

UCSF Graduate Division



DEI Primer

Collaborative Living Document by:

D'Anne Duncan, PhD	Assistant Dean for Diversity and Learner Success
Isaac JT Strong, PhD	Director, Graduate Faculty Development
Aimee Medeiros, PhD	Associate Professor and Director of Graduate Studies, History of Health Sciences

Special Thanks

The Graduate Division DEI Primer was adapted from [Antiracism and Race Literacy: A Primer and Toolkit for Medical Educators](#), created by **Meghan O'Brien, MD, MBE**, **Rachel Fields, MS**, and **Andrea Jackson, MD, MAS**, with support from the UCSF Differences Matter Working Group 3. We want to express our gratitude for their efforts, and for openly sharing their resources and expertise to the broader UCSF community.

Introduction

What do we mean when we talk about diversity? How do the concepts of equity and inclusion factor into diversity? You may be passionate about being an active change-maker to address issues of Anti-Blackness and other forms of oppression at UCSF, but you might not know where to start and how to proceed. Made specifically by and for the Graduate Division, this primer is meant to set some groundwork that will help you reframe your understanding of the diversity work that is needed locally and nationally. Our goal in creating this living document is to provide a shared language, allowing us to engage in dialogue and more effectively work together to address the unique needs of the Graduate Division community. This primer was adapted from the [Differences Matter Initiative's Antiracism and Race Literacy: A Primer and Toolkit for Medical Educators](#).

Everyone has an active role to play in the diversity work that is needed. This diversity work starts with each of us making changes in the spaces where we hold power. Together, our work in our smaller circles will contribute to the larger movement.

Objectives

The Graduate Division DEI Primer is meant to:

- establish groundwork that is essential to empower research faculty to be active, committed participants in diversity work within the Graduate Division,
- accompany and support the [Faculty Guide: Talking about Race and Inequity in Science](#) and support research faculty engaging in important conversations,
- provide clarity on how equity and inclusion are integral components to diversity, and
- serve as a living glossary of important terms and key frameworks, which faculty can refer back to as needed.

What is Diversity?

In the most basic sense, diversity refers to the representation of difference. Diversity in people can refer to different ways of seeing or thinking about the world, different life experiences, different working styles, different communication styles, different cultural practices, different personal and professional identities, different abilities, and many other aspects of how we live and exist. Understanding differences is an important first step, but there is more to it. Diversity is defined in UCSF's PRIDE values as a call to appreciate and celebrate differences in others, creating an environment of equity and inclusion with opportunities for everyone to reach their potential. Diversity is more than just the representation of difference in our community. We tend to think of diversity as a noun when we should really be thinking about it as a verb.

Diversity as a Noun - A Desired Outcome

Calls to increase diversity in academia, especially within the fields of science, technology, engineering, mathematics, and medicine (STEMM), are not new¹. Many of these national conversations on increasing diversity focus on the desired outcome: increasing the number of students, postdocs, and faculty from backgrounds that have been and continue to be underrepresented in the field/institution compared to the larger population². Focusing on just the numbers does not capture the full scope of the problem - the focus is on the 'what' while neglecting the 'who,' 'where,' 'when,' and 'why'. In this way, diversity is discussed as a noun – something that is present, or not present. With this approach, institutions make public commitments to numeric measures of diversity, going so far as citing the presence of diversity as necessary for their own brand of excellence. Such commitments tend to be non-performative, failing to bring about the change for which they strive^{3,4}.

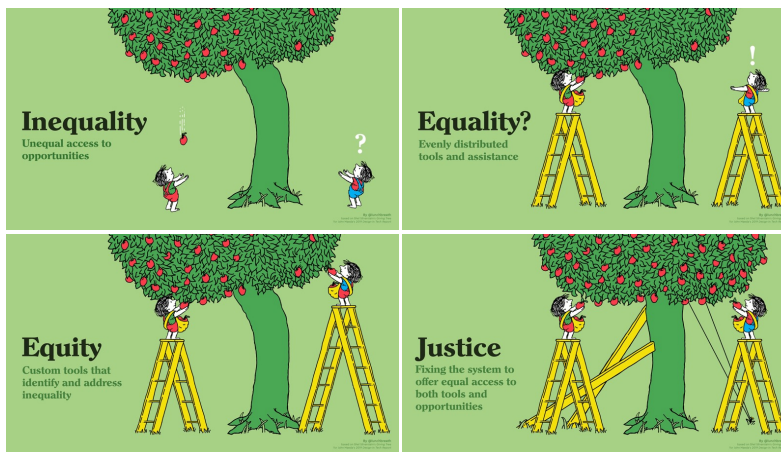
Diversity as a Verb - Creating Equitable and Inclusive Environments

Diversity is not just about numbers and words we weave. Diversity involves understanding people, their experiences, and how we empower them to be authentic members of our community. But diversity is challenged by the systems of oppression that uphold the dominant culture, a culture which continuously tells people that their differences do not fit and therefore must either be changed or suppressed. Diversity is also challenged by inequities which create more opportunities for some and fewer opportunities for others. These inequities tend to be less visible to those with more power, but are nonetheless there⁵. With these challenges in mind, diversity practitioners understand that meaningful change in representation within an organization requires an approach that focuses on transforming organizational culture. It is active work to be critically conscious of the systems in which we work, to ask whether we are as inclusive and affirming as we think

and say we are. What we are called to do is learn about and reflect on how equity and inclusion factor into our work as diversity practitioners.

