ASET Professional Practice Exam Candidate Handbook

ASET | THE ASSOCIATION OF SCIENCE
AND ENGINEERING TECHNOLOGY
PROFESSIONALS OF ALBERTA

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Introduction

The **ASET Professional Practice Exam (PPE) Candidate Handbook** helps those applying to ASET for the certified technician (C.Tech.) or certified engineering technologist (C.E.T.) designations with the PPE component of their applications.

Examination Information

Purpose of Exam

The purpose of the ASET Professional Practice Exam is to test C.Tech. and C.E.T applicants on their knowledge of the *Engineering and Geoscience Professions Act* and related regulations and of the practice of applied science, information, and engineering technology in accordance with section 13(1)(c) of the ASET Regulation. The ultimate goal is to protect the public by granting designations only to those practitioners who have an understanding of professionalism, law, and ethics in relation to the profession.

This exam must be written by all candidates, unless they have passed the NPPE.

Examination Format

The examination consists of 110 multiple-choice questions of which there are 10 experimental questions that are not counted towards the candidate's exam score and are used for future exam development. Each multiple-choice question has four answer options, only one of which is correct. Exam questions vary in the level of cognitive difficulty. The exam is closed-book and is two and a half hours in duration.

Prior NPPE (National Professional Practice Exam) Completion

Candidates who have successfully completed the NPPE with APEGA or ASET are not required to write the ASET Professional Practice Exam; however, must request exemption from the ASET exam **prior applying for certification.**

To request exemption from the ASET PPE Exam, candidates to email the ASET Registration department at exams@aset.ab.ca with the request and when/where they passed the NPPE, and if the exam was written with APEGA, their APEGA ID and name on file.

A verification process will be carried out by ASET Staff. Upon verification, the candidate will be exempted from the ASET Professional Practice Exam and will be provided further instructions to complete the registration process.

Eligibility

To be eligible to sit the exam, candidates must have at least 24 months of technical work experience. For this reason, student and T.T. members may not register to the write the exam.

Examination Registration

All C.Tech. and C.E.T. candidates register in the online initial application process, with their choice of the available exam dates (at the time of their application with ASET), and following payment of all assigned fees, applicant will receive confirmation of their choice exam date and location by emailed order confirmation. The ASET Professional Practice Exam webpage contains the available dates, locations, and the current exam fee.

Location of Examination Centres and Virtual Proctoring

The ASET Professional Practice Exam will be administered on a computer in one of Meazure Learning's exam centres in Alberta or through the virtual proctoring service.

Physical locations: Edmonton, Calgary, Grande Prairie*, and Lethbridge*. *limited seating*

Virtual proctoring*: This method of exam delivery uses a webcam with a virtual proctor to allow the candidate to write the exam from home. Work computers and networks are **no longer** permitted as there has been a significant increase in exam candidate technical issues (due to firewalls and restrictions on installing the necessary software to take the exam). To write the exam virtually, it is mandatory to use a personal device and network. This method also has the following additional requirements:

Exam room requirements
- Quiet and private room; **if anyone enters the room during the exam other than the above the candidate, the exam results may be invalidated**
- Good quality lighting in the room; no bright lights or windows behind candidate
- Desk must be clear of any notes, books, or electronics with access to power outlets and internet connection (Ethernet plugged or high-quality password protected Wi-Fi)

Internet requirements
- A hardwired connection is preferred (wireless permitted but not encouraged)
- Internet speed must be a minimum of 10Mbps.
- Browser's pop-up blocker must be disabled (for help doing this, following this link)
- Test internet speed using any of the following tests:
  - http://speedtest.googlefiber.net/
  - http://beta.speedtest.net/
  - https://fast.com

