

PUBLIC HEALTH CERTIFICATES

The following certificates are available through the Colorado School of Public Health at the **CU Anschutz Medical Campus in Aurora, Colorado**:

Applied Biostatistics

This certificate, offered at the University of Colorado Anschutz Medical Campus, provides graduate training in applied biostatistics for health care professionals and others interested in expanding their analytic knowledge and skills. This 15-credit certificate will provide you with skills in basic data management, biostatistics, and data analysis with applications in a wide range of clinical and public health areas. Upon completion, you'll be ready to meet the increasing demand for biostatistical expertise in the workforce.

Curriculum

| Code | Title | Hours |
|--|---|-----------|
| Required Courses (6 credits) | | |
| BIOS 6601 | Applied Biostatistics I | 3 |
| BIOS 6602 | Applied Biostatistics II | 3 |
| Computing Electives (3 credits from the following courses): | | |
| BIOS 6640 | R for Data Science | 3 |
| BIOS 6642 | Introduction to Python Programming | 3 |
| BIOS 6680 | Data Management Using SAS | 3 |
| BIOS 6681 | Structured Query Language Using SAS PROC SQL | 1 |
| Biostatistics Electives (6 credits from the following courses): | | |
| BIOS 6623 | Advanced Data Analysis | 4 |
| BIOS 6641 | Causal Inference | 3 |
| BIOS 6629 | Applied Survival and Longitudinal Data Analysis | 3 |
| BIOS 6685 | Introduction to Public Health Informatics | 3 |
| EPID 6630 | Epidemiology | 3 |
| Total Hours | | 16 |

Climate and Disaster Resilience

In this program you'll learn how to promote the health of communities threatened by natural hazards, incidents of mass violence, civil conflict, infectious disease outbreaks, and other emergent public health threats. This interdisciplinary certificate focuses on training the leaders of tomorrow to help domestic and international communities prepare for, respond to, and recover from disasters. In addition, you'll get hands-on experience through table-top and field simulation exercises.

| Code | Title | Hours |
|---|--|-------|
| Required Courses | | |
| EHOH 6622 | Intro to Public Health in Disasters | 3 |
| EHOH 6625 | Global Response to Disasters and Climate Crises | 3 |
| EHOH 6626 | Disasters and Climate Crises: Practical Applications | 3 |
| EHOH 6642 | Climate and Disaster Mental Health | 3 |
| Electives: Choose a minimum of 3 credits from the following: | | |
| CBHS 6619 | Public Health in the Global Community | 3 |
| CBHS 6624 | Community Health Assessment | 3 |
| CBHS 6629 | Health and Human Rights | 3 |

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|--------------------|---|-----------|
| EHOH 6620 | Risk Analysis & Decision Making | 3 |
| EHOH 6621 | GIS for Public Health Research/Practice | 3 |
| EHOH 6623 | Geographic Perspective on Global Health | 2 |
| EHOH 6624 | Infectious Diseases, Environmental Contexts | 3 |
| EHOH 6633 | International Travel and Health | 1 |
| EHOH 6635 | Climate Change and Health | 3 |
| EHOH 6638 | Communication Skills for Public Health Impact | 3 |
| EPID 6624 | Public Health Surveillance | 2 |
| EPID 6628 | Global Health and Disasters | 2 |
| EPID 6634 | Applied Global Health Epidemiology | 2 |
| EPID 6635 | Infectious Disease Epidemiology | 2 |
| EPID 6640 | Investigation of Disease Outbreaks | 2 |
| HSMP 6608 | Ethical and Legal Issues in Public Health | 2 |
| HSMP 6615 | Current Global Health Policy Issues | 2 |
| HSMP 6618 | Comparative Health Systems | 2 |
| ANTP 5320 | Culture of Disaster | 3 |
| ANTP 5380 | Food, Hunger and Culture | 3 |
| FSHN 5000 | Food Systems, Nutrition and Food Security | 2 |
| IEOO 6790 | Advanced International Development | 3 |
| Total Hours | | 15 |

ColoradoSPH/CU-SOM Rural Public Health

The ColoradoSPH/CU-SOM Rural Public Health Certificate program focuses on the integration of medical school curriculum with ColoradoSPH curriculum to provide a foundation in public health knowledge and practice in rural communities specifically for medical students.