Factoring Equity into Diversity Work

Equity refers to a state in which we all get what we need to survive or succeed based on where we are and where we want to go⁶. Equity is also tightly associated with principles of justice and fairness. It is important to recognize that equity is not the same thing as equality. Equality refers to sameness, as when describing the same rights and privileges that are granted to all citizens of a country. Equity considers the contextual experiences of people and recognizes that resources and power are not always distributed equally.



images from Tony Ruth's Equity Series⁷

Equity is an integral aspect of our diversity work because we want all members of our community to be successful, and that requires a deep understanding of their goals, where they are, what they need, and what barriers stand in their way. As a community, our goal should be to create systems that have the capacity to understand, affirm, and respond to the unique needs of every person without assuming what those needs are (see also Anti-Deficit Model). An equity-minded approach would have us recognize how systemic and institutional inequities impact a person's success, and not assume that failure to succeed is due solely to deficiencies in that person.

Supporting Diversity Work with Inclusion

Inclusion describes a state of being included within a group in such a way that allows for authentic and empowered participation and a true sense of belonging⁸. In order for everyone to have empowered participation, we must necessarily consider equity – does everyone have what they need in order to successfully participate in the group? Inclusion, then, comes down to how authentically someone can participate and is determined by the degree to which a person has to change, suppress, or abandon aspects of their personal and professional identities in order to feel like they are accepted into the group (see also

Anti-Deficit Model). The path to true belonging, then, is when someone feels that they have the resources they need, are actively encouraged to participate as their authentic self, and celebrated for being who they are.

In our efforts to build and sustain inclusive environments, we must constantly check our biases and assumptions and really listen to the experiences of those whom we say we want to include. If we care about being inclusive, we must pre-emptively analyze the systems in which we work to identify and change potential barriers to inclusion, ideally before people hit those barriers. There should be no room for rigid stances like, “this is the way science is done,” or “this is a sink or swim field.”

An Equity-Minded and Inclusive Approach to Diversity

“Perhaps one reason why efforts to diversify science have made little progress is that we’ve spent too much effort trying to inculcate diverse populations of students into the culture of science as opposed to changing the culture of science itself to be inclusive of them.”⁹

From the dialogues we are having with our trainees, it is clear that a narrow definition of diversity - increasing the number of scientists at UCSF that identify as women, Black, Latinx, American Indians/Alaska Natives, first-generation (FG) college students, sexual- and gender-minority students, and students with both visible and nonvisible (dis)abilities – is necessary but not sufficient. What we need is an equity-minded approach that allows us to think inclusively about diversity.

We propose a working definition of diversity as:¹⁰

- 1) Celebrating the innovation that results from the heterogeneity within our community. Heterogeneity here includes but is not limited to: personal and professional identities, world views, ways of thinking and expression, unique life experiences, problem solving strategies, work styles, attitudes and beliefs.
- 2) Resisting and counteracting the tendency of those with privilege and/or power to determine norms that are oblivious, indifferent, opposed to, or violent toward #1.
- 3) Deliberately and relentlessly promoting spaces and processes that invite, encourage, embrace, defend, and celebrate different ways of feeling and thinking about science and life.

Such an approach will not be easy so we must approach this work with a growth mindset.¹¹ This will be an ongoing process, and we will fail at times – in those moments, we must be able to listen to and honor the experiences of those excluded from our spaces and work to be more inclusive. Commitment to diversity work requires that we adopt a growth mindset and commit to being active participants in the ways we can, so that together we progress toward our goal of creating equitable and inclusive environments that beget true diversity.

Glossary of Important Terms

The terms below have been adapted from the School of Medicine's DEI Primer and Toolkit, with the addition of specific terms that are important for diversity practitioners within the Graduate Division (terms added or adapted are indicated with *). It is important to note that language changes. Some of the terms below may have developed new or more complex meanings from how you've learned about them previously. Likewise, these terms may change in context of how we use them in our community and in society. You should familiarize yourself with these terms and integrate them into your every-day interactions with colleagues and learners. Just as you would stay up-to-date with your particular field, building your knowledge and understanding of terms centered in national conversations about racism and oppression will empower you to be an active participant in conversations and initiatives.