Computer requirements
- Laptops or desktop computers are permitted so long as they have the following minimum requirements:
  - https://support.proctoru.com/hc/en-us/articles/115011772748-Equipment-Requirements
  - PC users must have Windows 10 to align with the operating system Microsoft is supporting
  - No virtual machine desktops (must be on the host desktop), or tablets or smartphones
  - Candidates must source their own computers with the minimum specifications for the exam
  - Google Chrome **required** (can use Firefox, Safari, but Chrome is highly recommended)
  - Laptops must be plugged in during the exam to prevent the exam terminating early due to battery failure
- Functioning free standing or integrated webcam with microphone or independent microphone
- Only one computer monitor allowed

Guardian Secure Proctoring Browser requirements
- Candidates must download the Guardian Secure Proctoring Browser <u>ahead</u> of exam.
  - Windows Download
  - Mac (Intel) Download
  - Mac (M1) Download
    - To determine which Apple download to use, refer to this support article.
- Google Chrome is highly recommended to download the browser

NOTE: It is the candidate's responsibility to ensure that the internet and computer requirements are met <u>prior</u> to the exam administration date. The **compatibility check** information will be located in your BOOKING CONFIRMATION email which is sent by Meazure Learning.

- **Applicants must conduct a compatibility check using the computer they will use, in the room they will write in to test their connectivity prior to the virtually proctored exam. If they do not complete the compatibility check, there is no guarantee that the exam will happen. *The ProctorU exam program cannot be downloaded until the day of your exam so there is no way to check if it will work prior to exam day.***
- **Meazure Learning has an FAQ page with a short tutorial video on the ProctorU program.**

Exam Time and Location Confirmation

All candidates will receive a confirmation email with the writing time and address of the testing centre location (physical location only) that was chosen at the time of application by **email from Meazure Learning one to two weeks before the exam date**. The confirmation email is important to review and a printed copy is required for admission to write the exam. Candidates can contact Meazure Learning directly at testingsupport@meazurelearning.com to have the exam registration information re-sent if they did not receive the confirmation email by the deadline above.

Policy for Reschedules, Rewrites, and Attempts

Candidates who wish to reschedule their exam must email the ASET Registration Department (exams@aset.ab.ca) with the new exam date. Candidates who reschedule **after the registered exam's Registration Deadline Date** are required to pay **the full exam fee** to reschedule. If the request is received **before** this deadline date, then there are no fees to reschedule.

Candidates who are required to re-write the examination must email the ASET Registration Department (exams@aset.ab.ca) with the requested exam date. ASET Staff will follow up to obtain payment of the exam rewrite fee in order to register for the requested date.

Candidates may attempt the exam **a maximum of three times** within one year from the date of application and must pass the exam within this time period.

COVID-19 Cancellation Policy

If a candidate falls ill on the day of the exam and has flu/cold symptoms, please contact exams@aset.ab.ca immediately. If writing at a testing centre, candidates will be denied entry and will be unable to write the exam.

Upon contacting ASET, the exam will be cancelled. To waive the examination fee to reschedule again, proof of positive test will be required.

Exam Accommodations for Candidate with Disabilities

According to Canadian human rights legislation and test industry standards, exam developers are responsible for providing candidates with disabilities with exam accommodations where appropriate and feasible. Exam accommodations are designed to remove barriers related to individual characteristics of candidates that may prevent them from demonstrating their technical competencies on the exam. "An appropriate accommodation is one that that responds to specific individual characteristics but does so in a way that does not change the construct the test is measuring or the meaning of scores."[1]

Candidates with disabilities must request accommodations to write the ASET Professional Practice Exam **seven (7) weeks before the exam date of their choice**. In writing to the ASET Registration Staff to exams@aset.ab.ca with the appropriate documentation.

To protect the integrity of the examination, documented evidence of the candidate's disability must be submitted to ASET along with the application form. Such evidence includes a formal detailed diagnosis of the specific disability from an appropriate professional (e.g., physician, psychologist, rehabilitation counsellor) and supporting documentation citing the need for exam accommodations and what accommodations the candidate received in the past.

ASET will review the candidate's written request for accommodation and determine if it can be supported. Depending on the candidate's individual needs, ASET may modify exam material or exam administration conditions, including exam setting, exam presentation, or the addition of individuals to the exam (e.g., readers, scribes). Each request will be reviewed on a case-by-case basis.