Curriculum

| Code | Title | Hours |
|--|------------------------------|-------|
| 8 Credit Hours from the ColoradoSPH Curriculum: | | |
| BIOS 6601 | Applied Biostatistics I | 3 |
| EPID 6630 | Epidemiology | 3 |
| PUBH 6600 | Foundations in Public Health | 2 |

7 Credit Hours from the CU-SOM Rural MD Curriculum:

| | |
|--|--|
| Health and Society curriculum in year 1 and 2 | |
| Population and Public Health "area of concentration" in year 2 (Rural Program) | |
| Community Health Assessment Project in year 2 (Rural Program) | |
| Service Learning in year 1 and 2 (Rural Program) | |

TOTAL 15 Credits

Global Public Health

This certificate program, offered at the University of Colorado Anschutz Medical Campus, will help you address the health challenges that have arisen with increasing globalization. As the world becomes more interconnected, governments and non-governmental organizations have changed the ways they tackle health issues like HIV/AIDS, communicable diseases, malnutrition, diabetes, and access to medical care. In this program, you'll learn how to address global health disparities on community and systems levels.

Curriculum

| Code | Title | Hours |
|--|--|-----------|
| Required Course (10 credits) | | |
| CBHS 6619 | Public Health in the Global Community | 3 |
| BIOS 6601 | Applied Biostatistics I | 3 |
| EHOH 6623 | Geographic Perspective on Global Health | 2 |
| EPID 6630 | Epidemiology | 3 |
| Electives (4 credits from the following courses): | | |
| CBHS 6629 | Health and Human Rights | 3 |
| EHOH 6621 | GIS for Public Health Research/Practice | 3 |
| EHOH 6633 | International Travel and Health | 1 |
| EPID 6624 | Public Health Surveillance | 2 |
| EPID 6635 | Infectious Disease Epidemiology | 2 |
| EPID 6640 | Investigation of Disease Outbreaks | 2 |
| EPID 6641 | Epidemiology of Foodborne and Diarrheal Diseases | 2 |
| EPID 6643 | Epidemiology and Prevention of TB/HIV/STDs | 2 |
| HSMP 6602 | Health Equity | 3 |
| HSMP 6615 | Current Global Health Policy Issues | 2 |
| Total Hours | | 15 |

Health Analytics & Data Science

This certificate, offered at the University of Colorado Anschutz Medical Campus, provides graduate training in analytic methods and data science for healthcare professionals and researchers. In this program, you'll learn about analytic methods for large and complex data in areas like 'omics, imaging, electronic health records, and mobile health. When you leave this program, you'll be ready to answer complex clinical questions by using data to display and communicate healthcare trends.

Curriculum

| Code | Title | Hours |
|--|---|-------|
| Required Analytics and Computing Courses (6 credits) | | |
| BIOS 6602 | Applied Biostatistics II | 3 |
| or BIOS 6611 | Biostatistical Methods I | |
| BIOS 6640 | R for Data Science | 3 |
| or BIOS 6642 | Introduction to Python Programming | |
| Analytics Electives (3 credits from the following courses): | | |
| BIOS 6612 | Biostatistical Methods II | 3 |
| BIOS 6623 | Advanced Data Analysis | 4 |
| BIOS 6641 | Causal Inference | 3 |
| BIOS 6645 | Predictive Analytics | 3 |
| BSBT 6111 | Introduction to Biomedical Data Practices | 2 |
| CSCI 5930 | Machine Learning | 3 |
| CSCI 5931 | Deep Learning | 3 |
| CSCI 5580 | Data Science | 3 |
| CSCI 7952 | Big Data Science | 3 |
| MATH 6388 | Statistical and Machine Learning | 3 |
| Computing Electives (3 credits from the following courses): | | |
| BIOS 6680 | Data Management Using SAS | 3 |
| BIOS 6640 | R for Data Science | 3 |
| BIOS 6642 | Introduction to Python Programming | 3 |
| BIOS 6644 | Practical Data Wrangling | 2 |

