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Competencies for all MPH Graduates of the ColoradoSPH		
Identifier	CEPH Foundational Competencies	MPH Course Where Competency is Addressed/Assessed
Evidence-based Approaches to Public Health		
MPH 1	Apply epidemiological methods to settings and situations in public health practice	EPID 6630
MPH 2	Select quantitative and qualitative data collection methods appropriate for a given public health context	EPID 6630 CBHS 6610
MPH 3	Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	BIOS 6601 CBHS 6610
MPH 4	Interpret results of data analysis for public health research, policy or practice	BIOS 6610 EPID 6630
Public Health and Health Care Systems		
MPH 5	Compare the organization, structure, and function of health care, public health and regulatory systems across national and international settings	HSMP 6601
MPH 6	Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and systemic levels	CBHS 6610
Planning and Management to Promote Health		
MPH 7	Assess population needs, assets and capacities that affect communities' health	CBHS 6610
MPH 8	Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs	CBHS 6610
MPH 9	Design a population-based policy, program, project or intervention	CBHS 6610
MPH 10	Explain basic principles and tools of budget and resource management	HSMP 6601
MPH 11	Select methods to evaluate public health programs	CBHS 6610
Policy in Public Health		
MPH 12	Discuss the policy-making process, including the roles of ethics and evidence	HSMP 6601
MPH 13	Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	CBHS 6610
MPH 14	Advocate for political, social or economic policies and programs that will improve health in diverse populations	HSMP 6601
MPH 15	Evaluate policies for their impact on public health and health equity	HSMP 6601
Leadership		

MPH 16	Apply leadership and/or management principles to address a relevant issue	HSMP 6601
MPH 17	Apply negotiation and mediation skills to address organizational or community challenges	PUBH 6600
Communication		
MPH 18	Select communication strategies for different audiences and sectors	EHOH 6614
MPH 19	Communicate audience-appropriate (i.e. non-academic, non-peer audience) public health content, both in writing and through oral presentation	EHOH 6614
MPH 20	Describe the importance of cultural competence in communicating public health content	PUBH 6600
Interprofessional Practice		
MPH 21	Integrate perspectives from other sectors and/or professions to promote and advance population health	PUBH 6600 PUBH 6606
Systems Thinking		
MPH 22	Apply a systems thinking tool to visually represent a public health issue in a format other than standard narrative	EHOH 6614

Identifier	MPH Animals People and Environment Concentration (APE) Competencies	Course Where Competency is Addressed/Assessed
MPH-APE 1	Assess the public health threat of emerging issues to animal and human populations and identify intervention strategies.	PBHC 5400
MPH-APE 2	Analyze how social, political and cultural differences can impact public perceptions about how human, environment and animal interactions affect public health.	PBHC 5400
MPH-APE 3	Analyze ways in which agricultural and human incursion positively and adversely impact environmental and ecological health.	PBHC 5400
MPH-APE 4	Develop strategies for optimal communication and collaboration between human, animal, and health professionals	PBHC 5400
MPH-APE 5	Incorporate the principles of safe and secure food systems into public health problem solving.	FTEC 5740
MPH-APE 6	Develop an individual professional written, visual, or audio social media post online.	PBHC 6923

Identifier	MPH Epidemiology Concentration (EPID) Competencies - CSU	Course Where Competency is Addressed/Assessed
MPH-EPID 1	Compare and prioritize public health issues within and across populations, using epidemiologic methods including measures of prevalence, incidence, morbidity, mortality, demographic characteristics and risk factors.	ERHS 6400
MPH-EPID 2	Critically review and evaluate public health and other scientific literature to identify gaps in evidence, assess the strengths and weaknesses, and identify threats to validity of peer-reviewed studies as relevant to the practice of public health.	PBHC 5750
MPH-EPID 3	Formulate an answerable research question, specific aims, and hypotheses to advance knowledge for a public health issue.	PBHC 5750
MPH-EPID 4	Use computer software for data entry, database management and summarizing, analyzing and displaying data.	PBHC 5340
MPH-EPID 5	Apply and interpret the concepts of effect modification, confounding, and bias in research design and analysis approaches.	PBHC 6600

