chapter 6: Deviance and Social Control

Chapter 6 opens with a vignette about a female suicide bomber and the questions that arise around defining deviance and deviants. This chapter then explores deviance and social control including the social construction of deviance, social control, anomie, and perspectives on deviance including labeling theory, differential association, and strain theory. As such, it allows the student insights into MCAT Foundational Concept 7, Content Category 7B.

Chapter 6 also discusses self-fulfilling prophecy and stigma. As such, it allows the student insights into MCAT Foundational Concept 8, Content Category B.

Chapter six addresses terrorism. As such, it allows the student insights into MCAT Foundational Concept 9, Content Category B. Like other chapters, it spends considerable time addressed Foundational Concept 9, Content Category A.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 7B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-7b/): Social Processes That Influence Human Behavior* **How the Presence of Others Affects Individual Behavior**
* Social control
* Conformity
	+ **Normative and Non-normative Behavior**
	+ Social norms
		- * Sanctions
			* Anomie
* Deviance
	+ - * Perspectives on deviance (e.g. differential association, labeling theory, strain theory)

[Content Category 8B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8b/): Social Thinking* + **Prejudice and Bias**
* Stigma
	+ **Processes Related to Stereotypes**
* Self-fulfilling prophecy

[Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding Social Structure* **Theoretical Approaches**
	+ Micro versus macro
	+ Functionalism
	+ Conflict
	+ Symbolic interactionism
	+ Exchange-rational choice
	+ Feminist theory

[Content Category 9B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9b/): Demographic Characteristics and Processes* **Demographic Shifts and Social Change**

Social changes in globalization (terrorism) |

## For Further Research and Exploration

|  |
| --- |
| * **Race and the Criminalization of Opium, Marijuana, and More**

<https://thesocietypages.org/socimages/2015/06/26/vintage-ads-for-cocaine-and-opium-as-medicines/>This *Sociological Images* piece graphically shows the social construction of deviance and criminal behavior around chemical substances such as opium, marijuana, and others that have either been banned, made illegal, or sold as cures for illness. Also featured is racialization of deviance. * **Perspectives on Deviance: Differential Association, Labeling Theory, and Strain Theory**

<https://www.khanacademy.org/test-prep/mcat/behavior/normative-and-non-normative-behavior/v/perspectives-on-deviance>This basic six-minute video collaboration between The Association of American Medical Colleges and Khan University provides a refresher on deviance, symbolic interaction, differential association, labeling theory, and strain theory. * **The Public Stigma of Mental Illness**

Pescosolido, B. (2013). The public stigma of mental illness: What do we think; what do we know; what can we prove? *Journal of Health and Social Behavior*, *54*(1), 1–21. <http://doi.org/10.1177/0022146512471197>This article explores the general population’s attitudes and beliefs around the stigma of mental health and implications for research. Using data from the General Social Survey it addresses attitudes, discrimination, stigma, and the sociology of mental health, all useful areas for students studying for the MCAT. * **Illness of Deviance? Drug Courts, Drug Treatment, and the Ambiguity of Addiction**

[Murphy, J. 2015. *Illness or deviance? Drug courts, drug treatment, and the ambiguity of addiction*. Philadelphia PA: Temple University Press.](Murphy%2C%20J.%202015.%20Illness%20or%20deviance?%20Drug%20courts,%20drug%20treatment,%20and%20the%20ambiguity%20of%20addiction.%20Philadelphia%20PA:%20Temple%20University%20Press.)This book examines the social construction of illness and deviance around drug treatment and drug addiction and its consequences. * **Stereotypes, Stereotype Threat, and Self-Fulfilling Prophecy**

<https://www.khanacademy.org/test-prep/mcat/individuals-and-society/discrimination/v/stereotypes-stereotype-threat-and-self-fulfilling-prophecy>This six-minute video introduces stereotype, stereotype threat and self-fulfilling prophecy. It is collaboration between The Association of American Medical Colleges and Khan University.  |

# Chapter 7: Stratification

Chapter 7 begins with a vignette about the royal wedding of Prince Harry, Duke of Sussex and Meghan Markle as an example of stratification, power and wealth. In contrast, while the U.S. doesn’t have royal families, it is very stratified by wealth gaps which help to determine life chances. From there, the chapter explores the impact of social stratification on micro, macro, and meso levels. Chapter 7 is most closely linked to MCAT Foundational Concept 10, Content Category 10 A. It addresses social class and aspects of social stratification. It also addresses family child rearing patterns and socialization, and cultural capital. It also addresses religious affiliation, and political involvement. It ties these aspects of social stratification together with power, privilege, and prestige. It also addresses these within a global context. It covers social class and poverty and social policy.