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|---|---|-----------|
| CPBS 7630 | Computational Methods for Data Challenges in Biomed | 3 |
| CSCI 5559 | Database Systems | 3 |
| CSCI 5951 | Big Data Systems | 3 |
| Optional Specialty Electives (3 credits in the following areas): | | 3 |
| Genomics | | |
| Health Informatics | | |
| Imaging Analysis | | |
| Health Services Research | | |
| Mobile Health | | |
| Total Hours | | 19 |

Population Mental Health & Wellbeing

This certificate, offered at the University of Colorado Anschutz Medical Campus, will help you to understand the challenges of preventing and treating mental health and substance use conditions to promote mental well-being at a population level. You'll be introduced to innovative, population-minded approaches to behavioral health issues and be trained in epidemiology, health policy, social and behavioral health, and more. This certificate is ideal for public health practitioners interested in building their expertise in behavioral health issues and for members of the behavioral health workforce looking for a population-based perspective.

Curriculum

| Code | Title | Hours |
|--|--|-----------|
| Required Courses 12 credits) | | |
| PMHW 6601 | Mental Health | 3 |
| PMHW 6620 | Mental Health Systems and Policy | 3 |
| CBHS 6610 | Social and Behavioral Factors and Health | 3 |
| EPID 6630 | Epidemiology | 3 |
| Electives (3 credits from the following courses): | | |
| Content Focused Electives | | |
| CBHS 6616 | Intimate Partner Violence: Epidemiology | 1 |
| CBHS 6621 | Introduction to Maternal and Child Health | 3 |
| CBHS 6629 | Health and Human Rights | 3 |
| CBHS 6634 | Adolescent Health | 1 |
| EHOH 6622 | Intro to Public Health in Disasters | 3 |
| EPID 6637 | Injury and Violence Epidemiology and Prevention | 2 |
| ANTP 5450 | Global Mental Health - Theory and Method | 4 |
| HDFS 6120 | Adolescent Development | 3 |
| PSCY 6000 | Health Psychology | 3 |
| Methods Focused Electives | | |
| BIOS 6602 | Applied Biostatistics II | 3 |
| BIOS 6648 | Design and Conduct of Clinical Research | 3 |
| CBHS 6612 | Methods in Research and Evaluation | 3 |
| CBHS 6613 | Program Planning and Implementation | 3 |
| HSMP 6602 | Health Equity | 3 |
| HDFS 6080 | Program Design and Implementation | 3 |
| HDFS 6090 | Prevention Program Evaluation | 3 |
| CHBH 6100 | Program Planning and Evaluation | 3 |
| CHBH 6150 | Methods in Public Health Research and Evaluation | 3 |
| Total Hours | | 15 |

Public Health Sciences

Public health is a profession that connects numerous disciplines in pursuit of healthier and safer communities. Whatever field you're currently in, consider enriching your professional background through this certificate, which is designed for students who don't yet have formal education in public health. You can enroll in this certificate at any of our three university locations—CU Anschutz Medical Campus (<https://coloradosph.cuanschutz.edu/education/locations/cu-anschutz-medical-campus/>), Colorado State University (<https://coloradosph.cuanschutz.edu/education/locations/csu/>), or the University of Northern Colorado (<https://coloradosph.cuanschutz.edu/education/locations/unc/>). And if you fall in love with public health while you're studying with us, you can follow up on your certificate with an application to one of our Master of Public Health programs (<https://coloradosph.cuanschutz.edu/education/degrees-and-programs/master-of-public-health/>).

