# Mapping Sciences/Photogrammetry Exam Specification

## Knowledge Domains/Sub-domains

## I. Standards and Specifications

### I.A. Statutes and Rules (8% of total exam)

- Determine levels of precision and order of accuracy
- Determine applicable laws, ordinances and standards

### I.B. Standards – (what the standard says) (11% of total exam)

- Select appropriate vertical and horizontal datum
- Determine levels of precision and order of accuracy
- Determine applicable laws, ordinances and standards

## II. Professional Practices and Procedures -- Photogrammetry

### II. A. Project Planning (13% of total exam)

- Select appropriate vertical and horizontal datum
- Determine levels of precision and order of accuracy
- Consult with and advise clients and/or agents
- Plan control, method of data acquisition, integration and documentation
- Research and evaluate geodetic control
- Research and evaluate maps, images and photography
- Research and evaluate geographic information

### II. B. Geodesy and Map Projections (7% of total exam)

- Select appropriate vertical and horizontal datum
- Research and evaluate geodetic control

### II. C. Data Acquisition (16% of total exam)

- Perform reconnaissance of physical features (e.g., Monuments, topography etc.
- Recover horizontal/vertical control
- Establish network/framework for control (e.g., Aerotriangulation, satellite obstruction, strength of figure)
- Adjust/calibrate instruments
- Measure using photogrammetric methods
- Measure using GPS (exposure station)
- Measure using LIDAR, digital laser scanning

### II. D. Data Reduction and Analysis (16% of total exam)

- Adjust/calibrate instruments
- Reduce measurements
- Analyze and adjust measurements
- Compute areas and volumes
- Convert data to an appropriate datum

### II. E. Documentation and Map Presentation (9% of total exam)

- Select appropriate vertical and horizontal datum
- Convert data to an appropriate datum
- Prepare maps, plats and reports (hard copy/digital)
- Develop and/or provide data for GIS
III. Business/Professional Practices

III. A. Business Principles and Communication (10% of total exam)

| consult with and advise clients and/or agents |
| determine staffing levels and capabilities |
| prepare and negotiate proposals and/or contracts |
| Facilitate, consult, coordinate, and manage projects with allied professionals and/or regulatory agencies |

III. B. Quality Assurance – (how to apply standard to job) (10% of total exam)

| determine applicable laws, ordinances and standards |
| determine levels of precision and order of accuracy |
| perform visual inspection to verify mapped features |
| Field verify map accuracy |

There are a total of 100 questions. Examinee is to answer all questions. The length of the exam is 6 hours.