Identifier	MPH Global Health and Health Disparities Concentration (GHHD) Competencies	Course Where Competency is Addressed/Assessed
MPH-GHHD 1	Analyze major causes of morbidity and mortality around the world, and how the risk of disease varies with region.	PBHC 6922-001
MPH-GHHD 2	Examine the roles and relationships of the entities (such as NGOs, national governmental agencies, and international organizations) influencing global health and health equity.	PBHC 6922-001
MPH-GHHD 3	Analyze strategies to engage marginalized and vulnerable populations in making decisions that affect their health and well-being.	PBHC 6922-002
MPH-GHHD 4	Assess major public health efforts to reduce health disparities in locally or globally.	PBHC 6922-001
MPH-GHHD 5	Describe social justice and human rights principles in addressing public health problems globally.	PBHC 6922-002
MPH-GHHD 6	Critique a current health intervention in global health applying concepts of decolonization and propose recommendations for future global health interventions.	PBHC 6922-002
MPH-GHHD 7	Design an evaluation plan for a population-based policy, program or project.	HESC 6500

Identifier	MPH Health Communication Concentration (HCOM) Competencies	Course Where Competency is Addressed/Assessed
MPH-HCOM 1	Analyze theory and strategy-based communication principles across different settings for public health practice.	SPCM 5380 SPCM 6390
MPH-HCOM 2	Create a positioning strategy for a communication-based public health intervention applying best practices of message production and delivery for a target audience.	JTCM 6140
MPH-HCOM 3	Identify and analyze fundamental properties of the intended audience for a communication-based intervention, including demographic, psychological, sociological and cultural elements at all levels from interpersonal to mass.	JTCM 6140
MPH-HCOM 4	Assess the critical relationship between formative and evaluative research in the ongoing delivery of a communication-based intervention.	JTCM 6140
MPH-HCOM 5	Develop a communication plan to reach relevant professional groups, the public, or policy-makers.	JTCM 6140
MPH-HCOM 6	Create a website to communicate about a health condition, policy, program, or practice.	JTCM 6300

Identifier	MPH Physical Activity and Healthy Lifestyles Concentration (PAHL) Competencies	Course Where Competency is Addressed/Assessed
MPH-PAHL 1	Use public health data to prioritize community-based interventions aimed at promoting physical activity or other healthy lifestyle behaviors.	HESC 6500
MPH-PAHL 2	Utilize a field-specific assessment tool to measure physical activity and healthy lifestyle behaviors, as well as their supports and barriers, for population health and wellness.	PBHC 6440
MPH-PAHL 3	Apply evidence-based physical activity promotion approaches to the design or evaluation of community health promotion programs.	PBHC 6440
MPH-PAHL 4	Assess community built environment infrastructure for accessibility to physical activity and healthy lifestyle resources.	PBHC 6440
MPH-PAHL 5	Describe the effects of physical activity on primary, secondary and tertiary prevention of various chronic diseases in populations.	PBHC 6440
MPH-PAHL 6	Propose strategies for incorporating diverse community values, beliefs, and cultures in physical activity or healthy lifestyle promotion programs.	PBHC 6440
MPH-PAHL 7	Design an evaluation plan for a population-based policy, program or project.	HESC 6500
MPH-PAHL 8	Develop an individual professional written, visual, or audio social media post online.	PBHC 6923

Identifier	MPH Public Health Nutrition Concentration (PHNU) Competencies	Course Where Competency is Addressed/Assessed
MPH-PHNU 1	Critically review and evaluate public health nutrition literature to identify strengths and weaknesses of individual studies and assess for overall strength of evidence.	FSHN 6400
MPH-PHNU 2	Explain the effect different dietary patterns have on the primary, secondary, and tertiary prevention of various chronic diseases such as obesity, diabetes, coronary heart disease, cancer and others.	FSHN 5300
MPH-PHNU 3	Assess dietary intake using nutrition assessment tools for population-level analysis.	FSHN 6400
MPH-PHNU 4	Apply a program design framework, such as a logic model, to a public health nutrition intervention.	FSHN 5250
MPH-PHNU 5	Select and apply appropriate theories and evidence-based strategies for the development of nutrition promotion, disease prevention, or disease management.	FSHN 5250
MPH-PHNU 6	Develop an evidence-based evaluation strategy for a public health nutrition program.	FSHN 6200

Identifier	MPH Applied Biostatistics Concentration (BIOS) Competencies	Course Where Competency is Addressed/Assessed
MPH-BIOS 1	Translate a study's scientific question or aims into testable statistical hypotheses and propose and apply appropriate statistical methods to test those hypotheses.	BIOS 6602
MPH-BIOS 2	Fit and interpret models for continuous outcome data (normal linear model), categorical outcome data (logistic regression), and time-to-event data (Cox regression).	BIOS 6602
MPH-BIOS 3	Apply concepts of multiple regression, including confounding, statistical interactions, model selection, model fit, and regression diagnostics, in fitting and evaluating statistical models.	BIOS 6602
MPH-BIOS 4	Apply scientific and statistical principles of sampling, bias, confounding, and sample size estimation to design or interpret basic public health or biomedical studies.	BIOS 6623
MPH-BIOS 5	Use computer software for data management (data entry, access, and data manipulations), as well as for summarizing, analyzing and displaying research results	BIOS 6680
MPH-BIOS 6	Use the principles of hypothesis testing and estimation of population parameters to draw inferences from quantitative data and communicate orally and in writing those inferences and their statistical and scientific interpretation to non-statistical scientists.	BIOS 6623

