

CASUALTY ACTUARIAL SOCIETY



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2021

SYLLABUS OF BASIC EDUCATION



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REVISION HISTORY

| Revision | Issue Date | Description of Revision |
|----------|------------|---|
| 0 | 01/11/2021 | Initial publication |
| 1 | 02/08/2021 | Diversity Reimbursement Program updated |

Items in the *Syllabus of Basic Education* printed in red indicate an update, clarification, or change since initial publication.

All policies and procedures in the *Syllabus of Basic Education* are effective as of the date above and supersede all previous policies and procedures. This Syllabus includes information on the application and registration processes; detailed information about examinations, grading, and accreditation; membership requirements; and so on. Each candidate must read the entire *Syllabus* BEFORE beginning the application, registration, and payment processes for examinations.



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ANNOUNCEMENTS FOR 2021

Exam Registration for Exams MAS-I, MAS-II, and 5 through 9

CAS-administered examinations — Exams MAS-I, MAS-II, and 5 through 9 — will continue to be administered through computer-based testing (CBT) in partnership with Pearson VUE.

See Examination Registration: Filing of Applications and Deadlines and Examination Centers and Scheduling, both under part A, Registration, in the Examination Rules section, for more details about the registration process.

There is only one registration deadline for each exam. **No late registrations will be accepted.** The exam dates and registration deadlines are available in the 2021 Examination Schedule section of this Syllabus. For those candidates registering by mail, please allow at least 10 working days for your mailed application to reach its destination. Whether payment is made by personal or company check, it is the candidate's responsibility to ensure that the application and fee are received by the stated deadline. **Exceptions will not be made.**

Diversity Reimbursement Program in Canada or the United States

The Program is being expanded to include more diverse groups and applying to additional exams. See page 13 of this *Syllabus* for additional information.

Note: This Syllabus is subject to change in the future.

The Syllabus for each examination is defined in the form of Learning Objectives, Knowledge Statements, and Readings. The Learning Objectives present the learning goals for the underlying subjects being tested and set forth, usually in broad terms, what the candidate should be able to do in actual practice. The Knowledge Statements describe the body of knowledge corresponding to the exam subject and are illustrative of the scope of each Learning Objective. The Readings are recommended resources that support the Learning Objectives and may assist candidates to prepare for the examination. The CAS is not responsible for any errors or omissions found in the content of the resources identified in the Readings.



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INTRODUCTION

Principles of the Casualty Actuarial Society for Basic Education

The primary purpose of the Casualty Actuarial Society (CAS) basic education process is to ascertain whether candidates for CAS designations have satisfied CAS learning objectives. The CAS Board of Directors adopted the following principles on May 6, 2001.

1. Basic education will remain a cornerstone of the CAS.
2. The CAS will assure that its members have the knowledge of those areas needed to practice effectively in the broad and expanding range of property, casualty, and similar business and financial risks (general insurance).
3. The CAS is committed to a depth of knowledge of techniques associated with the broad range of property, casualty, and similar business and financial risks.
4. The CAS will provide the basic education necessary to meet qualification standards to sign statements of actuarial opinion for general insurance and related specialties in at least the U.S. and Canada.
5. The education process will provide a balance among theoretical concepts, practical applications, and business acumen, to prepare our members to deliver high-quality service to meet current and projected future needs of employers and clients.
6. The CAS will approve the syllabus and examination standards used in determining eligibility for CAS membership.
7. Demonstration of mastery of the skill sets required of members is critical to basic education.
8. The CAS is committed to maintaining self-study as one route for attainment of designations.
9. The CAS will pursue strong working relationships with academia and professionals in related fields.
10. The CAS will attract a pool of strong candidates from a variety of backgrounds to the actuarial profession.
11. The CAS supports the goal of developing a global shared foundation of actuarial education, including joint sponsorship of examinations where consistent with other principles.
12. The CAS, as an educator of general insurance and related specialties, will remain a significant contributor to the worldwide actuarial profession.



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Syllabus Goals and Objectives

One of the primary objectives of the Casualty Actuarial Society (CAS) is the development of qualified professionals in the field of casualty actuarial science. The CAS conducts an educational and examination program for prospective members in order to achieve this objective.