Anti-Blackness

Anti-Blackness is a theoretical framework that describes societal devaluation and disregard for the lives and humanity of people racialized as Black.¹² The ideological roots of anti-Blackness are tied to the exploitation and dehumanization of Black people during chattel slavery. Anti-Blackness manifests as overt discrimination, violence, and structural/systemic racism against Black people, and in the de-prioritization of their issues.

Antiracist*

The opposite of 'racist' is 'antiracist,' and this term is used to describe what it means to actively fight against racism rather than passively consider one's self as not racist. "One either believes problems are rooted in groups of people, as a racist, or locates the roots of problems in power and policies, as an antiracist. One either allows racial inequities to persevere, as a racist, or confronts racial inequities, as an antiracist."¹³

Black, Indigenous, People of Color (BIPOC)*

"The term BIPOC stands for 'Black, Indigenous, People of Color,' it is meant to unite all people of color in the work for liberation while intentionally acknowledging that not all people of color face the same levels of injustice. By specifically naming Black and Indigenous people we are recognizing that Black and Indigenous people face the worst consequences of systemic white supremacy, classism and settler colonialism."¹⁴

Color-blindness

One mainstream approach race in the United States is to insist that race is unimportant (or unseen) and does not impact a person's achievements or abilities.¹⁵ However, because of racism, people of different races have different lived experiences. Espousing a color-blind ideology that race does not matter ignores the actual differences in lived experience that people have based on how others perceive and respond to them in conscious,

subconscious, and systemic ways. Becoming conscious of how race affects one's experiences in the world, or becoming color-conscious, is an important step in addressing racism.¹⁶

Critical Consciousness*

This model refers to a broad, analytical approach where one thinks critically about culture and power in any particular context. Critical consciousness requires that we recognize and challenge the biases that are shaped by our positionality in the system, and to question the culture, norms, attitudes, and beliefs that exist explicitly and implicitly. For the biomedical sciences, this means thinking critically about the culture of science, and how that culture produces and maintains social inequities.¹⁷ The Graduate Division's definition of diversity employs critical consciousness by recognizing the many factors that marginalize some but not others in the biomedical sciences, focusing both on recruiting and retaining trainees with diverse life experiences and values. Critical consciousness is required in order for educators to develop culture competence.

Cultural Competence*

"A model where educators intentionally foster a culture in which students feel they can be themselves. [...] This does not just mean being able to work with people from different cultural backgrounds; in this model, cultural competence means 'helping students to recognize and honor their own cultural beliefs and practices while acquiring access to the wider culture.' In university science and math settings, this means departments that deliberately broaden norms and practices so that students from nondominant cultures feel welcomed."¹⁷

Dignity*

State of being worthy; having privilege and honor; worthy, proper, fitting; to take, accept. This term is specifically used when referring to how we treat others with dignity, how we listen to their experiences and acknowledge that what they have to share is worthy of being heard and believed.

Ethnicity

Ethnicity, like race, is a social construct that has been used for categorizing people based on perceived differences in appearance and behavior. Historically, race has been tied to biology and ethnicity to culture, though the definitions are fluid, have shifted over time, and the two concepts are not clearly distinct from one another. According to the American Anthropological Society, "ethnicity may be defined as the identification with population groups characterized by common ancestry, language and custom. Because of common origins and intermarriage, ethnic groups often share physical characteristics which also then become a part of their identification--by themselves and/or by others. However, populations with similar physical appearance may have different ethnic identities, and populations with different physical appearances may have a common ethnic identity."¹⁸ Race and ethnicity, social constructions, are often conflated with, and used as a surrogate

for, ancestry. Ancestry more specifically and accurately identifies ancestral genetic lineage than does race or ethnicity.

Equality

Equality is a state/outcome that is the same among different groups of people. Equality is sameness.¹⁹

Equity*

Equity refers to a state in which we all get what we need to survive or succeed based on where we are and where we want to go.⁶ Equity is also tightly associated with principles of justice and fairness. It is important to recognize that equity is not the same thing as equality. Equality refers to sameness, as when describing the same rights and privileges that are granted to all citizens of a country. Equity considers the contextual experiences of people and recognizes that resources are not always distributed equally.

Identity*

“Identity is the composite of who a person is. Identity includes the way one thinks about oneself, the way one is viewed by the world, and the characteristics that one uses to define oneself, such as an individual’s gender identification, sexual orientation, place of birth, race, ethnicity, FG college status, profession, values, and even hobbies. Some aspects of identity are constant, while others change depending on stage of life and social context. In addition, a person can hold multiple identities that also intersect one another, such as Black, transgendered woman, scientist, spouse, parent, artist, bookworm, and athlete. Research on the persistence of [under-represented] populations has often highlighted specific aspects of identity such as race, ethnicity, gender, income, and FG status as particularly important factors in retention and success in college and in STEMM fields.”²⁰

