



End of Course
(EOC) Bank
Blueprints

Firefighting and Emergency Medical Services (EMS)

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About Test Blueprints

Test blueprints are created to provide guidance to Subject Matter Experts (SMEs) during the item writing phase of test development. In addition, we believe that they can assist those instructors who did not participate in item writing (and administrators) to understand the broad content of the item bank. Items are formally allocated across a course outline in a three-step process*:

1. CETE psychometricians use a formula which assumes that all competencies within a course outline are *essential* and of equal importance to produce a suggested test blueprint for review by Ohio Department of Education program specialists and SMEs.
2. SMEs review the blueprint as a large group before item writing for a specific EOC test. There and in small groups, SMEs review the course outline and have the ability to make changes to the blueprint with a documented rationale based on their experience and expertise.
3. Any revisions during small group work must be approved by the larger panel of SMEs attending an item writing workshop, which is the last step and produces the final blueprint which is summarized in this document.



Test blueprints can provide high-level guidance to instructors on preparing students for testing. It is important to keep in mind that the blueprint is a tool that is used when developing the test item bank during initial item writing and test creation. As with all tests, the End-of-Course test forms are a sample of the item bank.

Interpreting the Blueprints

Test blueprints display the total number of test items SMEs planned to write to a particular *outcome* (as designated in the course outline created by the Ohio Department of Education Office of Career-Technical Education or by a vendor). The blueprint describes structure of the item bank which is the total pool of test items created. Final test forms of 40-items are created from the item bank.

* This newer process for producing test blueprints was implemented October 1, 2015. Item banks created prior to this date were completed under a different blueprint process and therefore we are looking backward to provide the structure of the item bank. As revisions are completed for those career fields, for example Information Technology (2017-18), the blueprint process used will be the newer model.

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Foundations of Firefighting and Emergency Medical Services

ODE Subject Code: 170342

Outcome #	Outcome Name	% Items Approved by SMEs
Strand 1. Business Operations/21st Century Skills		
1.01	Employability Skills	1.98
1.02	Leadership and Communications	1.98
1.03	Business Ethics and Law	4.95
1.04	Knowledge Management and Information Technology	0.99
1.05	Global Environment	2.97
1.06	Business Literacy	2.97
1.09	Financial Management	2.97
Strand 4. Emergency Medical		
4.02	Preparatory	31.68
Strand 5. Fire Science		
5.01	Organization and Mission	26.73
5.36	Hazardous Materials	3.96
Strand 6. Homeland Security		
6.04	Hazardous Materials	8.91
6.05	Emergency Operations Plan	4.95
Strand 8. Law Enforcement		
8.08	911 Telecommunication System	4.95



Firefighter I

ODE Subject Code: 170343

Outcome	Outcome Name	% Items Approved by SMEs
Strand 5. Fire Science		
5.5	Entry Techniques	3.16
5.6	Safe Egress	4.21
5.7	Ladders	4.21
5.8	Vehicle Fires	3.16
5.9	Inspecting Materials Storage	6.32
5.10	Search and Rescue	7.37
5.11	Structure Fires	18.95
5.12	Horizontal Ventilation	9.47
5.13	Vertical Ventilation	6.32
5.14	Structure Overhaul	5.26
5.15	Salvage Operations	4.21
5.16	Water Supply	3.16
5.17	Fire Classification	5.26
5.18	Scene Lighting	3.16
5.19	Utilities Shutoff	4.21
5.20	Ground Cover Fires	3.16
5.21	Rope Use	4.21
5.36	Hazardous Materials	4.21

Firefighter II

ODE Subject Code: 170344

Outcome #	Outcome Name	% Items Approved by SMEs
Strand 5. Fire Science		
5.23	Incident Management	5.26
5.24	Records and Documentation	5.26
5.25	Radio Communication	6.32
5.26	Foam Application	12.63
5.27	Interior Fire Suppression	14.74
5.28	Life Safety	11.58
5.29	Fire Investigation	4.21
5.30	Vehicle and Equipment Use	13.68
5.31	Fire Prevention	4.21
5.33	Safety Inspection	7.37
5.34	Tool Maintenance	9.47
5.35	Hose Maintenance	5.26



Homeland Security Protecting America's Critical Infrastructure

ODE Subject Code: 170916

Outcome #	Outcome Name	% Items Approved by SMEs
Strand 6. Homeland Security		
6.01	Terrorism and Disaster Preparedness	23.66
6.02	Infrastructure and Border Protection	17.20
6.03	Intelligence Gatherine	17.20
6.04	Hazardous Materials	27.96
6.05	Emergency Operations Plan	13.98