The syllabus goals and objectives are as follows:

1. To develop a general understanding of the social, political, regulatory, legal, economic, and financial environment of the business of property and casualty insurance and similar risk assessment as well as the historical development of that environment.
2. To develop a thorough understanding of the fundamental mathematical concepts applicable to solving insurance and similar risk assessment problems, and to develop a high degree of skill in their applications.
3. To develop a comprehensive understanding of the business of property and casualty insurance, including underwriting, claims, marketing, and finance, as well as how these functions are performed and interrelated.
4. To develop a working knowledge of property and casualty insurance policies and contracts.
5. To develop an expert knowledge of a broad range of techniques to solve problems and to develop the ability to discern the appropriateness of techniques for particular applications based on knowledge of the underlying assumptions, strengths, and weaknesses.
6. To develop an expert knowledge of a broad range of relevant and standard actuarial practices in order to present a framework for the use of problem-solving techniques.
7. To encourage a sense of inquisitiveness and creativity toward problem solving in order to foster an appreciation of the art in actuarial science.

Note: *The items in this Syllabus were chosen for their educational value. They are intended to expose the candidate to a wide range of information and to a variety of methods, opinions, and practices in the casualty actuarial field. Inclusion of material in the Syllabus does not imply that the CAS endorses the views, methodologies, or techniques therein.*

Education and Examination System

The CAS vice president–admissions supervises the CAS education and examination system. The vice president–admissions is supported by two standing admissions committees, as described below, and ad hoc task forces formed to address specific admissions-related issues.

CAS Candidate Liaison Committee

The Candidate Liaison Committee strives to focus on issues of importance to candidates who are taking CAS Examinations. The committee serves as a direct point of contact for candidates to voice individual or group concerns regarding the education and examination process. It also provides a means for an exchange of information between candidates and the admissions committees via *Future Fellows*, a quarterly newsletter, and the *Future Fellows* Hot Topics. Candidate representatives who are actively involved in the examination process serve as members of the committee. Candidates can contact the Candidate Liaison Committee at CLC@casact.org.



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CAS Syllabus & Examination Committee

The CAS Syllabus & Examination Committee determines the scope and content of the *CAS Syllabus* and course of readings for CAS Examinations. It also organizes, manages, administers, and grades CAS Examinations. The committee also establishes the standards to be achieved by successful candidates.

The chairperson supervises the committee and is responsible for the overall development of the *Syllabus of Basic Education* and the administration of CAS Examinations. The committee is composed of Fellows who represent a broad spectrum of CAS members including insurers, consultants, regulators, and academics. Long-term Associates of the CAS who are not actively taking examinations may serve as members of the committee. One or more members specialize in the material for each examination part. Several senior committee officers with the title of general officer assist the chairperson. The committee is subdivided into Examination Part Committees, each headed by an examination part chairperson. Two or more vice chairs assist the examination part chairperson—these vice chairs take responsibility for the main distinct operations of the examination part team, for example, syllabus development, examination creation, and exam administration.

Members of the Canadian Institute of Actuaries (CIA) who are also Fellows of the CAS serve on the Examination Part Committee for Exam 6-Canada for examination creation and administration. The CIA's Exam 6-Canada Syllabus Subcommittee, composed of Fellows of the CAS and CIA, develops the syllabus for that exam. Long-term Associates of the CAS and CIA who are not actively taking examinations may serve as members of the committee.

The following provides details about the CAS-specific syllabi and examinations:

- The responsibility for each CAS Examination syllabus is assigned to an Examination Part Committee that reviews the individual exam syllabi regularly. Both short- and long-term goals for improvement are developed. Textbooks and articles may be designated for inclusion. If the committee determines that new study material needs to be developed or that existing material needs to be revised, the committee may commission the creation of Study Notes for inclusion. Every effort is made to develop material that is appropriate, relevant, up-to-date, concise, and well written. Suggestions for improvement are always welcome and should be directed to the CAS Syllabus & Examination Committee at the CAS Office address.
- The responsibility for each CAS Examination is assigned to an Examination Part Committee that writes, grades, and maintains the standards for that examination. One or more examination consultants who are CAS members and are experts on the material covered by that examination assist each part committee. A proofreader who concentrates on uniformity and grammar also assists the part committees. In addition, academic consultants who are independent experts from the academic community assist some part committees.
- Each examination is drafted by the responsible Examination Part Committee to test candidates' knowledge of the items listed in the syllabus for the specific exam. The individual part committee, examination consultants, one of the CAS Syllabus & Examination Committee general officers, the CAS Syllabus & Examination Committee chairperson, and in some cases, academic consultants review each examination to assure its quality.
- Every effort is made to ensure that the questions fall within the scope of the individual exam syllabus. Complete coverage of all material is not practical for every examination every year. The goal is to produce examinations that contain representative, high-quality questions that test candidates' knowledge of the material. Trick questions are deliberately avoided, and the wording of each question is considered carefully to eliminate ambiguities. Preliminary versions of each examination are thoroughly reviewed in relation to all of these factors before the final examination is approved.