Chapter 7 also explores a number of theories of stratification in a detailed manner including the structural-functional theory of stratification (Davis and Moore), rational choice theories, evolutionary theories (Lenski). Chapter 7 also addresses infant mortality cross culturally. For these reasons, it also provides a strong connection to MCAT Foundational Concept 9, Content Categories A and B.

Finally, Chapter 7 also covers macro level examples of ascribed and achieved stratification systems. This is a slightly different usage than the person-oriented terms but is basically a similar concept. As such it is linked to MCAT Foundational Concept 8, Content Category 8C.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 10A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-10a/): Social Inequality* **Social Class**
	+ Aspects of social stratification
		- Social class and socioeconomic status
		- Class consciousness and false consciousness (these are not specifically mentioned in Ballantine but see discussion of the haves and haves not)
		- Cultural capital and social capital
		- Social reproduction
		- Power, privilege, and prestige
		- Intersectionality (race, gender, age)
		- Socioeconomic gradient of health
		- Global inequalities
	+ Patterns of social mobility
		- Inter and intragenerational mobility
		- Vertical and horizontal mobility
		- Meritocracy
	+ Poverty
		- Relative and absolute poverty
* **Health Disparities (**e.g. class, gender, and race inequalities in health)

[Content Category 8C](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8c/): Social Interactions* + **Elements of Social Interaction**
		- * Types of statuses (ascribed/achieved)

[Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding Social Structure* **Theoretical Approaches**
	+ Micro versus macro
	+ Functionalism
	+ Conflict
	+ Symbolic interactionism
	+ Exchange-rational choice
	+ Feminist theory

[Content Category 9B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9b/): Demographic Characteristics and Processes* + **Demographic Structure of Society**
	+ **Demographic Shifts and Social Change**
	+ Fertility, migration, mortality
	+ Globalization
		- Factors contributing to globalization (communication technology, economic interdependence)
		- Perspectives on globalization
 |

##  For Further Research and Exploration

|  |
| --- |
| * **Income and Poverty in the United States: 2014**

<https://www.census.gov/library/publications/2018/demo/p60-263.html>This report by the U.S. Census Bureau presents data on income, earnings, income inequality, and poverty in the United States. Students can explore graphs on median household income by race and ethnicity, female to male earnings ratios, families in poverty by type of family and much more.* **Social Stratification Flash Cards**

<https://quizlet.com/83214052/mcat-sociology-12-social-stratification-flash-cards/>This series of flash cards allows students to review MCAT concepts associated with social stratification. * **Relative and Absolute Poverty**

<https://www.khanacademy.org/test-prep/mcat/social-inequality/social-class/v/absolute-and-relative-poverty>This basic seven-minute video compares and contrasts relative and absolute poverty. It was produced in collaboration between The Association of American Medical Colleges and Khan University.* **Social Reproduction**

<https://www.khanacademy.org/test-prep/mcat/social-inequality/social-class/v/social-reproduction>This basic five-minute video collaboration provides a brief discussion of social capital, social reproduction, and cultural capital. It was produced in collaboration between The Association of American Medical Colleges and Khan University. * **Upward and Downward Mobility, Meritocracy**

<https://www.khanacademy.org/test-prep/mcat/social-inequality/social-class/v/upward-and-downward-mobility-meritocracy>This basic six-minute video collaboration provides a brief discussion of types of social mobility, caste systems, and meritocracy. It was produced in collaboration between The Association of American Medical Colleges and Khan University.  |

# Chapter 8: Race and Ethnic Group Stratification

Chapter 8 begins with a vignette of an African American college student whose life circumstances, following an experience with racial slurs at a party, illustrate the intersection of race, differential treatment, and racialized life chances. This chapter covers sociological definitions of minority groups, race and ethnicity, the social construction of race, and forms that minority-majority group relations have taken. It also explores theoretical perspectives on ethnicity, racism, and minority group status, prejudice, discrimination, and stereotypes and various manifestations and consequences of these social phenomena. Also addressed is assimilation. As such it is most connected to MCAT [Foundational Concept 8](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-foundational-concept-8/), [Content Categories 8B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8b/) and 8C and Foundational Concept 9, Content Category A and B.