Identifier	MPH Community and Behavioral Health Concentration (CBHS) Competencies	Course Where Competency is Addressed/Assessed
MPH-CBHS 1	Critically analyze, develop, and apply theories, models, and frameworks to inform public health practice.	CBHS 6611
MPH-CBHS 2	Apply systematic approaches/methods and collaborate with communities and other interested parties – in an effective, equitable, and ethical manner – to develop and implement an assessment of the health-related needs and assets of communities and populations, taking into account individual, interpersonal, community and societal factors.	CBHS 6624
MPH-CBHS 3	Use scientific evidence and community experience to identify health inequities and inform the design or adaptation of culturally relevant programs to promote health equity.	CBHS 6613
MPH-CBHS 4	Use systematic approaches to design or adapt, implement, and evaluate health promotion or disease prevention programs.	CBHS 6613
MPH-CBHS 5	Develop a comprehensive evaluation plan to assess the implementation and effectiveness of a public health program or policy.	CBHS 6612
MPH-CBHS 6	Conduct, interpret, and report the results of quantitative or qualitative analyses to understand factors associated with health or health behavior.	CBHS 6622 CBHS 6637

Identifier	MPH Environmental and Occupational Health Concentration (EHOH) Competencies	Course Where Competency is Addressed/Assessed
MPH-EHOH 1	Apply skills in exposure assessment to evaluate the potential for health effects from environmental or occupational chemical, physical, biological, or psychosocial stressors.	EHOH 6619
MPH-EHOH 2	Recognize sources and exposure pathways for environmental or occupational chemical, physical, biological, or psychosocial stressors.	EHOH 6619
MPH-EHOH 3	Apply analytical skills in the evaluation of environmental or occupational health problems.	EHOH 6618
MPH-EHOH 4	Explain the principles of resilience and apply these principles in the development of solutions to environmental, climate-related, or occupational health problems.	EHOH 6618
MPH-EHOH 5	Apply theoretical frameworks or empirical evidence to recommend interventions to improve the health, safety, or well-being of workers.	EHOH 6618
MPH-EHOH 6	Evaluate toxicological effects associated with exposures and stressors, considering chemical properties and biological mechanisms.	EHOH 6616
MPH-EHOH 7	Recommend strategies to promote environmental justice.	EHOH 6618

Identifier	MPH Epidemiology Concentration (EPID) Competencies	Course Where Competency is Addressed/Assessed
MPH-EPID 1	Compare and prioritize public health issues within and across populations, using epidemiologic methods including measures of prevalence, incidence, morbidity, mortality, demographic characteristics and risk factors.	EPID 6631
MPH-EPID 2	Critically review and evaluate public health and other scientific literature to identify gaps in evidence, assess the strengths and weaknesses, and identify threats to validity of peer-reviewed studies as relevant to the practice of public health.	EPID 6626
MPH-EPID 3	Formulate an answerable research question, specific aims and hypotheses to advance knowledge for a public health issue.	EPID 6626
MPH-EPID 4	Use computer software for data entry, database management, and summarizing, analyzing and displaying data.	BIOS 6680
MPH-EPID 5	Apply and interpret the concepts of effect modification, confounding, and bias in research design and analysis approaches.	BIOS 6602

Identifier	MPH Health Systems Management and Policy Concentration (HSMP) Competencies	Course Where Competency is Addressed/Assessed
MPH-HSMP 1	Evaluate strategies for organizing, financing and delivering health services.	HSMP 6604
MPH-HSMP 2	Develop strategies for improving the performance of public health and healthcare organizations.	HSMP 6606 HSMP 6633
MPH-HSMP 3	Apply principles of budgeting and financial decision analysis in public health and healthcare settings.	HSMP 6610
MPH-HSMP 4	Analyze the implementation of laws, regulations, and policies to identify opportunities for improving health and health equity.	HSMP 6605
MPH-HSMP 5	Apply policy analysis frameworks to make evidence-informed policy recommendations for improving health and health equity.	HSMP 6616
MPH-HSMP 6	Develop policy recommendations for dismantling structural and systemic inequities in health using health equity frameworks and ethical principles.	HSMP 6602