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Ad Hoc Task Forces

As needed, ad hoc task forces are formed to provide targeted research, analysis, and recommendations to the CAS Executive Council and Board of Directors, so they are better able to ensure that the goals of the education and examination system are met, and that the education and examination system meets the needs of the Society, its members, its potential members, and other stakeholders.



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2021 EXAMINATION SCHEDULE

Exams for Online Courses 1 and 2 through The Institutes®

| TEST WINDOW | EXAM DATES | DURATION | START TIME | EXAM REFUND DEADLINE |
|------------------------------|------------------------|----------|------------|---|
| January—March Test Window | Jan. 15—March 15, 2021 | 2 Hours* | Various | Three business days prior to scheduled exam—fees apply. |
| April—June Test Window | April 15—June 15, 2021 | | | |
| July—September Test Window | July 15—Sept. 15, 2021 | | | |
| October—December Test Window | Oct. 15—Dec. 15, 2021 | | | |

* Candidates taking the virtual online courses will have 100 minutes to complete 75 application-based multiple-choice questions.

April/May 2021 Exam Administration through Pearson VUE

| EXAM | EXAM DATES | DURATION | START TIME | REGISTRATION DEADLINE | REFUND DEADLINE |
|----------------------|----------------------|----------|-----------------|-----------------------|-----------------|
| MAS-I | April 26—May 3, 2021 | 4 Hours | See note below. | April 9, 2021 | April 16, 2021 |
| MAS-II | April 26—May 3, 2021 | | | | |
| Exam 5 | May 3—May 8, 2021 | | | | |
| Exam 6-Canada and | May 3—May 8, 2021 | | | | |
| Exam 6-United States | May 3—May 8, 2021 | | | | |
| Exam 7 | May 3—May 8, 2021 | | | | |
| Exam 8 | May 3—May 8, 2021 | | | | |
| Exam 9 | May 3—May 8, 2021 | | | | |



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October 2021 Exam Administration through Pearson VUE

| EXAM | EXAM DATES | DURATION | START TIME | REGISTRATION DEADLINE | REFUND DEADLINE |
|----------------------|------------------|----------|-----------------|-----------------------|-----------------|
| MAS-I | Oct. 18—23, 2021 | 4 Hours | See note below. | October 1, 2021 | October 8, 2021 |
| MAS-II | Oct. 18—23, 2021 | | | | |
| Exam 5 | Oct. 23—29, 2021 | | | | |
| Exam 6-Canada | Oct. 23—29, 2021 | | | | |
| Exam 6-United States | Oct. 23—29, 2021 | | | | |
| Exam 6-International | Oct. 23—29, 2021 | | | | |
| Exam 8 | Oct. 23—29, 2021 | | | | |

SP9 Exam Administration for CERA Designation

| | EXAM DATE | DURATION | START TIME | REGISTRATION DEADLINE | REFUND DEADLINE |
|------------------------|-----------------|----------|---------------------|-----------------------|-------------------|
| April Administration | April 23, 2021 | 3¼ Hours | Check Entry Permit. | February 12, 2021 | February 11, 2021 |
| October Administration | October 1, 2021 | 3¼ Hours | Check Entry Permit. | July 30, 2021 | July 29, 2021 |

Important Schedule Notes

- For Exams MAS-I, MAS-II, and 5 through 9, candidates will schedule their individual exam date and start time with Pearson VUE test centers.
- Candidates preparing to sit for Exam SP9 should confirm the exam dates at <https://www.actuaries.org.uk/>.



