

CTE Public and Community Health

Career Technical Education (CTE) Public and Community Health is a year-long, (g) credit elective course that uses Public Health as a framework to investigate health inequities caused by unequal access to healthy food. Students explore nutrition, diet-related disease, and the public health process in preparation to design and implement projects to create more equitable access to food in their school community. Students discuss and think critically about their personal relationship to food and the food cultures they have grown up in.

CTE Public and Community Health is taught after school hours during an hour-long seventh period and during a 3-hour evening block period in the Edible Schoolyard kitchen classroom at King Middle School. Students also engage in internships outside of class hours with local organizations working towards equitable, sustainable, local food systems that positively impact the health of their community. The chart below outlines how learning progresses over the course of 6 units and 71 lessons, including the unit goals and key content and activities for each lesson.

UNIT 1: FOOD & COMMUNITY		
<p>Goal: Students will consider and explore their relationship to food and the meanings that food holds for them and for others. Students also learn the fundamentals of working collaboratively in a kitchen.</p> <p>Overview: Through cooking, discussion, structured reflection, guest lectures, and group-building activities, students build relationships with one another and develop their fluency operating in the kitchen classroom. In this unit, students develop the foundational skills required for the rest of the course.</p>		
Lessons	Key Content	Main Activity
Lesson 1: Orientation	Course objectives and schedule. Students decide if they wish to enroll or drop.	Students review the syllabus and listen to a short presentation about internships.
Lesson 2: Kitchen Orientation	Kitchen layout, systems, and expectations.	Students who have worked in the Edible Schoolyard kitchen lead a tour for students who have not worked in the space before.
Lesson 3: Team-Building	Team-building and getting to know one another.	Students play a variety of team-building games in order to get to know one another and start building a classroom culture.

Lesson 4: Cooking Together	Basic kitchen skills, including making precise measurements and knife skills.	Students observe a knife skills demonstration. They practice knife skills as they prepare a recipe for minestrone soup.
Lesson 5: Reading Recipes	Written recipes tend to follow a standard basic format that includes a list of ingredients and step-by-step instructions. Reading a recipe carefully helps to ensure success in cooking that food.	Students complete a group reading activity highlighting important steps in written recipes. Students read recipes and give verbal instructions to their peers.
Lesson 6: Cleaning a Kitchen - Guest Lecture Cal Peternell	Cleaning is an integral part of cooking. There are many components of a kitchen that must be cleaned before the job is finished.	Students practice cleaning the kitchen using a checklist to ensure the job is finished.
Lesson 7: Self-Determination in Food and Cooking	There are many factors that influence how much control we have over what we eat. Recognizing and reflecting on these factors can increase the agency we have over our food.	Students discuss the limitations on their agency and explore ways to expand it.
Lesson 8: Preparing and Sharing Food	Preparing food for another person can be an act of care and an expression of love.	Students talk about their experiences of giving and receiving food and the emotions they've felt during those experiences.
Lesson 9: Guest Lecture Expectations and Norms	Behavior expectations and class norms for guest lectures are slightly different from those of a standard class. Demonstrating respect for guests is paramount.	Students complete a group brainstorm on respectful behavior.
Lesson 10: Private Chef Work - Guest Lecture Chef Braggs	There are career opportunities in many different fields of culinary practice including restaurant, hotel, catering, and private chef work.	Students observe Chef Terry Braggs' lecture about his experience as a professional private chef.
Lesson 11: Introduction to Measure D (Berkeley's Soda Tax)	Measure D resulted in a sugar sweetened beverage (SSB) tax designed to reduce SSB consumption and fund nutrition education programs.	Students watch a video on the Measure D campaign and view campaign materials.

Lesson 12: Youth Activism in Food and Health - Guest Lecture Dante Kaleo Alnas-Benson	Strong community outreach and engagement drove the Measure D campaign to an overwhelming victory. SSB tax revenue has supported nutrition programs since.	Youth Activist Dante Kaleo Alnas-Benson shares stories of his involvement in the Measure D campaign and about his current work.
Lesson 13: Overview of Internships	Paid internships are available to all students in the class. Students must complete HR enrollment with the district to be eligible.	Students view a presentation on internship opportunities and consider which they are most interested in.
Lesson 14: Professionalism 101 and Workplace Responsibility	Sometimes perseverance and completing boring tasks are necessary parts of a job. Professionalism also includes being aware of workplace policies around sexual harassment and technology use.	Students complete a sixty-page onboarding packet including reviewing all of BUSD's employee policies.
Lesson 15: Onboarding with BUSD - Guest Expert Lona Kelly	Completing paperwork and bringing necessary documents are essential to being hired.	Students experience an onboarding meeting with a BUSD HR specialist.