Chapter 8 also addresses the unequal experiences of different racial and ethnic groups in the United States and how group membership may shape people’s political, economic, housing, social status, and wellbeing. As such it is linked to MCAT Foundational Concept 10, Content Category A.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 8B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8b/): Social Thinking* + **Prejudice and Bias**
		- Processes that contribute to prejudice
			* Power, prestige, class
		- Stereotypes

[Content Category 8C](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8c/): Social Interactions* + - **Discrimination**
			* Individual vs. institutional discrimination
			* The relationship between prejudice and discrimination
	+ How power, prestige, and class facilitate discrimination

[Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding Social Structure* + **Culture**
		- Assimilation

[Content Category 9B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9b/): Demographic Characteristics and Processes* + **Demographic Structure of Society**
		- Race and ethnicity
* The social construction of race
	+ Racial formation

[Content Category 10A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-10a/): Social Inequality* **Spatial Inequality**
	+ Residential segregation
	+ Neighborhood safety and violence
	+ Environmental justice (location and exposure to health risks)
* **Social Class**
	+ Aspects of social stratification
		- Social class and socioeconomic status
		- Power, privilege, and prestige
		- Intersectionality (race, gender, age)
		- Socioeconomic gradient of health
		- Global inequalities
	+ Poverty
		- Social exclusion (segregation and isolation)
* **Health Disparities (**e.g. class, gender, and race inequalities in health)
* **Healthcare Disparities** (e.g. class, gender, and race inequalities in health care)
 |

## For Further Research and Exploration

|  |
| --- |
| * **Prejudice and Discrimination Based on Race, Ethnicity, Power, Social Class, and Prestige**

<https://www.khanacademy.org/test-prep/mcat/individuals-and-society/discrimination/v/prejudice-and-discrimination-based-on-race-ethnicity-power-social-class-and-prestige>This three-minute video collaboration between The Association of American Medical Colleges and Khan University provides a refresher on prejudice and discrimination. * **How We Are Priming Some Kids for College and Others for Prison**

<https://www.ted.com/talks/alice_goffman_college_or_prison_two_destinies_one_blatant_injustice?language=en>Urban Sociologist Alice Goffman discusses her research racial inequality and youth in Philadelphia. This Ted Talk illustrates how racial social stratification influences access to resources, justice, and well-being.* **Stereotypes, Stereotype Threat, and Self-Fulfilling Prophecy**

<https://www.khanacademy.org/test-prep/mcat/individuals-and-society/discrimination/v/stereotypes-stereotype-threat-and-self-fulfilling-prophecy>This six-minute video introduces stereotype, stereotype threat and self-fulfilling prophecy. It is collaboration between The Association of American Medical Colleges and Khan University.* **Racial Residential Segregation and Disparities in Obesity Among Women**

Bower, K.M., Thorpe, R.J., Yenokyan, G. et al. 2015. *Racial Residential Segregation and Disparities in Obesity among Women* J Urban Health (2015) 92: 843. doi:10.1007/s11524-015-9974-zThis 2015 article in the journal of *Urban Health* examines the relationship between racial residential segregation and obesity among black and white women.* **The Intersectionality of Hate: Violence Against LGBTQ People of Color - Sociological Images**

<https://thesocietypages.org/socimages/2016/06/22/the-intersectionality-of-hate-violence-against-lgbtq-people-of-color/>This *Sociological Images* piece underscores the importance of understanding intersectionality in the Summer 2016 Orlando Nightclub massacre.  |

# Chapter 9: Gender Stratification

Chapter 9 begins by discussing the elimination of male and female categories in the MTV movie awards due to growing acknowledgment that socially constructed gender identities can promote inequality. This chapter links with many aspects of the MCAT foundational standards as it shows how gender is related to identity, behavior, culture and interaction, and wellbeing. It explores key concepts of sex and gender and how those are used in sociological study. It examines the social construction of gender and discusses sexuality. As such it adds some new information for students to consider around Foundational Concept 9, Content Category A and Content Category B.