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2021 BASIC EDUCATION SUMMARY

ASSOCIATESHIP REQUIREMENTS

Validation by Educational Experience

VEE-Accounting and Finance
VEE-Economics

Online Courses

Online Course 1 Risk Management and Insurance Operations (same as The Institutes Course CA1)
Online Course 2 Insurance Accounting, Coverage Analysis, Insurance Law, and Insurance Regulation (same as The Institutes Course CA2)

Examinations

Exam 1 Probability
Exam 2 Financial Mathematics
Exam 3F Financial Economics
Exam MAS-I Modern Actuarial Statistics-I
Exam MAS-II Modern Actuarial Statistics-II
Exam 5 Basic Techniques for Ratemaking and Estimating Claim Liabilities
Exam 6 Regulation and Financial Reporting (Nation-Specific)

Course on Professionalism

FELLOWSHIP REQUIREMENTS

Fellowship requires all Associateship requirements plus the following:

Exam 7 Estimation of Policy Liabilities, Insurance Company Valuation, and Enterprise Risk Management
Exam 8 Advanced Ratemaking
Exam 9 Financial Risk and Rate of Return



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CERA DESIGNATION REQUIREMENTS

The CERA designation requires all Associateship requirements plus the following:

- Exam 7 Estimation of Policy Liabilities, Insurance Company Valuation, and Enterprise Risk Management
 - Exam 9 Financial Risk and Rate of Return
 - Exam SP9 Enterprise Risk Management Specialist Principles of the Institute and Faculty of Actuaries (U.K.)
- Enterprise Risk Management and Modeling Seminar for CERA Qualification



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EXAMINATION RULES

A. Registration

Examination Administration

The CAS basic education structure has Validation by Educational Experience (VEE) requirements, two online courses, several examinations (see 2021 Basic Education Summary), and the Course on Professionalism.

Exams 1, 2, and 3F

For Exams 1, 2, and 3F, the candidate should contact the sponsoring organization for information on its examination policies, fees, scheduling, and so on.

Online Courses 1 and 2

The two online courses, CAS Online Courses 1/CA1 and 2/CA2, are available through The Institutes and are offered by computer-based testing (CBT). Because there are distinctive processes and procedures for these examinations, additional information is available on the website of The Institutes (see below). The rules and procedures provided there related to Online Courses 1/CA1 and 2/CA2 are part of the CAS Examination Rules.

Exams MAS-I, MAS-II, and 5 through 9, and the Course on Professionalism

The CAS exclusively administers Exams MAS-I, MAS-II, and 5 through 9, as well as the Course on Professionalism. The Canadian Institute of Actuaries (CIA) co-sponsors all the examinations except Exam 6-United States and Exam 6-Actuarial Institute of Chinese Taipei.

The CAS-administered examinations utilize CBT in partnership with Pearson VUE testing centers.

Examination Registration: Filing of Applications and Deadlines

Online Courses 1 and 2

CAS Online Courses 1/CA1 and 2/CA2 are available through The Institutes. When candidates register for the individual online course, the fee includes one attempt at the exam. Before registering for the exam, candidates must obtain their Master ID number from the CAS — it will be required to register for the exam. After progressing through the online course, candidates arrange for their exam by contacting:

The Institutes, Customer Success Team
720 Providence Road, Suite 100
Malvern, PA 19355-3433
Telephone: 800.644.2101 or 610.644.2100, ext. 6000
E-mail: CustomerSuccess@TheInstitutes.org
CAS Online Courses page at the website of The Institutes: <https://web.theinstitutes.org/casualty-actuarial-society>



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Exams MAS-I, MAS-II, and 5 through 9

Exam registration is a two-step process. A candidate's exam registration is NOT complete until both steps have been completed.

Step 1: A candidate must register with the CAS and pay the registration fee. Candidates may submit either an online or a printable registration for Exams MAS-I, MAS-II, and 5 through 9. Candidates will find [exam registration](#) and related information on the CAS website.

Candidates will be sent an acknowledgment of receipt of their application within three weeks of the date that the application form is received at the CAS Office, beginning in early February for April/May Examinations and early August for October/November Examinations. This acknowledgment is the candidate's receipt of exam fees paid. Please retain this acknowledgment for tax purposes if needed. **Candidates who have not received an acknowledgment prior to the registration deadline should contact the Administrative and Customer Support department (at acs@casact.org) or their accounting department to ensure that their applications reached the CAS Office.** Candidates can also verify their registration by logging in to their CAS account and checking their profile.