“Individuals develop social identities to fill psychological needs, such as increasing self-esteem and reducing uncertainty about oneself. Developing social identities requires both a sense of belonging to a particular social group and recognition as an accepted member of the group from existing members of that social group. Accordingly, social identities are defined by a common set of norms, attitudes, traits, and stereotypes that together form a “prototype,” the typical or average representation of a group member. Individuals who deviate from this prototype—in STEMM, those individuals who are not White, male, heterosexual, able-bodied, middle-class and up, or otherwise historically represented as scientists—are more likely to be marginalized within the social group and not extended full membership. This marginalization, sometimes in the form of microaggressions, has the effect of barring UR students from benefiting fully from opportunities afforded to members of more well-represented and prototypical groups.”²⁰

Identity Interference*

“Identity interference occurs when cultural meanings and stereotypes assigned to social identities cause those with multiple identities to feel that one identity interferes with the successful performance of another identity. Resolving this interference by disidentifying, minimizing, or downplaying their devalued social identity can in turn challenge students’ sense of authenticity and sense of belonging in their discipline and can even result in lower academic or professional performance. Students who feel they must change themselves and their identities to fit in are more likely to experience depression, reduced psychological well-being, and impaired academic performance.”²⁰

Implicit Bias*

Bias consists of attitudes, behaviors, and actions that are prejudiced in favor of or against one person or group compared to another. Implicit bias is a form of bias that occurs automatically and unintentionally, that nevertheless affects judgments, decisions, and behaviors. Research has shown implicit bias can pose a barrier to recruiting and retaining a diverse scientific workforce.²¹

Institutional Racism*

As a system of social control, institutional racism is a guiding principle that helps theorists across disciplines examine the systemic practices and policies that result in wealth, employment, housing, criminal justice, and political power disparities. Racially biased systems can supplant individual motivations and lead non-racist people to unwittingly contribute to racist outcomes in criminal justice, education, and health systems.²² Although this concept might seem to focus on racial oppression and discrimination, scholars stress the importance of acknowledging “intersectional understandings which recognize the significance of seeing individuals as multiply positioned, with each identity (race/ethnicity, gender, class, etc.) irreducible to a discrete category or experience”.²³

Pipeline Metaphor*

The STEM pathway from college to a doctoral program and then entry into a professional career has traditionally been referred to as a pipeline. Flow through a pipeline evokes an image of a uniform fluid flowing at a uniform speed, with leaks depicting failure to keep up with the flow. This imagery fails to capture: the incredible heterogeneity of individuals within the scientific pipeline; the developmental processes that add to or decrease progression of individuals; and the varied levels of skills each has developed as they pass the traditional academic stage milestones. In other words, the pipeline analogy can easily distract from a focus on the different starting points of those who enter it and the development of talents that does or does not occur within it.²⁴

“A pipeline conjures a picture of a straight line from enrollment, through graduate school, ending at a faculty position. However, a faculty career is not a given; career development is more of a branching pathway than straight line, where individuals must make decisions

that could take them closer or further from academic research. These choices are often made with intention and do not represent accidental “leaking” from a linear path.”²

Race

The concept of race was constructed as a tool to categorize people with the purpose of validating racism. Race has no biological basis. During historical projects such as colonialism and slavery, race was artificially imposed on people in different political positions to create a moral hierarchy used to justify the harm inflicted by inequitable systems, exploitive capitalism, and white supremacy.^{13, 25} Although the construct of race is dynamic and evolves with changing social, political, and historical norms,²⁶ the construct perpetuated the false idea that there are static, innate characteristics that apply to sets of people despite diverse origins, life experiences, and genetic makeups. However, race is distinct from ancestry. Ancestry denotes people’s shared traits based the genetic similarities of their ancestors and accounts for the complexity of geographic variation and fluidity.²⁷ While race is socially constructed, the consequences of this social construct are experienced individually and collectively by communities in the form of racism. The effects of racism can be seen in differential outcomes in health, wealth, socioeconomic status, education, and social mobility in the United States.

Race Privilege

Race privilege is a term that identifies people who may be afforded privileges over others, usually because of their race’s relative historical or current proximity to whiteness when compared to another person identified as being of a different race.

Racism

Geographer and social theorist Dr. Ruth Wilson Gilmore defines racism as “the state-sanctioned and/or legal production and exploitation of group-differentiated vulnerabilities to premature death, in distinct and yet densely interconnected political geographies.”²⁸ Importantly, her definition centers on how people of color experience racism, rather than focusing on how race is imagined or intended by white people.²⁹ Racism exists in many forms. Institutional racism describes the “policies, practices and procedures that work better for white people than for people of color, regardless of intention.”³⁰ When describing how these institutions combine across history and present day reality to create systems that negatively impact communities of color, we call this structural racism. Our experiences in the world and interacting with institutions and social structures results in internalized racism that shapes our biases and beliefs about ourselves and others. These beliefs may manifest on an interpersonal level as individual racism, or the “pre-judgement, bias, or discrimination by an individual based on race”.³⁰ Although individually exercised, individual racism is internalized from racist institutions and systems. Because it exists in the context of structural racism, there is no such thing as “reverse racism” since the inequitable systems upon which racism is based are set up to benefit white people.