<p>UNIT 2: FOOD & HEALTH</p> <p>Goal: Students will examine the relationship between food and health and take the food handlers certification exam.</p> <p>Overview: Students learn proper food handling and safety practices and take the food handlers certification exam. Through discussion and structured reading activities, students build a basic understanding of the causes, symptoms, and impacts of food-borne illnesses and diet-related diseases. Then, they reflect on cultural narratives around nutrition and food as they relate to health through analysis of nutrition guides, cooking activities, and discussion. Students discuss a broad definition of nutrition in relation to food and food practices, and consider the emotional dimension of how emotional relationship to food impacts nutrition/health. Something media literacy, analysis reflect on their own understandings of nutrition, build an understanding of nutrition and health as culturally-specific practices,</p>		
Lessons	Key Content	Main Activity
Lesson 16: Intro to Food Safety	Germs cause most foodborne illness. Washing hands, keeping clean, and properly cooking foods reduce the odds of spreading diseases.	Students play Jeopardy game to highlight the knowledge they already have and learn new concepts in food safety.
Lesson 17: Food Safety	Temperature control is essential for	Students complete an online

Course and Exam	avoiding food spoilage and bacterial growth. Sick people should not handle food. Proper hand washing is the most important way to stop the spread of foodborne illness.	Food Safety Certification Course that includes videos and slideshows. Students then take the Food Safety Certification Exam and earn their Food Handler Cards.
Lesson 18: Sugar and Food Culture Readings	Diets high in refined sugar are poor for your health and increase your risk of diabetes and heart disease.	Students complete a jigsaw reading of facts sheets from UCSF's Sugar Science program.
Lesson 19: Apple Crisp and Personal Relationship to Sugar	Although too much refined sugar is harmful to our health, foods that contain sugar often hold immense cultural and personal significance. It is important to honor the meanings foods hold for us as we develop "healthy" relationships to food.	Students cook and eat Apple Crisp, and discuss their personal relationships to sugar and "unhealthy" foods. Students read an excerpt from "The Gluten Lie" about the Edible Schoolyard and sugar.
Lesson 20: Nutrition Guides Around The World	Understandings of health and nutrition vary by culture. There is no one way to define "healthy" eating. However, there are some basic principles that most people agree on.	Students compare nutrition guides from around the world in a gallery walk activity. They identify similarities and differences between the guides to start developing their own definitions of "healthy" eating. They draw a representation of their current diets in the style of a nutrition guide.
Lesson 21: Cooking the Nutrition Guide	Nutrition guides are irrelevant if we don't apply our understanding of them to our diets and how we feed ourselves.	Students think of meals they cook or eat at home and compare them to nutrition guidelines. Students then plan changes to their meals that would align them with nutrition guidelines.

UNIT 3: FOOD & PUBLIC HEALTH

Goal: Students will be able to describe, explain, and give examples of a public health approach to addressing food-related health issues.

Overview: In this unit, students focus on four key steps of a public health approach: 1) identify, 2) understand, 3) intervene, and 4) evaluate through a case study of the 2014

<p>Berkeley Measure D to tax sugar sweetened beverages. Students learn through guest lectures, structured discussions, jigsaw readings, cooking activities, and analyzing a local public health campaign as a case study. Through learning about health disparities in their local community, students analyze and discuss the relationship between surveillance, identification, intervention, and evaluation. Students use the social-ecological model to classify various social determinants of health. Students then propose interventions designed to reduce diet-related disease for each layer of the social ecological model.</p>		
Lessons	Key Content	Main Activity
Lesson 22: Diabetes Statistics	Diabetes and pre-diabetes are serious diet-related health conditions. Their prevalence varies by state and racial/ethnic groups.	Students examine the 2017 National Diabetes Statistics Report. They learn about the national prevalence of diabetes and pre-diabetes, and how prevalence varies by state and by racial/ethnic groups.
Lesson 23: Berkeley Health Status Report	The prevalence of diabetes in Berkeley varies by geography and racial/ethnic groups. Analysis of these trends reveals health disparities within the community.	Students complete a jigsaw reading activity of the Berkeley Health Status report.
Lesson 24: Relationship to Healthy Food	Everyone’s relationship to healthy food is different, and is shaped and impacted by a variety of factors. “Health food” and “Healthy” food are not necessarily the same thing.	Students discuss a variety of prompts around healthy food and examine their own narratives.
Lesson 25: Social-Ecological Model of Public Health	Public health’s socio-ecological model is one way of modeling how the health of an individual or community may be simultaneously impacted by environmental factors on a variety of scales.	Students complete a structured note taking activity in which they draw the social-ecological model.
Lesson 26: Internships and Performance Evaluation	Most professional workplaces operate under a shared set of basic expectations. It will be important to understand and follow these expectations while completing the internships for this course.	Students observe a presentation about internships available to them. Students generate a list of positive workplace behaviors that is synthesized into a rubric they will be assessed with.
Lesson 27: Food Culture Interventions	Food culture can be shifted towards healthier norms through public	Students watch, discuss, and analyze a short film on

