Road Safety Professional Classification System
Level 2
Behavioral Specialty

Domain 1: *Fundamentals*

Task 1: Define the safety and risk of a unit (e.g., road section, an intersection, driver demographics, a truck fleet, a car model year) and explain how they are different.

Task 2: Describe crash injury severity scales and levels.

Task 3: Describe what makes crashes reportable.

Task 4: Discuss the strengths and limitations of crash reporting (e.g., how reportability criteria affect the count of crashes, proportion of reportable crashes that are reported).

Task 5: Describe crash frequency and crash rates, the appropriate use of both, and the limitations of both.

Task 6: Describe behavioral adaptation and how it impacts the effectiveness of safety countermeasures.

Task 7: Describe how crash costs are estimated and the strengths and weaknesses of these estimates.

Task 8: Describe the elements of cost-effectiveness and cost-benefit analysis.

Domain 2: *Road Safety Program Management*

Task 1: Implement a road safety management process.

Task 2: Apply the Haddon Matrix.

Task 3: Describe how to use a proactive approach versus a reactive approach to problem identification.

Task 4: Compare motor vehicle crashes to other major causes of death in terms of multiple dimensions (e.g., age, populations, urbanicity, preventability).

Task 5: Identify and diagnose crash-contributing factors on a state, provincial, or local level using qualitative and quantitative safety data analysis.

Task 6: Select and apply promising and evidence-based countermeasures.

Task 7: Identify traditional and non-traditional stakeholders based on the issues and the selected countermeasures.

Task 8: Describe the methods for program or project evaluation post implementation.

Task 9: Describe the difference between a strategic safety plan and a project plan

Task 10: Identify components of continuous monitoring and oversight of behavioral safety projects.

Task 11: Identify programmatic and financial criteria to evaluate behavioral safety programs.

Task 12: Explain the differences between an impact, outcome, and process evaluation.

Task 13: Explain similarities and differences in safety education programs versus social marketing campaigns.

Task 14: Describe how human limitations in information processing lead to a reliance on expectations in driving and contribute to different crash types.

Domain 3: *Safety Data and Analysis*

Task 1: Describe relevant types of transportation safety data, their respective sources, and significance.

Task 2: Describe the need for and provide examples of integrating data from different sources for improved decision-making.

Task 3: Analyze crash datasets to determine relationships between crash patterns and other characteristics (e.g., roadway features, users, behaviors) to establish strategic emphasis areas and to identify the key characteristics of different crash types (e.g., rear end, sideswipe).

Task 4: Measure the public's knowledge, attitudes, and behaviors related to safety issues and implemented countermeasures.

Task 5: Measure the effects of communication and outreach efforts related to behavioral safety.

Task 6: Describe crash data processing, from initial reporting to final coding.

Task 7: Describe the constraints and challenges of using safety data related to completeness, timeliness, accuracy, uniformity, accessibility, and integration.

Task 8: Describe crash trend analysis.

Task 9: Identify alternative sources of data (e.g., survey, media tracking, injury surveillance, citation) and the methods used to analyze to each.

Task 10: Evaluate a particular intervention for improving safety using quantitative and qualitative data.

Task 11: Describe the impacts of data gaps on decision making, countermeasure selection, and methods to overcome them.

Domain 4: *Target Crashes and Countermeasures*

Task 1: Identify types and characteristics of evidence-based countermeasures (e.g., engineering, behavioral, policy initiatives, enforcement, public health, EMS, education, public outreach) and how to select appropriate countermeasures.

Task 2: Explain rationale for selection of specific types of countermeasures.

Task 3: Explain what other factors may impact countermeasure effectiveness and outcomes.

Domain 5: *Human Health and Transportation Modes*

Task 1: Describe the physics (physical forces and dynamics) involved in a crash and identify the impacts these forces have on different road users.

Task 2: Explain the difference between crash avoidance and crashworthiness and give examples of each.

Task 3: Describe the effects of design on operating speed.

Task 4: Describe the effects of operating speed on road user interactions (drivers, bicyclists, motorcyclists and pedestrians, and other vulnerable populations).

Task 5: Identify different measures that can be used to decrease the forces in a crash or increase human survivability in crashes, with particular attention to older road users.