Emergency Medical Technician

ODE Subject Code: 170345

Standard	Number of Items	% Items Approved by SMEs
Strand 4. Emergency Medical		
4.03	Anatomy and Physiology	1.04
4.04	Medical Terminology	1.04
4.05	Pathophysiology	1.04
4.06	Life Span Development	1.04
4.07	Public Health	1.04
4.08	Pharmacology	3.13
4.09	Airway	3.13
4.10	Assessment	9.38
4.11	Medicine	27.08
4.12	Shock and Resuscitation	2.08
4.13	Trauma	21.88
4.14	Special Patient Populations	10.42
4.15	Emergency Medical Services (EMS)	9.38
4.16	Clinical Behavior/Judgment	8.33



The American Criminal Justice System

ODE Subject Code: 170911

Outcome #	Outcome Name	% Items Approved by SMEs
Strand 1. Business Operations/21st Century Skills		
1.01	Employability Skills	13.64
Strand 4. Emergency Medical		
4.01	Basic First Aid	9.09
Strand 8. Law Enforcement		
8.01	Evolution and Foundations	22.73
8.07	Behavioral Science	12.50
8.09	Criminal Law	21.59
8.10	Court Systems	10.23
8.11	Sentencing	10.23



Security and Protective Services

ODE Subject Code: 170912

Outcome #	Outcome Name	% Items Approved by SMEs
Strand 1. Business Operations/21st Century Skills		
1.03	Business Ethics and Law	10.23
1.04	Knowledge Management and Information Technology	3.41
1.06	Business Literacy	4.55
1.09	Financial Management	4.55
Strand 2. Asset Protection		
2.01	Professional, Private and Corporate Security	21.59
2.02	Information and Product Security	20.45
2.03	Fraud	17.05
2.04	Retail Loss Prevention	6.82
2.05	Physical Security and Threat Assessment	6.82
2.06	Securities Compliance Investigations	4.55



Police Work and Practice in Public Safety

ODE Subject Code: 170913

Outcome #	Outcome Name	% Items Approved by SMEs
Strand 1. Business Operations/21st Century Skills		
1.02	Leadership and Communications	6.74
1.05	Global Environment	5.62
Strand 8. Law Enforcement		
8.02	Use of Force	21.35
8.03	Traffic Procedures	16.85
8.04	Patrols	16.85
8.05	Surveillance and Detection	12.36
8.06	Crime Prevention	8.99
8.08	911 Telecommunication System	11.24



Investigations and Forensics in Criminal Investigations

ODE Subject Code: 170914

Outcome #	Outcome Name	% Items Approved by SMEs
Strand 7. Investigation and Forensics		
7.01	Investigative Process	18.89
7.02	Interviews and Interrogations	12.22
7.03	Drugs and Toxicology	11.11
7.04	Blood and Fingerprints	17.78
7.05	Financial Crimes	14.44
7.06	Forensic Science	11.11
7.07	Forensic Science Specialties and Evidence	14.44



The Correctional System and Services

ODE Subject Code: 170915

Outcome #	Outcome Name	% Items Approved by SMEs
Strand 3. Corrections		
3.01	The Correctional System	19.54
3.02	Incarceration	13.79
3.03	The Corrections Officer	11.49
3.04	Emergency Situations	9.20
3.05	Searches	10.34
3.06	Booking and Release	10.34
3.07	Medical Issues and Security	6.90
3.08	Suicide	11.49
3.09	Mental Health	6.90



Medical Terminology

ODE Subject Code: 072150

Outcome #	Outcome Name	% Items Approved by SMEs
Strand 2. Human Body System		
2.1.	Human Body Form, Function, and Pathophysiology	25.81
2.3.	Medical Terminology	18.28
Strand 3. Therapeutic Interventions		
3.3.	Pharmaceutical Interventions	7.53
Strand 4. Assistive Care		
4.1.	Scope of Practice	15.05
4.3.	Pathogenic Microorganisms, Infection Control, and Infection	4.30
Strand 5. Bioscience Research and Development		
5.3.	Microbiology Testing and Technology	5.38
Strand 6. Health Information Management		
6.1.	Health Information Literacy	10.75
6.2.	Confidentiality, Privacy, and Security	6.45
6.3.	Electronic Health Records and Coding	6.45



Human Anatomy and Physiology

ODE Subject Code: 072040

Outcome #	Outcome Name	% Items Approved by SMEs
Strand 2. Human Body System		
2.1.	Human Body Form, Function, and Pathophysiology	43.90
2.2.	Evaluate Body Systems	18.29
2.3.	Medical Terminology	21.95
Strand 5. Bioscience Research and Development		
5.3.	Microbiology Testing and Technology	4.88
5.4.	Bio-Molecular Technology	3.66
5.5.	Laboratory Standard Operational Procedures	3.66
5.6.	Culturing	3.66