	health interventions.	unhealthy food culture.
Lesson 28: Public Health Interventions	Public health interventions can target each level of the social ecological model.	Students complete a group brainstorm to populate a chart with a variety of food focused public health interventions.
Lesson 29: Evaluations 101	Evaluation is crucial to successful public health interventions because it provides the opportunity to gather information on whether the current approach is working or not.	Students complete a jigsaw reading of an academic journal guide to Public Health Evaluation.
Lesson 30: Public Health and Food Policy - Guest Lecture Leyla Marandi, MPH	Government policy is a powerful driver of change. Influencing purchasing guidelines for school food would be a powerful driver of change towards a healthier food system.	Students hear from a local public health and food policy advocate on her work guiding school food purchasing policies
Lesson 31: Cooking at “Soul Food Junkies” as a public health event	Students contextualize and describe the project they will engage in the following day. Students practice describing the purpose and goals of the course.	Students discuss how the event the following day relates to the public health approach. They develop material to share that discussion at the event.
Lesson 32: Cooking Soul Food at South Branch Berkeley Library	Soul food is a food tradition with deep roots in Southern Black culture. Recognizing the cultural history of this cuisine is an important way of honoring the culture it comes from.	Students discuss the roots and history of Soul Food. They prepare food and serve it at a City Public Health hosted film screening of “Soul Food Junkies.”

UNIT 4: PUBLIC HEALTH IN PRACTICE

Goal: Students will be able to give examples of food projects that are public health endeavors. For each example students will be able to describe the positive health outcomes associated with the project as well as discuss strategies to increase the reach or improve outcomes.

Overview: Students will explore food and nutrition focused public health projects for each level of the social ecological model. At the individual level they are participating in this class and setting personal goals and aspirations for healthy eating. For the organizational level they see the work of BUSD’s Nutrition Services to create an environment rich with healthy foods. Berkeley Food Network provides an important examples of an organization working against malnutrition and hunger at the community level. Students examine and give feedback on the

<p>BUSD Wellness Policy to learn about the importance of public policy in shaping the other layers.</p>		
Lessons	Key Content	Main Activity
Lesson 33: Intentions for 2019	Setting goals and aspirations can be an important first step in bringing them to life. Taking time to nourish and care for oneself is also an important practice in achieving goals.	Students engage in reflection and intention-setting in the garden, followed by harvesting produce and cooking a healthy, delicious meal.
Lesson 34: Wellness Policy	Public policy plays an important role in steering action and change.	Students do a gallery walk and silent conversation using post its to comment on portions of the wellness policy.
Lesson 35: Assessment and Feedback on Course END OF SEMESTER 1	Students evaluate how much they have learned over the course of the semester and provide feedback on their experience.	Students complete a group cooking challenge and fill out a self assessment/course feedback form.
Lesson 36: Professional Communication	Practices for professional settings include certain norms of communication, timeliness, honesty, and admission of errors.	Students practice communicating in difficult workplace scenarios and through the process highlight a few key insights for maintaining professional communication.
Lesson 37: School Food - Guest Lecture BUSD Executive Chef Bonnie Christensen	School Food has many nutrition regulations and often operates on a very large scale.	Student listen to a guest lecture from BUSD's Director of Nutrition Services.
Lesson 38: School Food as Public Health	School Food is a key public health program to fight malnutrition.	Students read and respond to articles describing school food programs, particularly Free and Reduced meal programs.
Lesson 39: School Food Interventions	Students consider and ideate how to improve school food programs for improved community health	Students discuss and brainstorm in small groups on how to improve school food.
Lesson 40: Hunger and Health	Hunger is often caused by food insecurity - having limited access to nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in	Students read and discuss articles and factsheets on hunger and food relief programs in their own community.

