

# SCIENCE AND RACE: HISTORY, USE, AND ABUSE

## Class 2 – SEPTEMBER 28, 2016 **BIOMEDICINE AND RACE**

### GLOSSARY TERMS:

1. **EUGENICS:** “eugenics is the attempt to improve the human species by controlling which individuals can or cannot reproduce.” (Ps. Eugenics has had disastrous social consequences whenever it was applied.)
2. **DNA:** The genetic information contained in cells, the fundamental working units of all organisms.
3. **GENE:** An arrangement of DNA which produces proteins and acts as the functional unit of heredity
4. **ALLELE:** a particular variant of a gene; for example, some alleles of a certain gene might produce lighter pigmentation, while others might produce darker pigmentation; for most human genes, individuals have two alleles (one inherited from the mother, and the other from the father)
5. **HOMOZYGOUS:** having two identical copies of the same allele
6. **HETEROZYGOUS:** having two different copies of the same allele
7. **GENOME:** all of the genetic material of an organism
8. **HEREDITARY:** Inherited; passed down from parent to child, including traits like hair or eye color, or particular genes or DNA variants; some diseases are inherited
9. **ENVIRONMENT:** The non-genetic factors which influence the development of traits and individuals (nutrition, stress); also the physical area in which individuals live and to which they adapt over time (e.g. UV exposure)
10. **EPIGENETICS:** The turning off and turning on of genes that changes how the genes work, but not the genetic sequence itself; relates to human diseases such as cancer
11. **MICROBIOME:** The bacteria found all over and in the human body, including on the skin and in the gut. They begin accumulating at birth, and are important for immunity to infection, digestion, and other functions.
12. **ANCESTRY:** A person’s family background or genealogy; often used in genetics to describe the particular alleles (or gene variants) that an individual received from each of his or her ancestors. (e.g. A person with one African parent and one European parent will have “African ancestry” for some genes and “European ancestry” for other genes.)
13. **RACE:** One of the groups into which people can be divided based on certain physical qualities.
14. **ETHNICITY:** An ethnic group or ethnicity is a category of people who identify with each other based on similarities, such as common language, ancestry, social or cultural groups, or national experiences.

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15. **PHRENOLOGY:** The study of the size and shape of a person's skull used to determine a person's character and mental abilities based on the idea that certain parts of the brain are associated with certain mental traits. Although popular in the early 1800s, today, it is not considered a real science
16. **BIAS:** Prejudice; preconceived notions that tend to result in unfair treatment.
17. **SOCIAL IDENTITY:** A person's sense of who they belong based on the groups to which they belong
18. **POLYGENESIS:** the idea that different races evolved separately from pre-human ancestors
19. **MONOGENESIS:** the idea that all humans evolved as a single species from the same pre-human ancestors