Chapter 9 also addresses the social category of gender and its continuing significance in modern society, examining its effects on individuals, groups, and societies. As such it is linked to Foundational Concept 8, Content Category A. It also considers the interaction between gender and discrimination. As such it is linked to MCAT Foundational Concept 8, Category 8C.

It also addresses agents of socialization and their contribution to the construction of gendered selves. It looks at how gendered norms shape men and women’s experiences in key social institutions including mass media, education, and work, and religion. As such, it adds some new information for students to consider around Foundational Concept 7, Content Category 7B.

This chapter also addresses national and global social inequality and intersectionality. As such it is tied to MCAT Foundational Concept 10, Content Category A.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 7B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-7b/): Social Processes That Influence Human Behavior* **Normative and Non-normative Behavior**
	+ - Social norms
	+ **Socialization**
		- Agents of socialization (family, mass media, peers, workplace)

[Content Category 8A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8a/): Self-identity* **Self-concept, Self-identity, and Social Identity**
	+ Different types of identities (race/ethnicity; gender, age, sexual orientation, class)

[Content Category 8C](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8c/): Social Interactions* **Discrimination**
* Individual vs. institutional discrimination
* The relationship between prejudice and discrimination
	+ - * How power, prestige, and class facilitate discrimination

[Content Category 9B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9b/): Demographic Characteristics and Processes* + **Demographic Structure of Society**
	+ Gender
		- Sex versus gender
		- The social construction of gender
		- Gender segregation
	+ Sexual orientation

[Content Category 10A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-10a/): Social Inequality* **Social Class**
	+ Aspects of social stratification
		- Intersectionality (race, gender, age)
		- Global inequalities
 |

## For Further Research and Exploration

|  |
| --- |
| * **GLAAD Transgender FAQ**

<https://www.glaad.org/transgender/transfaq>Definitions and resources around transgender, gender identity, and sexual orientation.* **Institute for Women’s Policy Research**

<http://www.iwpr.org>/How do women’s wages compare to men’s? Has welfare reform been successful? What governmental policy is necessary to create positive social change for women and children? This website answers these and other questions related to wages, welfare, social security, and other policy-related issues. * **Demographic Structure of Society—Sex, Gender, and Sexual Orientation**

<https://www.khanacademy.org/video/demographic-structure-of-society-sex-gender-and-sexual-orientation>This seven-minute video collaboration between The Association of American Medical Colleges and Khan University provides a refresher on sex, gender, sexual orientation, gender roles, discrimination. * **Regulating Latina Youth Sexualities through Community Health Centers: Discourses and Practices of Sexual Citizenship.**

Mann, E. S. (2013). Regulating Latina Youth Sexualities through Community Health Centers: Discourses and Practices of Sexual Citizenship. *Gender & Society,* *27*(5), 681-703. doi:10.1177/0891243213493961Thisqualitative research explores the regulation of Latina youth sexualities in the context of sexual and reproductive health care provision. It enlists in-depth interviews with health care providers in two Latino-serving community health centers. Students might use this article to understand more about social control, sexuality, racial and ethnic inequality, discrimination.* **The Social Construction of Sperm**

<https://thesocietypages.org/socimages/2008/08/26/the-frightened-sperm/>This *Sociological Images* piece graphically shows how a biological substance (sperm) is gendered and socially constructed in texts.* **Feminizing the Masculine**

<https://www.pinterest.com/socimages/feminizing-the-masculine/>This collection of images is a great visual of the social construction of gender. * **Stereotypes, Stereotype Threat, and Self-Fulfilling Prophecy**

<https://www.khanacademy.org/test-prep/mcat/individuals-and-society/discrimination/v/stereotypes-stereotype-threat-and-self-fulfilling-prophecy>This six-minute video introduces stereotype, stereotype threat and self-fulfilling prophecy. It is collaboration between The Association of American Medical Colleges and Khan University.  |

# Chapter 10: Family and Education

Chapter 10 begins with a vignette discussing the different possibilities of how a new baby’s life will unfold depending upon many intersecting factors: where she is born, what family she is born into, how she is socialized, what opportunities are available to her, her education. The chapter first introduces key terms and concepts used in the sociological study of families including the definition of family and composition of family, family as an institution, and kinship. It also spends some time on functionalist, conflict, rational choice, and feminist perspectives on family. It explores diversity in family forms, and trends in marriage and divorce. To those ends, it is linked to MCAT Foundational Concept 9, Content Category 9A.