Systems of Oppression*

We live in a society with multiple intersecting structures of power – race and ethnicity, gender identity, sexuality, dis/ability, immigration status, religion, class/socioeconomic status, among others - which create more opportunities for some and fewer opportunities for others. These structures of power produce inequities and systems of oppression – racism, sexism, heterosexism, ableism, xenophobia, classism, elitism, and other forms of systemic discrimination. Anti-Black racism is particularly pervasive in the United States.

“In its traditional usage, oppression means the exercise of tyranny by a ruling group. [...] In dominant political discourse it is not legitimate to use the term oppression to describe our society, because oppression is the evil perpetrated by the Others. New left social movements of the 1960s and 1970s, however, shifted the meaning of the concept of oppression. In its new usage, oppression designates the disadvantage and injustice some people suffer not because a tyrannical power coerces them, but because of the everyday practices of a well-intentioned liberal society. [...] Oppression in this sense is structural, rather than the result of a few people’s choices or policies. Its causes are embedded in unquestioned norms, habits, and symbols, in the assumptions underlying institutional rules and the collective consequences of following those rules.”³¹

Five faces of oppression:^{31, 32}

- Exploitation - the systematic transfer of resources (such as land, wealth, or labor value) from one group to another.
- Marginalization - the prevention or limitation of full participation in society through exclusion from, for example, the job market, health care system, public benefits programs, or community activities.
- Powerlessness - a deprivation of the ability to make decisions about one’s living or working conditions.
- Cultural Imperialism - the valuing and enforcement of the dominant group’s culture, norms, and characteristics.
- Violence - includes physical, sexual, and emotional violence, and the threat of violence, as well as policies and structures that condone violence.

Historically Marginalized / Historically Underrepresented*

This term is used to make it easier to refer to groups of people whose representation in a collective (i.e. at an institution or in a professional field) is significantly lower than their representation in the population at large. Within the field of biomedical research and education (and STEMM fields in general) this term is also used to call out the effects of marginalization that members of these groups experience by not meeting the norms of the dominant culture that is white, well-educated, heterosexual, cis-gender and male. Another term that is commonly used is ‘underrepresented minorities’ abbreviated as URM.

Groups that are underrepresented at UCSF are defined as: U.S. citizens and permanent residents who are African American/Black; American Indian/Alaskan Native; Hispanic;

Native Hawaiian/other Pacific Islander; or multiracial when at least one of the preceding URM racial/ethnic groups was indicated.

Individuals historically marginalized in STEMM fields include women of all racial/ethnic groups and individuals specifically identifying as Black, Latinx, and American Indians/Alaska Natives, first-generation (FG) college students, sexual- and gender-minority students, and students with both visible and nonvisible disabilities.²⁰

**BIPOC scholars posit that ‘URM’ and other similar abbreviations are racist labels that misrepresents and obfuscates the unique marginalization that different groups experience. By lumping these different groups of people into one term, usually for the sake of making it easier to talk about them, it implies that underrepresentation is a permanent fixture of their identities.³³ We therefore encourage you to reflect on your own usage of terms like ‘underrepresented minorities,’ or ‘historically underrepresented.’ If your goal is to promote equity and inclusion, it is recommended that you explicitly name the individual groups to which you are referring, or use abbreviations that they have chosen for themselves (like BIPOC).

Whiteness

Often conversations about racism can feel personal, rather than focused on the systemic mechanisms that maintain or protect racism. In order to set the stage for productive conversations about racism at UCSF, we want to introduce the useful theoretical framework of whiteness. Whiteness is beyond white skin; it refers to a systematic prioritization that advantages white people and disadvantages people of color. The fundamental premise of the concept of whiteness is that being white is the standard and being a person of color is a deviation from this norm.³⁴ Whiteness influences everyone because it is a ubiquitous set of cultural assumptions to which we are all pressured to conform. It is, essentially, the water in which we all swim.³⁵ For example, consider what understood to be “normal” when Band-Aid describes a pale tan bandage as “skin tone”, when a patient expresses surprise that their doctor is Black, or when a person’s name is described as “unusual” when it is really just unfamiliar to someone. The normative ideals of whiteness often go unnamed, unexamined, and unquestioned. This has tangible consequences, and often violent effects, for those who do not default into the norms of whiteness. Whiteness, and its consequent white supremacy, permeate medicine and health care in complex and nuanced ways. A discussion or critique of whiteness is not a critique of white people, but of a system from which they benefit and often uphold.