Below is a list of reasonable exam accommodations for candidates with a disability.*

1. **Separate Room** - A separate room is provided to candidates who due to the nature of their disability require an exam environment that minimizes distractions resulting from noise or movement or process information by talking aloud.

2. *Additional Time* - Extending additional time to candidates is a frequently used exam accommodation that is used with a variety of disability-related conditions. Often candidates are offered time and a half to complete the exam (e.g., a 3-hour exam is extended to 4.5 hours).

3. **Interpreter** - Candidates with hearing impairment may request an interpreter who has proficiency in sign language.

4. **Reader** - A reader is an individual who reads exam instructions and/or exam questions to a candidate. Candidates with visual impairment or those with a learning disability may benefit from services of a reader during the examination.

5. **Recorder** - A recorder is an individual who fills in the answers for a candidate who has difficulty writing independently.

*All costs related to exam accommodations will be the responsibility of the candidate.

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[1] 1 American Educational Research Association (2014). Standards for Educational and Psychological Testing. Washington, DC (p. 67).

Exam Content (Syllabus)

The following major subject areas are included in the ASET Professional Practice Exam:
PART I: Legislation and Regulation (20%)
- Part 5 of the EGP Act: Discipline
- Part 8 of the EGP Act
  - Division 1, ASET
  - Division 3, Professional Technologists
  - Division 4, Other ASET Members
  - Division 5, Discipline of Regulated Members
  - Division 7, Prohibitions and Penalties
- ASET Regulation AR 282/2009
- Canadian Professional Engineering and Geoscience Practice and Ethics:
  - Chapter 2: Regulation of Engineering and Geoscience
  - Chapter 3: Disciplinary Powers and Procedures

PART II: Professional Practice and Law (40%)
- Canadian Professional Engineering and Geoscience: Practice and Ethics
  - Chapter 1: Introduction to the Professions
  - Chapter 4: Basic concepts of Professional Practice
  - Chapter 6: Hazards, Liability, Standards and Safety
  - Chapter 7: Computers, Software, and Intellectual Property
  - Chapter 8: Fairness and Equity in the Professional Workplace
  - Chapter 17: Maintaining Your Professional Competence
- Practical Law of Architecture, Engineering and Geoscience
  - Chapter 1: The Canadian Legal System
  - Chapter 20: Labour Law
  - Chapter 21: Employment Law
  - Chapter 22: Health and Safety Law
  - Chapter 23: Environmental Law
  - Chapter 26: Privacy Law
  - Chapter 27: Internet Law
- Occupational Health and Safety Act of Alberta

Part III: Ethics (40%)
- ASET Code of Ethics and Guidelines for Interpretation
- Canadian Professional Engineering and Geoscience: Practice and Ethics
  - Chapter 9: Principles of Ethics and Justice
  - Chapters 10-12: Ethics Concepts and Cases
  - Chapter 13: Environmental Ethics

Study Materials

The following is a list of required textbooks and PDFs to use for preparation for the exam.

Textbooks

These can be obtained from Amazon, Chapters, Bookshelf® app, Kijiji, or another exam candidate for PPE or NPPE if the textbooks are not available from the publishers' websites. Costs for the two textbooks will vary depending on where the candidate obtains them.

1. Canadian Professional Engineering and Geoscience: Practice and Ethics - Sixth Edition by Gordon C. Andrews (2019 Copyright)

   Note: The fifth edition can be used to prepare for the exam as well

2. *Practical Law of Architecture, Engineering and Geoscience - 4th Edition by Samuels & Sanders (2023 Copyright)*

   Note: The Third Edition includes the same content as the Second Edition but with additional examples and cases; either edition may be used to prepare for the exam.

PDFs
Free to download.

3. ASET Professional Practice Exam Legislation Handbook
   o This is a study guide which provides all of the information necessary for exam preparation from *The Engineering and Geoscience Professions Act* (EGP Act) and *The ASET Regulations* (AR 282/2009). Reviewing the individual documents is optional.