Online Registration:

A candidate using this option must complete an online registration form with the CAS and pay the registration fee. Candidates may find online exam registration and related information on the CAS website.

Applications must be received by the registration deadlines stated in the Examination Schedule of this Syllabus. Payment must accompany each application to be valid. Candidates submitting their registrations online must pay by credit card. All credit card payments will be processed in U.S. funds.

It is the candidate's responsibility to ensure that the application and fee are received by the stated deadline. Exceptions will not be made.

Printable Registration:

A candidate using the printable registration option must submit a signed exam application for each examination period and pay the registration fee. Candidates may find the printable exam application form on the CAS website.

Applications must be received by the registration deadlines stated in the Examination Schedule of this Syllabus. Please allow at least 10 working days for your mailed application to reach its destination. **Payment must accompany each application to be valid.** Whether payment is made by personal or company check, it is the candidate's responsibility to ensure that the application and fee are received by the stated deadline. **Exceptions will not be made.**



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SYLLABUS OF BASIC EDUCATION
2021
Examination Rules

If paying by credit card, the completed exam application form may be sent to the CAS Office by e-mail to acs@casact.org. **Please note that applications sent by e-mail MUST be scanned—that is, not photographed by a cell phone.** Alternatively, the candidate may mail the application with credit card (Visa, MasterCard, or American Express) payment information to:

Casualty Actuarial Society
4350 N. Fairfax Drive, Suite 250
Arlington, Virginia 22203
Telephone: 703.276.3100

If paying by check or money order, candidates should mail the exam application form with check or money order in U.S. funds or Canadian equivalent, payable to “Casualty Actuarial Society,” to:

Casualty Actuarial Society
P.O. Box 425
Merrifield, VA 22116-0425

All overnight deliveries should be sent to:

Casualty Actuarial Society
4350 N. Fairfax Drive, Suite 250
Arlington, Virginia 22203
Telephone: 703.276.3100

Step 2: A new candidate creates, or a returning candidate logs in to, his or her account with Pearson VUE and schedules a time and location to take the exam at one of the Pearson VUE Professional Testing Centers.

Within 5 days after candidates register with the CAS, they will receive an examination Authorization-to-Test (ATT) e-mail from Pearson VUE, providing login details and notification that they are now eligible to start the scheduling process.

Pearson VUE testing center locations and exam times are available on a first-come, first-served basis. If you do not receive your preferred testing date and location, additional options through Pearson VUE may become open over time.

Candidate Name

Candidates must use their legal name on all examination registration materials and when corresponding with the CAS. Any change in name must be accompanied by acceptable documentation.



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Fees

Examination fees must be paid each time a candidate registers for an exam. Payment options are described in a previous section, Examination Registration: Filing of Applications and Deadlines. A \$20 surcharge will be assessed for all returned checks. The charts below show the examination fee schedules at the time of publication. All fees are listed in U.S. dollars and are subject to change. Other fees that may apply include fees for change of center, refund, and/or a special exam center. NOTE: The administrative fee for refunds will be waived for the Spring 2021 exam sitting.

| 2021 Examination Fees | | |
|---|------------|--------------------|
| Examination | Candidates | Full-Time Students |
| Exam MAS-I & MAS-II | \$500 | \$400 |
| Exams 5, 6-Canada, 6-United States, 7, 8, and 9 | \$725 | \$580 |
| Online Courses 1 & 2 Retest* | \$450 | \$450 |
| Exam SP9 | \$675 | \$675 |

| Other Fees | |
|---|-------|
| Refund (Exams MAS-I, MAS-II, 5 through 9, and SP9) | \$100 |
| Change of Exam Center | \$60 |
| Online Courses 1/CA1 and 2/CA2: Contact The Institutes for fees that apply. | |

* The first exam attempt is included in the \$765 Online Course fee.

Diversity Reimbursement Program in Canada and the United States (U.S.)

The CAS/SOA Committee on Actuarial Diversity is offering a reimbursement program rewarding those Diversity candidates who pass Exams P/1, FM/2, IFM/3F, SOA LTAM, and/or CAS MAS-I. Diversity candidates — African American, Black, Hispanic/Latinx, and Native North Americans or Indigenous residents — who pass these exams will be reimbursed for the fees for the passed exam. An applicant must be either a Canada or U.S. citizen, an asylum seeker, or have a permanent resident or educational visa in Canada or the U.S. This reimbursement program is not designed for individuals employed full-time in an actuarial position or for those who have been reimbursed from any other source (including employer or university).