White Fragility

Multicultural education scholar Dr. Robin DiAngelo describes white fragility as “a state in which even a minimum amount of racial stress becomes intolerable, triggering a range of defensive moves. These moves include the outward display of emotions such as anger, fear, and guilt, and behaviors such as argumentation, silence, and leaving the stress-inducing situation. These behaviors, in turn, function to reinstate white racial equilibrium.

Racial stress results from an interruption to what is racially familiar.” White fragility may be a learned and is often a subconscious emotional response, resulting from white people lacking the prior experience to develop the tools for constructive engagement across racial divides. It is nefarious in that it works to protect, maintain, and reproduce white privilege by centering the emotions of white people in dialogues about racism, thus impeding discussions about racist systems that need dismantling.³⁶

White Privilege

White privilege is a term that identifies disproportionate access to opportunities, privileges, protections, head starts, or benefits (eg. absence of burdens, barriers, oppression) that afford social and economic mobility that people perceived to be white enjoy that are not typically afforded to people of color. These benefits can be material, social, or psychological.³⁷ Anti-Blackness is one mechanism that establishes and reinforces white privilege.

Key Frameworks

Critical Race Theory (CRT)

Critical Race Theory (CRT) emerged from legal scholarship in 1989 in response to the limited and narrow scope of how law defined and addressed racism. It offered a set of key racial equity principles and a methodology to illuminate and combat the root cause of structural racism. This methodology has since been adapted to the field of health and medicine to help scholars attend to equity while carrying out research.³⁸ Critical race theorists recognize that racism is ingrained in the United States’ historical fabric and argue we must explicitly identify and name racial power dynamics in order to address racism.¹⁶ CRT challenges the fundamental assumption that science is objective because scientific activity occurs within, and is informed by, the social context in which we live, which is biased.³⁹

Anti-racism

Anti-racism is the active process of identifying and eliminating racism by changing systems, organizational structures, policies and practices and attitudes, so that power is redistributed and shared equitably. Anti-racism examines and disrupts the power imbalances between racialized people and non-racialized (white people). In order to practice anti-racism, a person must first understand:

- How racism affects the lived experience of people of color and Indigenous people

- How racism is systemic and manifested in both individual attitudes and behaviors as well as formal policies and practices within institutions
- How both white people and people of color can, often unknowingly, participate in racism through perpetuating inequitable systems
- That dismantling racism requires dismantling systems that perpetuate inequity such as exploitive capitalism

Remember, these concepts are complex, so these conversations can be challenging. Try to lean into the discomfort with the goal of talking about systems, and our roles in perpetuating or dismantling unjust systems, rather than attacking or defending one's character.

Anti-Deficit*

An anti-deficit framework is used to challenge social and systemic barriers when it comes to student success and has emerged as a way to combat pervasive deficit thinking. Deficit thinking has its foundation in the idea that students possess deficits - motivational, cognitive, resource, experiential, cultural, or otherwise.^{40, 41, 42, 43} A deficit thinking approach focuses on assumed inadequacies of the students and seeks to provide programs to bridge skill gaps and assist the integration of the student into the prescribed norms of success. Deficit thinking is seen as a form of assimilation of groups or individuals into the dominant culture. An anti-deficit framework, instead, focuses on understanding and celebrating the strengths a student possesses that allow them to be successful despite institutional or systemic barriers to the student's success. Deficit approaches can perpetuate (notions) of assimilation, stereotype threat, exacerbate identity interference, and further affirms whiteness.

In the biomedical sciences, efforts to increase diversity have focused on increasing a diverse "pool" of scientists by bridging skill gaps for graduate students who may be viewed as lacking or inferior, compared to others. More recent research focused specifically on graduate level biomedical training suggest that barriers to increasing diversity are more deeply rooted in the culture of biomedical training; it is an issue of inclusion, racism, and sexism.⁴⁴ An anti-deficit approach, then, recognizes that we must critically evaluate the institutional policies, practices, and norms that support such a non-inclusive and oppressive culture. An anti-deficit approach would have us recognize that our biases impact the assumptions we make about people and what they may need to be successful. Instead, we should listen to individuals to learn from them what their strengths are, and what their unique needs are in order to know how to best support their success. An anti-deficit approach would have us come to understand and celebrate the strengths and personal identities of our trainees that enrich our community.

An example of an anti-deficit, anti-racist program at UCSF is the [Initiative for Maximizing Student Diversity \(IMSD\) Program](#).