4. *The ASET Code of Ethics*

5. *Occupational Health and Safety Act of Alberta. Statutes of Alberta, 2020 Chapter O-2.2, current as December 2021*

Practice Exam for Purchase

Practice exam questions are available for purchase through Meazure Learning. As these questions are hosted by a third-party educational partner, candidates will need to create a new account to access the practice exam. This login is **not associated** with the candidate's ASET ID.

A one- time attempt practice exam of 25 questions* is available. While the candidate can repurchase the same practice exam at a later date; the questions **will not change**.

Day of Examination

Admission to the Examination Centre

Upon entering the examination centre, Candidates will be asked to register with the proctor. The following information is required:
- candidate's first and last name (Must match candidate's registration with ASET),
- a valid government-issued photo ID (non-expired),
- candidate's printed confirmation email as provided by Meazure Learning

   Important Notes:
   - If you have a non-expired temporary driver's license you must also provide another form of photo identification. The first and last name on both documents must match. It is preferred that the photo identification not be expired.
   - If your only form of photo identification has expired you must also provide another form of non-expired identification. The first and last name on both documents must match.
   - If you have any other concerns about your forms of identification, please contact Meazure Learning support immediately to ensure your identification will be accepted on exam day: testingsupport@meazurelearning.com.

After the initial verification of identity, candidates will be asked to sign a roster.

Candidates' personal belongings, such as bags and jackets, will be stored in a designated area. At the proctor's discretion, candidates may be asked to remove hats, watches or other items that may possibly conceal aids to ensure examination security.

Permissible Items
- Disposable ear plugs (provided by candidate).
- Scrap paper and pencils will be provided by the proctor to the candidates before the exam (if requested) and collected after the exam.

Prohibited Items
- Electronic devices (i.e. calculators, cell phones, pagers, personal digital assistants etc.)
- All types of food and beverages.
- Unauthorized examination aids, assistance or collaboration materials.

Taking the Exam

At the beginning of the examination, candidates will hear verbal examination instructions from the proctor and read the Candidate's Statement of Understanding and/or Non-disclosure Agreement in the software. Failure to comply with the regulations outlined in these documents will result in the candidate's results being invalidated. Candidates will not be able to begin the examination without agreeing to the conditions outlined in the document. The assigned ID and chosen password will be used to log in when prompted by the proctor.

Next, candidates will be given written exam instructions in the software. These instructions will emphasize that if the text is too small on the screen, candidates can adjust the text size on the screen. After the instructions, there will be a tutorial before candidates proceed to the exam.

The exam is closed-book and is two and a half hours in duration.

Upon submitting their exam responses, candidates will be offered an opportunity to provide feedback on exam material and exam administration conditions by completing a short online survey. **Results of the exam are not provided to the candidates at this time**. Candidates will then submit their scrap paper to the proctor, sign out from the candidate roster, and leave the examination centre.

After the Exam

Examination Scoring

Multiple-choice examination questions are scored dichotomously, using a score of "0" for an incorrect response and a score of "1" for a correct response. The ASET Professional Practice Exam is a criterion-referenced exam, which means that a candidate should obtain a score that is equal to or higher than an exam pass mark to pass the examination.

Pass Mark

The pass mark for the exam was set by the Exam Committee, which took into account the difficulty of exam questions and the expected level of performance for a minimally competent technology professional. A psychometrically acceptable standard-setting methodology was used to set the examination pass mark.

The pass mark for the ASET Professional Practice Exam is 67%.

Results

Candidates are emailed the results **within two to three weeks after the** exam date. Exam results are reported to the candidate as "pass" or "fail".

Unsuccessful candidates will also receive a performance report outlining areas for further study and information about registering to re-take the exam. Please refer to the Rewrite Policy section in this handbook to schedule the next exam date.

Review and Appeal Process

A candidate who fails the ASET Professional Practice Exam may request that their exam score be verified. Due to the automated scoring and extensive quality control procedures, errors in scoring are extremely unlikely. However, candidates may request that ASET manually rescore their exam to verify the original score.