Diversity candidates, who receive a score of 4 or 5 on these exams, are now eligible to be reimbursed for the fees and to receive a one-time study material stipend of \$175.

Further information and the reimbursement application are available in the Diversity Programs section of the actuarial career website at <https://www.beanactuary.org/diversity-programs/diversity-exam-reimbursement-program/>. Candidates have up to one year to apply for reimbursement.

Fee Discount Program in Qualified Countries

The CAS sponsors a program to provide financial relief to candidates in qualified countries. Eligible candidates must be current full-time residents of a qualified country. Candidates must write their exams in a qualified country. Information, including a list of qualified countries and the application, is available on the [Fee Discount Programs](#) page of the CAS website.



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Examination Centers and Scheduling

Please note: The CAS will not host exams in any country that has trade sanctions held against it per the U.S. Department of the Treasury.

Online Courses 1 and 2

Online Courses 1 and 2 examinations are administered at Prometric test centers. The Prometric website contains a list of its test centers.

Details for changing a CBT center for the Exams for Online Courses 1/CA1 and 2/CA2 are available on The Institutes' website (<http://www.aicpcu.org/cas.htm>).

Exams MAS-I, MAS-II, and 5 through 9

Within 5 days after candidates register with the CAS, they will receive an examination Authorization-to-Test (ATT) e-mail from Pearson VUE, providing login details and notification that they are now eligible to start the scheduling process.

Pearson VUE testing center locations and exam times are available on a first-come, first-served basis.

Included in the ATT e-mail from Pearson VUE is the link to create a Pearson VUE account and to schedule the candidate's preferred time and location to sit for the exam. The e-mail will also include the Pearson VUE Customer Service phone number in case the candidate's preference is to book a time and location over the phone.

Once the candidate has scheduled the exam, Pearson VUE will send a confirmation e-mail including the exam date, the examination time, the address of the exam center, and directions to the exam center.

The [CAS Scheduling Guide](#) provides detailed, step-by-step instructions for the Pearson VUE scheduling process.

Test Center Policy on Exam Rescheduling

Candidates must contact Pearson VUE or access their online Pearson VUE account to reschedule their exam test center and/or exam time a minimum of 48 hours prior to their appointment. Candidates cannot change their exam location less than 48 hours prior to their appointment. A candidate's failure to appear for his or her appointment will result in the forfeiture of the exam fee.

Cancellation Policy

Candidates should both notify the Administrative and Customer Support department (at acs@casact.org) and also cancel their exam with Pearson VUE by logging in to their Pearson VUE account or calling the Pearson VUE Customer Service number at least 48 hours prior to their appointment. Failure to cancel an examination with both the CAS and Pearson VUE could result in the cancellation being incomplete and remaining as a scheduled exam. A candidate's failure to appear for his or her appointment will result in the forfeiture of the candidate's exam fee. Please refer to the [CAS refund deadline](#) to avoid fees.

Candidates should be aware that due to Pearson VUE requirements, exam registrants who register and then decide to sit for a different exam will be required to cancel their original CAS registration and Pearson VUE exam appointment and then re-register and make a new exam appointment. Please note that there are no fees associated with switching exams after the initial registration.



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Refunds

Online Courses 1 and 2

The fee for Online Courses 1/CA1 and 2/CA2 includes one attempt at the exam by CBT. No refund for a course is provided once the candidate has accessed the online course. If the candidate decides not to access the online course after payment has been made, the candidate may submit a request for a refund. The request must be submitted to the Customer Success Team at The Institutes (CustomerSuccess@TheInstitutes.org).

Any candidate who registers for a course exam and subsequently decides not to take the exam may receive a refund for the exam portion of the course fee only by doing both of the following:

- Canceling the appointment at the test center prior to the third day preceding the exam, and
- Submitting a refund request to the Customer Success Team at The Institutes, which must arrive prior to the third day preceding the exam.

Refund credits are applied according to The Institutes cancellation policy. Contact The Institutes Customer Success Team at 800.644.2101 for more information.