Curriculum

| Code | Title | Hours |
|-------------------------------------|------------------------------|-----------|
| Required Courses (8 credits) | | |
| BIOS 6601 | Applied Biostatistics I | 3 |
| EPID 6630 | Epidemiology | 3 |
| PUBH 6600 | Foundations in Public Health | 2 |
| Electives (7 credits) | | 7 |
| Total Hours | | 15 |

The following certificates are available through the Colorado School of Public Health at **Colorado State University in Fort Collins, Colorado**:

Public Health Sciences

Public health is a profession that connects numerous disciplines in pursuit of healthier and safer communities. Whatever field you're currently in, consider enriching your professional background through this certificate, which is designed for students who don't yet have formal education in public health. You can enroll in this certificate at any of our three university locations—CU Anschutz Medical Campus (<https://coloradosph.cuanschutz.edu/education/locations/cu-anschutz-medical-campus/>), Colorado State University (<https://coloradosph.cuanschutz.edu/education/locations/csu/>), or the University of Northern Colorado (<https://coloradosph.cuanschutz.edu/education/locations/unc/>). And if you fall in love with public health while you're studying with us, you can follow up on your certificate with an application to one of our Master of Public Health programs (<https://coloradosph.cuanschutz.edu/education/degrees-and-programs/master-of-public-health/>).

Curriculum

| Code | Title | Hours |
|-------------------------------------|---------------------------------------|-----------|
| Required Courses (8 credits) | | |
| PBHC 5600 | Quantitative Methods in Public Health | 3 |
| PBHC 5700 | Epidemiology for Public Health | 3 |
| PBHC 5160 | Public Health Foundations | 2 |
| Electives (7 credits) | | 7 |
| Total Hours | | 15 |

The following certificates are available through the Colorado School of Public Health at the **University of Northern Colorado in Greeley, Colorado**:

Public Health Sciences

Public health is a profession that connects numerous disciplines in pursuit of healthier and safer communities. Whatever field you're currently in, consider enriching your professional background through this certificate, which is designed for students who don't yet have formal education in public health. You can enroll in this certificate at any of our three university locations - CU Anschutz Medical Campus, Colorado State University, or the University of Northern Colorado. And if you fall in love with public health while you're studying with us, you can follow up on your certificate with an application to one of our Master of Public Health programs.

Curriculum

| Code | Title | Hours |
|-------------------------------------|---|-----------|
| Required Courses (8 credits) | | |
| CHBH 6120 | Statistical Applications in Public Health | 3 |
| CHBH 6200 | UNC Epidemiology | 3 |
| CHBH 5200 | UNC Foundations in Public Health | 2 |
| Electives (7 credits) | | 7 |
| Total Hours | | 15 |

Rural Public Health

This certificate, offered primarily at the University of Northern Colorado with many electives at Colorado State University, is designed to help meet the need for talented public health professionals in rural communities. In this program, you'll learn about health disparities that affect rural populations, gain an understanding of effective community engagement strategies, and learn how to access and address community health needs.

Curriculum

| Code | Title | Hours |
|---|---|----------|
| CHBH 5050 | Health Communications and the Media | 3 |
| CHBH 5200 | UNC Foundations in Public Health | 2 |
| CHBH 6200 | UNC Epidemiology | 3 |
| CHBH 5680 | Rural Community Health Issues | 3 |
| Electives (4 credits from the following courses) | | 4 |
| CBHS 6614 | Childhood Obesity | 1 |
| CBHS 6616 | Intimate Partner Violence: Epidemiology | 1 |
| CBHS 6617 | Nutrition and Public Health | 1 |
| CBHS 6624 | Community Health Assessment | 3 |
| CBHS 6627 | Maternal Nutrition | 1 |
| CBHS 6631 | Introduction to Sexual and Reproductive Health | 1 |
| CBHS 6634 | Adolescent Health | 1 |
| CBHS 6635 | Child Nutrition | 1 |
| CBHS 6636 | Early Childhood Hlth, ACEs, Toxic Stress, Hlth Equity | 1 |
| CBHS 6648 | Ethical Considerations in AIAN Health | 1 |
| CHBH 6120 | Statistical Applications in Public Health | 3 |
| CHBH 5250 | Contemporary Issues in School Health | 3 |
| CHBH 5090 | Behavior Change Theories | 3 |
| CHBH 5300 | Strategies for Community Health Promotion | 3 |
| CHBH 5350 | Effective Community Health Engagement | 3 |
| CHBH 5500 | Environmental Health | 3 |