References

1. Karen Weddle-West and Kristie Fleming. (2010). *Extending the Pipeline: Model Programs for Enhancing Diversity and Inclusiveness in Graduate School at the University of Memphis*. Washington, DC: Council of Graduate Schools.
2. Griffin K.A. (2020) *Institutional Barriers, Strategies, and Benefits to Increasing the Representation of Women and Men of Color in the Professoriate*. In: Perna L. (eds) *Higher Education: Handbook of Theory and Research*. Higher Education: Handbook of Theory and Research, vol 35. Springer, Cham.
https://doi.org/10.1007/978-3-030-11743-6_4-1
3. Hoffman, Garrett D., and Tania D. Mitchell. "Making Diversity 'Everyone's Business': A Discourse Analysis of Institutional Responses to Student Activism for Equity and Inclusion." *Journal of Diversity in Higher Education*, vol. 9, no. 3, 2016, pp. 277–89. DOI.org (Crossref), doi:10.1037/dhe0000037.
4. Ahmed, Sara. *On Being Included: Racism and Diversity in Institutional Life*. Duke University Press, 2012.
5. Tanner, Kimberly D. "Learning to See Inequity in Science." *CBE—Life Sciences Education*, vol. 8, no. 4, Dec. 2009, pp. 265–70. DOI.org (Crossref), doi:10.1187/cbe.09-09-0070.
6. What the Heck Does 'Equity' Mean? (SSIR).
https://ssir.org/articles/entry/what_the_heck_does_equity_mean. Accessed 25 Sept. 2020.
7. "Tony Ruth's Equity Series (2019)." CX Report, 2 June 2020,
<https://cx.report/2020/06/02/equity/>.
8. "Racial Equity & Inclusion Framework." The Annie E. Casey Foundation,
<https://www.aecf.org/resources/race-equity-and-inclusion-action-guide/>. Accessed 25 Sept. 2020.
9. Tanner, Kimberly, and Deborah Allen. "Cultural Competence in the College Biology Classroom." *CBE—Life Sciences Education*, vol. 6, no. 4, Dec. 2007, pp. 251–58. DOI.org (Crossref), doi:10.1187/cbe.07-09-0086.
10. "Carlos Hoyt PhD, LICSW." Carlos Hoyt PhD, LICSW, <http://www.carloshoyt.com/>. Accessed 25 Sept. 2020.
11. Dweck, Carol. "What Having a 'Growth Mindset' Actually Means." *Harvard Business Review*, Jan. 2016. hbr.org, <https://hbr.org/2016/01/what-having-a-growth-mindset-actually-means>.
12. ross, k.m. (2020, June 4th). *Call it what it is: Anti-blackness*. New York Times. <https://www.nytimes.com/2020/06/04/opinion/george-floyd-anti-blackness.html>
13. Kendi, Ibram X. *How to Be an Antiracist*. 2019.
14. "BIPOC & GND Crash Course." Sunrise Movement,
<https://www.sunrisemovement.org/bipoc-gnd/>. Accessed 25 Sept. 2020.
15. Flagg B. "'Was Blind, But Now I See': White Race consciousness and the requirement of discriminatory intent". *Michigan Law Review*.1993;91:953-1017.

16. Crenshaw K, Gotanda N, Peller G, Thomas K. Introduction. In *Critical Race Theory: The Key Writings that Formed the Movement*. New York, NY: The New Press; 1996.
17. Johnson, Angela, and Samantha Elliott. "Culturally Relevant Pedagogy: A Model To Guide Cultural Transformation in STEM Departments." *Journal of Microbiology & Biology Education*, vol. 21, no. 1, Feb. 2020. DOI.org (Crossref), doi:10.1128/jmbe.v21i1.2097.
18. American Anthropological Association Response to OMB Directive 15: Race and Ethnic Standards for Federal Statistics and Administrative Reporting. September 1997. Available: www.americananthro.org/ParticipateAndAdvocate/CommitteeDetail.aspx?ItemNumber=2223. Retrieved November 20, 2019
19. Visual Glossary. *Innovating Education in Reproductive Health*. Innovation Education 2015. Available: <https://www.innovating-education.org/course/structures-self-advancing-equity-and-justice-in-sexual-and-reproductive-healthcare/>. Retrieved November 12, 2019.
20. Byars-Winston, Angela, et al., editors. *The Science of Effective Mentorship in STEMM*. The National Academies Press, 2019.
21. Implicit Bias | SWD at NIH. /sociocultural-factors/implicit-bias. Accessed 25 Sept. 2020.
22. Toldson. "Transdisciplinary Convergence to Accelerate Strategies to Mitigate Institutional Racism in Criminal Justice, Education, and Health Systems (Editor's Commentary)." *The Journal of Negro Education*, vol. 89, no. 1, 2020, p. 1. DOI.org (Crossref), doi:10.7709/jnegroeducation.89.1.0001.
23. Phillips, Coretta. "Institutional Racism and Ethnic Inequalities: An Expanded Multilevel Framework." *Journal of Social Policy*, vol. 40, no. 1, Jan. 2011, pp. 173–92. DOI.org (Crossref), doi:10.1017/S0047279410000565.
24. McGee Jr, Richard, et al. "Diversity in the Biomedical Research Workforce: Developing Talent." *Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine*, vol. 79, no. 3, May 2012, pp. 397–411. DOI.org (Crossref), doi:10.1002/msj.21310.
25. Roberts D. *Fatal Invention: How science, politics, and big business re-create race in the twenty-first century*. New York, NY: The New Press; 2011.
26. (15 Morning, 2011)
27. Roberts D. *Fatal Invention: How science, politics, and big business re-create race in the twenty-first century*. New York, NY: The New Press; 2011.
28. Gilmore, Ruth Wilson. "Race and Globalization." In *Geographies of Global Change*, 2d ed. Ed. P. J. Taylor, R. L. Johnstone, and M. J. Watts. Oxford: Blackwell, 2002.
29. Brooks, Joanna. "Working Definitions: Race, Ethnic Studies, and Early American Literature." *Early American Literature*, vol. 41, no. 2, 2006, pp. 313–320. JSTOR, www.jstor.org/stable/25057448.
30. Differences Matter "Talking About Race Toolkit"
31. Young, I. M. (1990). Five faces of oppression. In *Justice and the politics of difference* (pp. 39- 65). Princeton, NJ: Princeton University Press.

