

FOOD, HEALTH & RACE: REDUCED INEQUALITIES

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United Nations Sustainable Development Goal: Reduced Inequalities

SDG # 10: “Reduce inequalities within and among countries”

Disciplines: Biology and Sociology

Courses: BIOL 150 & SOCY 100

Campuses: Rockville & Takoma Park/Silver Spring



Modified from: <https://en.unesco.org/node/250494/sites>

Assignment 1: FOOD



Learning Outcomes:

- Biology: Identify the structure and functions of macromolecules important to living things
- Sociology: Identify components of culture and understand how structural inequalities impact individuals

Link to Reduced Inequalities: food insecurity

Source: https://fr.m.wikipedia.org/wiki/Fichier:Couscous_of_Fes.JPG

Assignment 1: FOOD

Outputs:

- Biology: A Report and a Reflective summary in e-Portfolio
- Sociology: Written assignment & poster design

Service Learning: Students will design a poster that includes their favorite food and information about either the nutritional value of the dish or information on food resources available to Montgomery College students on all campuses.

Assignment 2: Disparate Health Outcomes

Learning Outcomes:

- Biology: Analyze and interpret experimental results to reinforce biological principles
- Sociology: students will understand how social factors contribute to disparate health outcomes

Link to Reduced Inequalities: Social factors contribute to disparate health outcomes amongst different populations based on race, gender, socio-economic class, etc...



Source: <http://collegetribune.ie/health-inequality-inequality-in-third-level-education/>

Assignment 2: Disparate Health Outcomes

Outputs and Service Learning:

- Biology: Analyze data from Montgomery County's Health Services (DHHS) and write a report.
- Sociology: Original qualitative and/or quantitative research; wiki on Social Determinants to health in Montgomery County; the work will be collaborative.



Source: Yudell *et al.*, 2016

Assignment 3: Race



Source: amazingscience.news/2017/10/the-genes-behind-human-skin-colour

Learning Outcomes:

- Biology: Apply basic mechanisms of heredity to predict inheritance of traits.
- Sociology: Students will gain a practical understanding of race as a social construct.

Link to Reduced Inequalities:

In many countries, including the US, race is a significant barrier to equality. Understanding the fallacy of race can help students think more comprehensively and broadly about how to reduce inequalities.

Assignment 3: Race

Outputs and Service Learning:

- Biology and Sociology: Analysis of data relating to skin pigmentation in different parts of the world.
- **Sociology students** will compare race categories found in Montgomery County census data over three-five different time periods and create a series of tweets or a short video that captures their understanding of race as a social construct.
- **Biology students** will have a summative assessment on the activity (group presentations) and write a reflective summary in e-Portfolio.

Source: Crawford *et al.*, 2017

Skin pigmentation is highly variable within Africa

Fig. 2. Melanin distributions. Histograms of melanin index computed from under-arm measurements with a DSM II ColorMeter for all individuals in each population as described in (70). Skin tones were visualized by displaying the scaled mean red, green, and blue values from the ColorMeter for individuals binned by melanin index.