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| CHBH 6350 | Policy, Advocacy, Leadership & Management in Community Health | 3 |
| AGRI 5460 | Principles of Cooperative Extension | 3 |
| AGRI 5470 | Delivery of Co-operative Extension Programs | 4 |
| FSHN 6200 | Community Nutrition Plan and Evaluation | 3 |
| FTEC 5740 | Current Issues in Food Safety | 2 |
| HDFS 6100 | Risk and Resilience | 3 |
| PBHC 5400 | One Health in Public Health | 3 |
| PBHC 6921 | Public Health Seminar - EPI | 2 |
| Total Hours | | 15 |

The following certificates are available through the Colorado School of Public Health via **Online** instruction:

American Indian & Alaska Native Health

In this online certificate program you'll learn how to implement, evaluate and research interventions to improve the health and well-being of American Indian and Alaska Native communities. While this population experiences greater poverty rates, discrimination in access to care, and rates of chronic illness compared to other Americans, this certificate will afford students the opportunity to learn about the resilience and strength of American Indians and Alaska Natives. In this program, you will learn how to harness the lessons learned from American Indian and Alaska Native peoples to positively shape public health interventions, programs, and policy for the benefit of all.

| Code | Title | Hours |
|---|--|-------|
| Required Courses: | | |
| CBHS 6647 | Foundations of American Indian Alaska Native Health (Required Courses:) | 3 |
| CBHS 6644 | Social Determinants of AIAN Health | 3 |
| CBHS 6648 | Ethical Considerations in AIAN Health | 1 |
| CBHS 6646 | Community Participatory Research & Review with American Indians/Alaska Natives | 2 |
| Elective Courses: Choose a minimum of 6 credits from the following approved online elective credits: | | |
| BIOS 6601 | Applied Biostatistics I | 3 |
| BIOS 6685 | Introduction to Public Health Informatics | 3 |
| CBHS 6610 | Social and Behavioral Factors and Health | 3 |
| CBHS 6612 | Methods in Research and Evaluation | 3 |
| CBHS 6614 | Childhood Obesity | 1 |
| CBHS 6616 | Intimate Partner Violence: Epidemiology | 1 |
| CBHS 6617 | Nutrition and Public Health | 1 |
| CBHS 6619 | Public Health in the Global Community | 3 |
| CBHS 6620 | Survey Research | 3 |
| CBHS 6627 | Maternal Nutrition | 1 |
| CBHS 6628 | Tech-based health Promotion | 3 |
| CBHS 6631 | Introduction to Sexual and Reproductive Health | 1 |
| CBHS 6634 | Adolescent Health | 1 |
| CBHS 6635 | Child Nutrition | 1 |
| CBHS 6636 | Early Childhood Hlth, ACEs, Toxic Stress, Hlth Equity | 1 |
| EHOH 6614 | Occupational and Environmental Health | 3 |
| EHOH 6622 | Intro to Public Health in Disasters | 3 |
| EHOH 6623 | Geographic Perspective on Global Health | 2 |

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|--------------------|--|-----------|
| EHOH 6634 | Spec Professions Protecting/Promoting Worker Health | 1 |
| EPID 6630 | Epidemiology | 3 |
| EPID 6640 | Investigation of Disease Outbreaks | 2 |
| HSMP 6601 | Introduction to HSMP | 3 |
| HSMP 6634 | Management, Budgeting and Public Health Administration | 3 |
| PUBH 6600 | Foundations in Public Health | 2 |
| CHBH 5250 | Contemporary Issues in School Health | 3 |
| Total Hours | | 15 |

Maternal & Child Health

In this online certificate program, you'll learn about evidence-based approaches to improve the health, safety, and well-being of women, children, and families. This certificate provides the options that you need to customize your learning with both high-level views of maternal and child health (MCH) and deep dives into specific topics like MCH nutrition issues or MCH epidemiologic methods.