This chapter also introduces education, including an examination of hidden curriculum, and meso and micro perspectives of education, and sociological theories of education. As such it is a good refresher for MCAT Foundational Concept 9, Category 9A theories and the social institution of education.

Chapter 10 also explores social interaction in schools, and statuses and roles in the educational system, and educational bureaucracy. As such, it references students back to MCAT Foundational Concept 8, Content Category 8C.

Chapter 10 also examines intersectionality of race, gender and class in education. It also briefly explores education and global concerns. As such it is connected to MCAT Foundational Concept 10, Content Category 10 A.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding Social Structure* **Theoretical Approaches**
	+ Functionalism
	+ Symbolic Interactionist
	+ Conflict
	+ Rational Choice Theory
	+ Feminist theory
* **Social Institutions**
	+ Family
		- Forms of kinship
		- Diversity in family forms
		- Marriage and divorce
	+ Education
		- Hidden curriculum
		- Educational segregation and stratification

[Content Category 8C](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-8c/): Social Interactions* + **Elements of Social Interaction**
		- Status
		- Types of statuses (ascribed/achieved)
		- Role
		- Role conflict and role strain
		- **Organizations**
		- Bureaucracy
			* Characteristics of an ideal bureaucracy

[Content Category 10A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-10a/): Social Inequality* **Social Class**
	+ Aspects of social stratification
		- Intersectionality (race, gender, age)
		- Global inequalities
 |

## For Further Research and Exploration

|  |
| --- |
| * **MCAT Social Institutions**

<https://quizlet.com/139758352/mcat-sociology-social-institutions-flash-cards/>This series of flash cards allows students to review MCAT information around social institutions such as education, family, and religion.* **Regulating Latina Youth Sexualities through Community Health Centers: Discourses and Practices of Sexual Citizenship.**

Mann, E. S. (2013). Regulating Latina Youth Sexualities through Community Health Centers: Discourses and Practices of Sexual Citizenship. *Gender & Society,* *27*(5), 681-703. doi:10.1177/0891243213493961Thisqualitative research explores the regulation of Latina youth sexualities in the context of sexual and reproductive health care provision. It enlists in-depth interviews with health care providers in two Latino-serving community health centers. Students might use this article to understand more about social control, sexuality, racial and ethnic inequality, discrimination.* **The Most Detailed Map of Gay Marriage in America**

<http://www.nytimes.com/2016/09/13/upshot/the-most-detailed-map-of-gay-marriage-in-america.html?hp>=*New York Times* September 2016 map helps student visualize gay marriage in the U.S. by revealing state by state patterns.* **Multiple Chronic Conditions and Spouses Depressive Symptoms, and Gender Within Marriage**

[http://www.asanet.org/research-publications/journals/content/multiple-chronic-conditions-spouses-depressive-symptoms-and](http://www.asanet.org/research-publications/journals/content/multiple-chronic-conditions-spouses-depressive-symptoms-and%20)The ASA features this *Journal of Health and Social Behavior* article linking marriage, gender, depressive symptoms, and multiple chronic conditions.* **Social Institutions: Education, Family, and Religion**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/social-structures/v/institutions-education-family-religion>This six-minute video provides a brief overview of education as a social institution, briefly addressing hidden curriculum, teacher expectancy, and educational segregation. It is collaboration between The Association of American Medical Colleges and Khan University.* **Pushed Out: The Injustice Black Girls Face in School**