Task 6: Identify health risks other than crashes attributable to transportation (e.g., air quality, isolation, physical activity limitations) and prescribe countermeasures to mitigate these negative effects. Explain how this can be used to engage other stakeholders.

Task 7: Identify the most common factors that contribute to crashes (e.g., roadway design and operations, vehicle design, human behavior) between motor vehicles and vulnerable users (e.g. pedestrians, bicyclists, motorcyclists).

Task 8: List the most common high-risk behaviors associated with motor vehicle crashes and identify relevant countermeasures.

Task 9: Describe different types of impairments and how each affects the performance of the driving tasks.

Task 10: Describe how to evaluate drivers with diminished or limited cognitive and/or physical capacities and determine appropriate accommodations to enable continued safe mobility.

Domain 6: Public Health and Transportation Safety

Task 1: Explain the process of developing a transportation-related public health campaign and identify key components that must be in place for success.

Task 2: Identify conditions under which multiple countermeasures should be used in tandem to change public behavior surrounding a highway safety issue.

Task 3: Assess the efficacy of a public outreach or education campaign.

Task 4: Explain the importance of emergency response and identify steps that can improve the probability of occupant survival.

Task 5: Explain the types and role of health data in transportation safety analysis and identify key findings that can be gathered from these types of data.

Task 6: Identify different education and outreach methods that can be applied to improve safety for different user populations.

Task 7: Explain the limitations of education and public outreach efforts to influence behavior change and identify methods to address those limitations.

Task 8: Describe the importance of crash severity in project prioritization and identify critical crash types to address with public health campaigns.

Task 9: Describe the role of injury prevention professionals in preventing and reducing traffic crashes, injuries, and fatalities at the local and statewide/provincial levels.

Task 10: Discuss the use of mortality and morbidity data in developing an injury prevention plan.

Task 11: Discuss the use of injury surveillance data (e.g., trauma registry data, EMS data, hospital discharge data) in the development of countermeasures for preventing traffic crash injuries.

Task 12: Describe how public health campaigns effect changes in safety culture.

Domain 7: Addressing Safety Problems with Public Policy (Law, Regulation, Policies, and Standards)

Task 1: Discuss major transportation safety public policy (e.g., 0.08, 55 mph speed limit, Graduated Driver Licensing, seat belts) that have been undertaken in the United States and/or Canada.

Task 2: Identify public policy measures that may be used as countermeasures to address target crashes.

Task 3: Explain how public policy affects the behavior and safety of road users.

Task 4: Describe the process by which an identified safety problem and research findings lead to formulation of public policy.

Task 5: Describe the different costs of policy countermeasures (e.g., monetary, societal) from the engineering, policy, public health, behavioral, human factors, and education disciplines.

Task 6: Describe how zero-based initiatives (e.g., toward zero deaths, vision zero) influence policy efforts to improve transportation safety in the United States and Canada.

Task 7: Describe how funding policy impacts transportation safety project implementation.

Task 8: Describe the relationship between policy, education, and behavior change.

Task 9: Describe methods by which data, research, and other types of information can be used to advance safety policy initiatives.

Domain 8: Strategic Safety Planning

Task 1: Explain the roles of the different stakeholders in a strategic safety plan.

Task 2: Define the essential components of a strategic safety plan.

Task 3: Describe how various transportation plans can be aligned or integrated with strategic safety plans (e.g., regional transit plans and statewide/provincial safety implementation plans).

Task 4: Describe a multidisciplinary, multi-agency approach to the development, implementation, and evaluation of a strategic safety plan.

Domain 9: Safe System Approach

Task 1: Define the guiding principles of a Safe System approach.

Task 2: Identify and explain the role of system owners, users and other stakeholders in creating a Safe System approach.

Task 3: Discuss safe impact speeds in the context of a Safe System (e.g., mixed pedestrian and vehicle traffic, vehicle-only traffic, fixed objects)

Task 4: Identify key elements that are needed for the implementation of a Safe System approach.

Task 5: Explain how interactions between system owners, users, and other stakeholders operate in a Safe System approach as compared to traditional safety efforts.