32. Shlasko, Davey. "Using the Five Faces of Oppression to Teach About Interlocking Systems of Oppression." *Equity & Excellence in Education*, vol. 48, no. 3, July 2015, pp. 349–60. DOI.org (Crossref), doi:10.1080/10665684.2015.1057061.
33. Williams, Tiffani L. "Underrepresented Minority" Considered Harmful, Racist Language. <https://cacm.acm.org/blogs/blog-cacm/245710-underrepresented-minority-considered-harmful-racist-language/fulltext>. Accessed 25 Sept. 2020.
34. McLaren P. Whiteness is. . . the struggle for postcolonial hybridity. In J. Kincheloe, S. Steinberg, N. Rodriguez, and R. Chennault (Eds.). *White Reign*. New York: St. Martin's Griffin; 1998.
35. Tatum, BD. "Why Are All the Black Kids Sitting Together in the Cafeteria?" And Other Conversations About Race. New York: Basic Books, 1997.
36. DiAngelo R. White Fragility. *International Journal of Critical Pedagogy*, Vol3 (3) 2011 pp 54-70.
37. McIntosh P. *White Privilege and Male Privilege: A personal account of coming to see correspondences through work in women's studies*. Wellesley, MA: Wellesley College, Center for Research on Women; 1988.
38. Ford, C, et al. Critical Race Theory, Race Equity, and Public Health: Toward Antiracism Praxis. *American Journal of Public Health*, 1 Sept 2010. Vol 100 No. S1
39. Ford, CL; Airhihenbuwa, CO. "Commentary: Just What is Critical Race Theory and What's It Doing in a Progressive Fields Like Public Health?" *Ethn Dis*. 2018; 28 (Suppl 1): 223-230.
40. Mejia, Joel, et al. "Critical Theoretical Frameworks in Engineering Education: An Anti-Deficit and Liberative Approach." *Education Sciences*, vol. 8, no. 4, Sept. 2018, p. 158. DOI.org (Crossref), doi:10.3390/educsci8040158.
41. Pérez II, D., Ashlee, K. C., Do, V. H., Karikari, S. N., & Sim, C. (2017). Re-conceptualizing student success in higher education: Reflections from graduate student affairs educators using anti-deficit achievement framework. *Journal on Excellence in College Teaching*, 28(3), 5-28.
42. Harper, Shaun R. "An Anti-Deficit Achievement Framework for Research on Students of Color in STEM." *New Directions for Institutional Research*, vol. 2010, no. 148, Dec. 2010, pp. 63–74. DOI.org (Crossref), doi:10.1002/ir.362.
43. Smit, Renee'. "Towards a Clearer Understanding of Student Disadvantage in Higher Education: Problematising Deficit Thinking." *Higher Education Research & Development*, vol. 31, no. 3, June 2012, pp. 369–80. DOI.org (Crossref), doi:10.1080/07294360.2011.634383.
44. Gibbs, Kenneth D., and Kimberly A. Griffin. "What Do I Want to Be with My PhD? The Roles of Personal Values and Structural Dynamics in Shaping the Career Interests of Recent Biomedical Science PhD Graduates." *CBE—Life Sciences Education*, vol. 12, no. 4, Dec. 2013, pp. 711–23. lifescied.org (Atypon), doi:10.1187/cbe.13-02-0021.



**This work is licensed under a Creative Commons License
Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)**

You may:

- **Share** - copy and redistribute the material in any medium or format.
- **Adapt** - remix, transform, and build upon the material.

Under the following terms:

- **Attribution** - you must give appropriate credit, provide link to license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
- **Non Commercial** - you may not use the material for commercial purposes.
- **ShareAlike** - if you remix, transform, or build upon the material you must distribute your contributions under the same license as the original.
- **No additional restrictions** - you may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

See <https://creativecommons.org/licenses/by-nc-sa/4.0/legalcode> for full license.