<http://neatoday.org/2016/09/09/criminalization-of-black-girls/>“Black girls make up 16 percent of girls in U.S. public schools, but 42 percent of girls’ expulsions and more than a third of girls’ school-based arrests” (NEA Today, 2016). This National Education Association article explores educational stratification around race, gender, and social class for young black women in the educational system.* **Sociological Theories**

<https://quizlet.com/9936274/sociological-theories-unit-1-flash-cards/>This series of flash cards allows students to review functionalism, conflict, symbolic interactionism, and exchange theories.  |

# Chapter 11: Health Care

Chapter 11 begins with a vignette about end-of-life patients and the right to decide medical care. It then explores health as a social issue and social institution. It introduces key concepts and terms associated with the study of health and health care including mortality. It distinguishes health from medicine, looks at social construction of health and illness introducing the concept of the sick role. As such, it is connected to foundational MCAT Concept 9 Content Categories 9 A.

Chapter 11 also highlights social factors and attitudes towards health, illness, and death. It compares national health care systems and addresses problems in the U.S. Healthcare system. It also addresses the global mobility of disease. As such, it connected to MCAT Foundational Concept 10 Category 10A.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding Social Structure* **Social Institutions**
	+ Health and medicine
		- Medicalization
		- The sick role
		- Delivery of health care
		- Illness experience

[Content Category 10A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-10a/): Social Inequality* **Social Class**
	+ Aspects of social stratification
		- Intersectionality (race, gender, age)
		- Socioeconomic gradient of health
		- Global inequalities
* **Health Disparities (**e.g. class, gender, and race inequalities in health)
* **Healthcare Disparities** (e.g. class, gender, and race inequalities in health care)
 |

## For Further Research and Exploration

|  |
| --- |
| * **Relating Social Theories to Medicine**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/social-structures/v/relating-social-theories-to-medicine>This nine-minute clip applies the social theories of functionalism, conflict, feminist, and symbolic interactionism to medicine. Produced collaboratively by the Association of American Medical Colleges and Khan University.* **Social Institutions: Government, Economy, and Health and Medicine**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/social-structures/v/institutions-government-economy-and-health-and-medicine>This five-minute video provides a brief overview of health as a social institution. It also briefly addresses the Affordable Care Act. It is collaboration between The Association of American Medical Colleges and Khan University.* **Health Disparities Fact Sheet: The National Institutes of Health**

<https://report.nih.gov/nihfactsheets/viewfactsheet.aspx?csid=124>The *National Institutes of Health* provides a number of resources on the social aspects of health. This fact sheet provides a very brief overview of U.S. health disparities.* **Cut It Out: The C-Section Epidemic in America**

<https://youtu.be/iKKVRaPAFrc?list=PLFAxd35lefBRTWFjxmlB6LHON7DioZKoe>Sociologist Theresa Morris discusses themes from her book, *Cut It Out: The C-Section Epidemic in America* (NYU Press, October 2013) including why the C Section rate is so high in the U.S.* **Centers for Disease Control and Prevention Obesity Prevalence Map**

<http://www.cdc.gov/obesity/data/prevalence-maps.html>This 2017 set of graphics shows state by state obesity prevalence in the U.S. by race and ethnicity. Source: *Centers for Disease Control and Prevention*, the primary public health care agency in the U.S. |

# Chapter 12: Politics and Economics

Chapter 12 begins by asking students to imagine a nuclear disaster that necessitates the need for recreating society. It addresses power at micro, macro, and meso levels. It also explores theoretical perspectives on power and authority. It addresses Weber’s typologies of authority, and pluralist and elite models of power. It examines economic institutions and their functions as well as types of economic systems. It also explores types of governments. It examines revolutions and rebellions and addresses violence at the global level. It explores the causes of war and terrorism. As such, it is primarily linked to [Foundational Concept 9](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-foundational-concept-9/), [Content Categories 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/) and B.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding Social Structure* **Social Institutions**
* Government and economy
	+ Power and authority
	+ Comparative economic and political systems

[Content Category 9B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9b/): Demographic Characteristics and Processes* + **Demographic Shifts and Social Change**
	+ Globalization
		- Factors contributing to globalization (communication technology, economic interdependence)
		- Social changes in globalization (civil unrest, terrorism)
 |