	socially acceptable ways. People experience food insecurity because they don't have enough money to buy food, or don't have access to resources to get food. There are a variety of ways to address these issues.	
Lesson 41: Fighting Hunger - Guest Lecture Sarah Palmer DeFrank of Berkeley Food Network	Food insecurity is a widespread issue in many communities that is often accompanied by stigma or judgment. There are a variety of ways the people work to address food insecurity, including traditional pantry models and food network models.	Students hear from the Director of a local non-profit organization mobilizing to meet food needs in Berkeley.

<p>UNIT 5: PUBLIC HEALTH PROJECTS</p> <p>Goal: Students will be able to design and implement a project to increase access to healthy food in their school community. Students will be able to describe how their approach is responsive to community needs, based on interviews and surveys with community members, and concisely describe their project goals and outcomes in writing and through verbal presentations.</p> <p>Overview: Students will use design thinking to identify student food needs not currently being met by the existing food systems. Student groups will develop multiple potential solutions through rapid prototyping before selecting one strategy to carry out. Students will write project proposals, implement their projects, and complete project reports modeled on the Healthy Berkeley Grant. Students will practice presenting their projects to their peers in preparation for sharing at the end-of-year dinner.</p>		
Lessons	Key Content	Main Activity
Lesson 42: RFP and Outline	Students will learn about the Request for Proposals processes for the Healthy Berkeley grant and receive their project assignment	Students read each component of their project assignment aloud as a group and reiterate their understanding of the assignment and how it relates to Healthy Berkeley grant.
Lesson 43: Design Thinking Intro - Guest Lecture with Angela McKee-Brown	Design Thinking is one process for generating creative solutions to problems or tasks.	Students see a presentation on design thinking from a guest lecturer.

Lesson 44: Design thinking sprint on school breakfast	Students apply the design thinking process to school breakfast. Students reflect on their experience with the process and how it supported them.	Students complete a design thinking sprint by interviewing their peers, defining the problem, ideating solutions, and giving and receiving feedback.
Lesson 45: Share and review ideas on school breakfast + quick cooking lesson + Prep for empathizing	Students learn the importance of giving and receiving feedback and iterating upon their concepts.	Students pair up groups and take turns presenting their ideas and providing feedback.
Lesson 46: Question Crafting, Interviewing, and Empathizing	Students learn about crafting questions and techniques for empathetic interviewing. Students learn how group dynamics are an important aspect in team projects.	Students begin drafting questions for their interviews. Students reflect upon their own preferences in group work and form groups.
Lesson 47: Empathetic Interviewing	Judgemental and leading questions limit the kind of information one is able to get through a survey or interview process. They are not a best practice in surveying and interviewing.	Students consider how different versions of a similar question can make interviewees respond and feel different. Students continue to draft their interview questions and plan their interviews.
Lesson 48: Define	Students will learn how to categorize and group the information they've gathered in interviews to help their design process.	Students share the insights from their interviews and create an empathy map to help them understand their user's needs and insights.
Lesson 49: Define cook	"How might we..." statements help turn insights into questions that promote creative thinking by offering different frames through which to view a problem.	Students will write their insights on a poster board and then craft "How might we..." statements for each insight.
Lesson 50: Ideate	Intentionally building an environment to support creative thinking can help teams to develop more innovative and appropriate solutions to problems. There are a variety of techniques that can be used to cultivate creative environments.	Students practice deferring judgements and putting ideas on the table. They complete the chart of insights, "How might we..." statements, and potential solutions.
Lesson 51: Ideate	The design and process of selection	Students will use rank choice