Curriculum

| Code | Title | Hours |
|---|--|-------|
| Required Courses (5 credits) | | |
| PUBH 6600 | Foundations in Public Health | 2 |
| CBHS 6621 | Introduction to Maternal and Child Health | 3 |
| MCH Electives (10 credits from the following courses): | | |
| BIOS 6601 | Applied Biostatistics I | 3 |
| CBHS 6612 | Methods in Research and Evaluation | 3 |
| CBHS 6613 | Program Planning and Implementation | 3 |
| CBHS 6614 | Childhood Obesity | 1 |
| CBHS 6616 | Intimate Partner Violence: Epidemiology | 1 |
| CBHS 6617 | Nutrition and Public Health | 1 |
| CBHS 6618 | CURRENT RESEARCH AM INDIAN ALASKA NAT CHILD HEALTH DEV | 1 |
| CBHS 6619 | Public Health in the Global Community | 3 |
| CBHS 6625 | Current Regional Issues in Maternal & Child Health | 1 |
| CBHS 6627 | Maternal Nutrition | 1 |
| CBHS 6628 | Tech-based health Promotion | 3 |
| CBHS 6629 | Health and Human Rights | 3 |
| CBHS 6631 | Introduction to Sexual and Reproductive Health | 1 |
| CBHS 6634 | Adolescent Health | 1 |
| CBHS 6635 | Child Nutrition | 1 |
| CBHS 6636 | Early Childhood Hlth, ACEs, Toxic Stress, Hlth Equity | 1 |
| CBHS 6641 | Developmental Screening, Strategies and Referral | 1 |
| CBHS 6643 | Women's Health: A Public Health Perspective | 2 |
| EPID 6630 | Epidemiology | 3 |
| EPID 6637 | Injury and Violence Epidemiology and Prevention | 2 |
| EPID 6641 | Epidemiology of Foodborne and Diarrheal Diseases | 2 |
| EPID 6642 | Genetics in Public Health | 2 |
| EPID 6644 | Maternal Child Health Epidemiology | 3 |
| HSMP 6614 | MCH Program Management & Policy Analysis | 3 |
| HDFS 6100 | Risk and Resilience | 3 |
| HDFS 6120 | Adolescent Development | 3 |
| PSCY 5150 | Women's Health | 3 |

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|--------------------|---|-----------|
| CHBH 5250 | Contemporary Issues in School Health | 3 |
| CHBH 5750 | Public Health Issues in Reproductive Health | 3 |
| CHBH 6100 | Program Planning and Evaluation | 3 |
| CHBH 6150 | Methods in Public Health Research and Evaluation | 3 |
| CLSC 6663 | Intervention for Individuals with Developmental Disabilities | 3 |
| CLSC 6668 | Screening/Assessment for Children/Youth with Autism/Neurodevelopmental Disabilities | 3 |
| Total Hours | | 15 |

Total Worker Health[®]

This online program is designed for public health graduate students and current working professionals who are seeking career advancement. In this program, you'll learn how to develop and manage Total Worker Health (TWH) initiatives—workplace safety, wellness, and health promotion programs. You'll learn how to assess organizational culture, plan and evaluate health and safety programs, and become a better leader. In addition, you'll take classes taught by expert faculty from the Center for Health, Work & Environment (<https://coloradosph.cuanschutz.edu/research-and-practice/centers-programs/chwe/home/>)—one of six Centers of Excellence for TWH. With this certificate, you'll become part of a community of business leaders and academics committed to workplace health and safety.

According to the National Institute for Occupational Safety and Health (NIOSH) (<https://www.cdc.gov/niosh/twh/default.html>), TWH includes policies, programs, and practices that integrate protection from work-related safety and health hazards with the promotion of injury and illness prevention efforts to advance worker well-being.

Curriculum

| Code | Title | Hours |
|--------------------------------------|---|-----------|
| Required Courses (15 credits) | | |
| EHOH 6628 | Health Protection/Promotion in the Workplace. | 3 |
| EHOH 6634 | Spec Professions Protecting/Promoting Worker Health | 1 |
| EHOH 6639 | Occupational Health Psychology | 3 |
| EHOH 6614 | Occupational and Environmental Health | 3 |
| EHOH 6629 | Introduction to Occupational Safety and Ergonomics | 2 |
| EHOH 6638 | Communication Skills for Public Health Impact | 3 |
| Total Hours | | 15 |