## For Further Research and Exploration

|  |
| --- |
| * **Social Institutions: Government, Economy, and Health and Medicine**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/social-structures/v/institutions-government-economy-and-health-and-medicine>This five-minute video provides a brief overview of government and economy as a social institution. It also briefly addresses term division of labor. It is collaboration between The Association of American Medical Colleges and Khan University. |

# Chapter 13: Environmental Sociology: Population, Urbanization, and Climate Change

Chapter 13 opens with the example of Sally Ride’s changed view of life on earth after her macro view from space. Saying that this chapter is also perspective changing, Chapter 13 addresses issues of population and the environment. It examines concepts and perspectives of demographic shifts and social change including Malthusian and demographic transition perspectives. It also looks at population pyramids, population growth and decline, migration, and the debate on rising population. It explores industrialization, and urbanization. As such, it is most clearly linked to MCAT Foundational Concept 9, [Content Category 9B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9b/).

## MCAT Foundational Standards/Subtopics:

|  |
| --- |
| [Content Category 9B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9b/): Demographic Characteristics and Processes* + - **Demographic Shifts and Social Change**
			* Theories of demographic change (Malthusian and demographic transition)
		- Population growth and decline (population projections, population pyramids)
		- **Fertility, Migration, Mortality**
			* Fertility and mortality rates
			* Patterns in fertility and mortality
			* Push and pull factors in migration
		- **Urbanization**
			* Industrialization and urban growth
 |

## For Further Research and Exploration

|  |
| --- |
| * **Smoking Drives Mortality Inequalities**

<https://contexts.org/articles/smoking-and-mortality/>This brief *Contexts* article summarizes a 2016 research article in the *Journal of Health and Social Behavior* examining the role that smoking plays in educational disparities in mortality. It also provides a link to the research article. * **Fact: Urban Settings as a Social Determinant of Health: World Health Organization**

<http://www.who.int/social_determinants/publications/urbanization/factfile/en>/This WHO site provides a good global overview of the intersection between urban settings and global health. Offers ten important facts on urban settings and health as well as links to learn more. * **Population Dynamics**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/demographics/v/population-dynamics>This nine-minute clip explores fertility, mortality, migration, and population pyramids. Produced collaboratively by the Association of American Medical Colleges and Khan University.* **Urbanization**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/demographics/v/urbanization>This eight-minute clip explores urbanization. Produced collaboratively by the Association of American Medical Colleges and Khan University.  |

# **Chapter 14: Process of Change**

Chapter 14 addresses social change. Beginning with a vignette about high school students in the Bronx learning how they can make a difference in their community, it goes on to define social change and explores examples of change at individual and institutional and global levels. It explores processes including the impact of population change, leadership, and technology. It addresses theories of social change including evolutionary, functional, conflict, and world systems theories. As such it is linked to MCAT Foundational Concept 9, Content Category A.

Chapter 14 also explores collective behavior including the types of behavior and social movements and their stages and types. Finally, Chapter 14 also explores technology, environment, and change. As such it is linked to MCAT Foundational Concept 9, Content Category B.

## MCAT Foundational Standards/Subtopics

|  |
| --- |
| [Content Category 9A](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9a/): Understanding Social Structure* **Social Institutions**
* Government and economy
	+ Power and authority
	+ Comparative economic and political systems
	+ Division of labor

[Content Category 9B](https://students-residents.aamc.org/applying-medical-school/article/mcat-2015-content-category-9b/): Demographic Characteristics and Processes* **Demographic Shifts and Social Change**
	+ Globalization
		- Factors contributing to globalization (communication technology, economic interdependence)
		- Perspectives on globalization
		- Social changes in globalization (civil unrest, terrorism)
* **Social Movements**
	+ - Organization of social movements
		- Movement strategies and tactics
 |

## For Further Research and Exploration

|  |
| --- |
| * **Social Institutions: Government, Economy, and Health and Medicine**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/social-structures/v/institutions-government-economy-and-health-and-medicine>This five-minute video provides a brief overview of government and economy as a social institution. It also briefly addresses term division of labor. It is collaboration between The Association of American Medical Colleges and Khan University.* **Demographic Transition**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/demographics/v/demographic-transition>This seven-minute clip explores the concept of demographic transition. Produced collaboratively by the Association of American Medical Colleges and Khan University. * **Population Dynamics**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/demographics/v/population-dynamics>This nine-minute clip explores fertility, mortality, migration, and population pyramids. Produced collaboratively by the Association of American Medical Colleges and Khan University. * **Social Movements**