Identifier	MPH Global Health Plus Concentration (GLH) Competencies	Course Where Competency is Addressed/Assessed
MPH-GLH 1	Provide a comprehensive analysis of a significant public health program or policy success that has been achieved in a low- or middle-income country.	CBHS 6619
MPH-GLH 2	Recommend professional, ethical, and cultural responses to public health issues that may be encountered in a global health setting.	EPID 6634
MPH-GLH 3	Apply concepts of global burden of disease, especially disability-adjusted life years, across national and international settings to address health challenges.	CBHS 6619
MPH-GLH 4	Compare a public health issue in different regions around the world and how the physical or human geography in these regions impacts the public health issue.	EHOH 6623
MPH-GLH 5	Analyze how the health care or public health system in an international setting addresses a public health issue.	HSMP 6618

Identifier	MPH Leadership and Public Health Practice Concentration (LPHP) Competencies	Course Where Competency is Addressed/Assessed
MPH-LPHP 1	Use a health equity lens to develop an implementation plan for public health laws, regulations, or policies.	HSMP 6640
MPH-LPHP 2	Create a personal development plan, including an achievable mission, set of core values and vision, and use these to guide personal and professional action.	CBHS 6640
MPH-LPHP 3	Apply a systems thinking framework to evaluate issues internal and external to an organization that may impact the delivery of essential public health services and suggest potential solutions.	CBHS 6640
MPH-LPHP 4	Apply appropriate leadership frameworks and styles to organizational team-building and decision-making.	CBHS 6640
MPH-LPHP 5	Develop a comprehensive evaluation plan to assess the implementation and effectiveness of a public health program or policy.	CBHS 6612
MPH-LPHP 6	Apply principles of strategic planning, management and budgeting to organizational or community settings.	HSMP 6634

Identifier	MPH Maternal and Child Health Concentration (MCH) Competencies	Course Where Competency is Addressed/Assessed
MPH-MCH 1	Evaluate how health disparities, inequities and racism impact MCH programs, services and practices.	CBHS 6621
MPH-MCH 2	Select and interpret existing data sources to compare and contrast the health of MCH populations across different regions and countries.	EPID 6644
MPH-MCH 3	Develop a comprehensive evaluation plan to assess the implementation and effectiveness of a public health program or policy.	CBHS 6612
MPH-MCH 4	Interpret state or national performance measures to evaluate public health programs or services and provide recommendations.	HSMP 6614
MPH-MCH 5	Critically analyze the efficacy of current evidence-based methods, programs or policies in the development and delivery of MCH services or interventions using available academic, program evaluation or legislative reports.	CBHS 6621
MPH-MCH 6	Apply lifecourse and other relevant theories to maternal and child health policy development.	HSMP 6614

Identifier	MPH Population Mental Health and Wellbeing Concentration (PMHW) Competencies	Course Where Competency is Addressed/Assessed
MPH-PMHW 1	Demonstrate thorough understanding of prevalence rates, risk and protective factors, and the vulnerabilities and strengths in communities to mental health and substance disorders.	PMHW 6601
MPH- PMHW 2	Critically evaluate the theoretical constructs of well-being in the promotion of mental health and prevention of substance use.	PMHW 6621
MPH- PMHW 3	Develop a policy brief to reflect the impact of behavioral health policies related to integrated health care systems.	PMHW 6620
MPH- PMHW 4	Develop a comprehensive evaluation plan to assess the implementation and effectiveness of a public health program or policy.	CBHS 6612
MPH- PMHW 5	Analyze the individual, social, cultural, and structural factors that uniquely relate to effective prevention and treatment strategies of major mental health and substance use disorders.	PMHW 6601

Identifier	MPH Community Health Education Concentration (CHE) Competencies	Course Where Competency is Addressed/Assessed
MPH-CHE 1	Examine the accessibility of community health resources and services from a health equity lens and analyze how access impacts individual and community health.	CHBH 5350
MPH-CHE 2	Explain how cultural beliefs and practices both positively and negatively influence participation in community health initiatives.	CHBH 6100 CHBH 5350
MPH-CHE 3	Synthesize knowledge of community health education and public health to illustrate best practices for effective community engagement.	CHBH 5350
MPH-CHE 4	Apply public health theoretical concepts or models to create a community health initiative that includes a logic model for aligning the mission, goals and measurable process, outcome and impact objectives of the initiative.	CHBH 6100
MPH-CHE 5	Apply cultural theories and frameworks when working with community groups/stakeholders on a community-engaged initiative.	CHBH 5350 CHBH 6150