	processes influence the outcomes. Choosing a selection process or using multiple selection processes can be employed strategically to build desired outcomes.	voting, open discussion, and voting on superlatives for a variety of categories to explore how different selection processes can yield different results.
Lesson 52: Prototype	Prototypes are supposed to be built quickly and cheaply to test concepts and provide rapid useful feedback that can help with the next iteration of the design.	Students build conceptual prototypes of their project ideas and share them with their peers who offer feedback. Students revise their prototypes to incorporate the feedback.
Lesson 53: Evaluation and Project Proposals	Setting evaluation metrics to analyze project outcomes is an important part of project planning. Project proposals communicate key points including project goals, strategies, assessment plans, and projected budgets.	Students brainstorm and consider a number of metrics they could use to evaluate their projects. Students write a project proposal based on the Healthy Berkeley Grant proposal.
Lesson 54: Plan Project	Eliciting and responding to feedback is an important step in any project.	Students review teacher feedback on their project proposals and revise their plans to make their plans more complete.
Lesson 55: Plan Project	Action planning and assigning tasks to team members are useful strategies for project implementation.	Students map out the key next steps to bring their project to completion.
Lesson 56: Plan Project	Thorough planning and making sure that all members of a group are on the same page before implementing a project helps to ensure that project's success.	Students work in groups to complete their action plans.
Lesson 57: Offering and Asking for Help	Asking for help is part of strong teamwork. Offering and providing help is often easier than asking.	Student work groups discuss if and how they could use support. Students share project updates and ask one another for help.
Lesson 58: Launch Projects	Students have the capacity to design and implement meaningful change in the food system. Planning for implementation and	Students implement their projects according to their plans, collect data, and begin reflection and analysis.

	collecting metrics on the success of that implementation are strategies for making the impact greater.	
Lesson 59: Launch Projects	Students have the capacity to design and implement meaningful change in the food system. Planning for implementation and collecting metrics on the success of that implementation are strategies for making the impact greater.	Students implement their projects according to their plans, collect data, and begin reflection and analysis.

<p>UNIT 6: CAREERS IN PUBLIC HEALTH</p> <p>Goal: Students will be able to describe a number of public and community health careers and identify one or two that they consider as a potential career path. Students will be able to summarize workplace norms and demonstrate professional behavior in a variety of situations.</p> <p>Overview: Students will hear from a number of guest speakers working in various capacities in the field of public health. Students will complete internships outside of class and report on their internships by highlighting key lessons learned through those workplace experiences.</p>		
Lessons	Key Content	Main Activity
Lesson 60: Eating Disorders	Anorexia nervosa and bulimia nervosa are the two most common eating disorders. Women and girls have a much higher incidence of eating disorders than men and boys.	Review a short presentation on eating disorders to learn some key concepts before the expert guest lecture on the subject. Students generate questions to ask Dr. Buckelew.
Lesson 61: Guest Lecture with Dr. Buckelew	Eating disorders are complex diseases that require careful treatment. Students experiencing an eating disorder should seek professional treatment. Disordered eating exists on a spectrum with diagnosable eating disorders at extreme end.	Students observe an Interview style guest lecture with Dr. Buckelew, an expert on eating disorders. Students ask questions following the interview.
Lesson 62: Project Reports	Project reports are an important tool for summarizing work completed and making recommendations for further work.	Students begin writing project reports summarizing their project. Students reflect on the successes and areas of potential improvement.
Lesson 63: Reflect and	Using academic language is an	Students tell the story of

Report	essential skill for presenting in formal settings. Practicing using academic language is the key to developing that skill.	their project to one another in pairs. Students utilize sentence frames to practice telling their story using academic language.
Lesson 64: Planning for the Community Celebration	Hosting an event and feeding a large group requires planning and consideration.	Students will design a menu and program for the evening that highlights what they've learned in the course.
Lesson 65: Internship Report Outs	What did you learn from your internship experience?	Students discuss their internships and compare experiences. Students share lessons learned and values gained.
Lesson 66: Reflecting on the Year	What do you remember from the course this year? What experiences made an impression? What did you learn?	Students brainstorm as a class the experiences and lessons that stuck out to them most from the year. They review the course outline in small groups as a reminder of everything they have covered.
Lesson 67: Mapping the Course	What did we do this year in this course?	Students work in small groups to create posters mapping their experiences and learning in the class.
Lesson 68: Preparing for Community Celebration	How would you like to share your learning and experiences from this year with your communities? What do you need to plan for in order to do this?	Students plan and prepare to host their families and class community for a closing dinner.
Lesson 69: Community Celebration	Gathering community around food is a powerful way to celebrate accomplishments and share stories.	Students host a dinner for their families and class community including guest speakers, volunteers, and administrators.
Lesson 70: Reflection and Course Assessment	Reflection and metacognition are important steps in learning and noticing changes in knowledge and behavior.	Students complete an end of year survey and evaluation that includes reflection on how their attitudes towards food and nutrition have changed.

Lesson 71: Reflection and Next Steps	What are you carrying forward from this course?	Students will complete an individual reflection and group share out on their personal takeaways from the course.
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