<https://www.khanacademy.org/test-prep/mcat/society-and-culture/demographics/v/social-movements>This seven-minute clip explores relative deprivation, resource mobilization, and rational choice theories of social movements. Produced collaboratively by the Association of American Medical Colleges and Khan University.* **Protesting Racism**

<http://videoarchive.asanet.org/presentation/?fw__param=protesting_police_brutality_and_racism>This hour-long panel at the 2016 American Sociological Association discusses the black lives matter social movement which explores social movements, organization and tactics. Also provided is access to a transcript of the discussion for an at-a-glance overview. |

# Appendix A: MCAT Scientific Inquiry and Reasoning Skills[[1]](#footnote-1)

### Skill One: Knowledge of Scientific Concepts and Principles

* Demonstrating understanding of scientific concepts and principles
* Identifying the relationships between closely-related concepts

|  |
| --- |
| Questions that test this skill will ask you to show that you understand scientific concepts and principles by, for example: * Recognizing correct scientific principles
* Identifying the relationships among closely-related concepts
* Identifying the relationships between different representations of concepts (e.g., verbal, symbolic, graphic)
* Identifying examples of observations that illustrate scientific principles
* Using mathematical equations to solve problems
 |

### Skill Two: Scientific Reasoning and Problem Solving

* Reasoning about scientific principles, theories, and models
* Analyzing and evaluating scientific explanations and predictions

|  |
| --- |
| You will be asked to show that you can use scientific principles to solve problems by, for example:* Reasoning about scientific principles, theories, and models
* Analyzing and evaluating scientific explanations and predictions
* Evaluating arguments about causes and consequences
* Bringing together theory, observations, and evidence to draw conclusions
* Recognizing scientific findings that challenge or invalidate a scientific theory or model
* Determining and using scientific formulas to solve problems
 |

### Skill Three: Reasoning About the Design and Execution of Research

* Demonstrating understanding of important components of scientific research
* Reasoning about ethical issues in research

|  |
| --- |
| Questions that test this skill will ask you to use your knowledge of important components of scientific methodology by, for example:* Identifying the role of theory, past findings, and observations in scientific questioning
* Identifying testable research questions and hypotheses
* Distinguishing between samples and populations and between results that do and do not support generalizations about populations
* Identifying the relationships among the variables in a study (e.g., independent versus dependent variables; control and confounding variables)
* Reasoning about the appropriateness, precision, and accuracy of tools used to conduct research in the natural sciences
* Reasoning about the appropriateness, reliability, and validity of tools used to conduct research in the behavioral and social sciences
* Reasoning about the features of research studies that suggest associations between variables or causal relationships between them (e.g., temporality, random assignment)
* Reasoning about ethical issues in scientific research
 |

### Skill Four: Data-Based and Statistical Reasoning

* Interpreting patterns in data presented in tables, figures, and graphs
* Reasoning about data and drawing conclusions from them

|  |
| --- |
| Questions that test this skill will ask you to use your knowledge of data-based and statistical reasoning by, for example:* Using, analyzing, and interpreting data in figures, graphs, and tables
* Evaluating whether representations make sense for particular scientific observations and data
* Using measures of central tendency (mean, median, and mode) and measures of dispersion (range, inter-quartile range, and standard deviation) to describe data
* Reasoning about random and systematic error
* Reasoning about statistical significance and uncertainty (e.g., interpreting statistical significance levels, interpreting a confidence interval)
* Using data to explain relationships between variables or make predictions
* Using data to answer research questions and draw conclusions
* Identifying conclusions that are supported by research results
* Determining the implications of results for real-world situations
 |

1. More details on these skills and their linkages to sociology can be found on pages 101-113 of the booklet *What’s on the MCAT Exam?* Accessed 9/17/2106 (https://students-residents.aamc.org/applying-medical-school/article/whats-mcat-exam). [↑](#footnote-ref-1)