Exams MAS-I, MAS-II, and 5 through 9

Any candidate who submits an application for Exams MAS-I, MAS-II, or 5 through 9 and subsequently does not intend to write the examination should submit a written request prior to the refund deadline for an examination fee refund. This request must reach the CAS Office by the refund deadline stated in the Examination Schedule of this *Syllabus*. Refund requests may be sent via e-mail to refund@casact.org. Late requests will not be considered. A \$100 administrative fee per examination will be assessed on all refunds. (NOTE: This administrative fee will be waived for the Spring 2021 exam sitting.) The change-of-center fees, special center fees, and other additional fees will not be refunded in any case. Refunds will be issued one month after the refund deadline. Refunds are issued in the manner in which fees were paid, that is, by credit to a bank card or by check to an individual or company. Fees cannot be transferred from one exam session to another.

No-Show Fee

Candidates are free to reschedule or cancel an exam at a test center up to 48 hours before the scheduled testing time. Candidates who miss their testing time will be considered no-shows and not issued a refund. Candidates considered no-shows will be charged a \$100 fee. Be advised that 48 hours is not 2 business days; it is 48 hours prior to the scheduled exam start time.



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Languages Other Than English (for Exams MAS-I, MAS-II, and 5 through 9, and Online Courses 1 and 2)

Examinations including questions and instructions will be administered exclusively in English. Candidates must submit written responses in English; non-English responses will not be graded, with the following exception: Should a candidate for an exam jointly sponsored by the Canadian Institute of Actuaries wish to respond to any or all of the constructed-response test items (essay questions) in French, advanced notice must be provided to the CAS Office when applying to write the exam. Provided such advanced notice was received and a suitable translator is available from the Canadian Institute of Actuaries, responses submitted in French will be translated into English by qualified translators and graded exclusively in translation. All translations will be literal translations from French to English. If advance notice has not been provided, non-English responses will not be graded. If a suitable translator cannot be engaged before the date of the exam, the candidate will be notified. The CAS cannot guarantee the accuracy of any translation. Appeals based upon errors in translation of a candidate's responses will not be considered.

Special Arrangements for Candidates with a Disability

If a candidate has a disability and requires a specific accommodation (not related to English as a second language), such as a time extension or a reader/recorder, the candidate will need to obtain prior approval from the CAS before Pearson VUE can complete the booking.

To apply for an accommodation, please e-mail bcraiver@casact.org. Documentation is requested as early as possible but must be submitted at least two weeks prior to the registration deadline.

After the accommodation has been approved by the CAS, the candidate's request will be forwarded to Pearson VUE for approval. If Pearson VUE approves the request, the CAS will send the candidate the contact information for the Accommodation Team at Pearson VUE. The candidate will be responsible for calling the Accommodation Team to register for the examination and to book the candidate's preferred time and location over the phone and ensure that the accommodation is recorded in the Pearson VUE system. **Scheduling an exam online does not arrange the accommodation with the testing center.**



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B. The Examination

Introduction

The examinations for admission to the Casualty Actuarial Society are designed to establish the qualifications of candidates. The CAS Syllabus & Examination Committee creates exams that follow guidelines developed for and shown in this *Syllabus*. Nevertheless, complete coverage of all readings listed in the particular exam syllabus is not practical for every exam every year. The goal is to produce exams that contain representative, high-quality questions that test a candidate's knowledge of topics that are presented in the Learning Objectives of each exam's syllabus. Thus, the candidate should expect that each exam will cover a large proportion of the Learning Objectives and associated Knowledge Statements and syllabus readings, and that all of these will be tested at least once over the course of a few years.

The syllabus for each examination is defined in the form of Learning Objectives, Knowledge Statements, and readings. The Learning Objectives present the learning goals for the underlying subjects being tested and set forth, usually in broad terms, what the candidate should be able to do in actual practice. The Knowledge Statements describe the body of knowledge corresponding to the exam subject and are illustrative of the scope of each Learning Objective. The readings are recommended resources that support the Learning Objectives and may assist candidates to prepare for the examination. The CAS is not responsible for any errors or omissions found in the content of the resources identified in the readings.

Exam questions are based on the published Learning Objectives and supporting Knowledge Statements. It is intended that the readings, in conjunction with the material as outlined in the next section, will provide sufficient resources to allow the candidate to perform the Learning Objectives. The exams will test not only a candidate's knowledge of the subject matter, but also the candidate's ability to apply that knowledge.

The Institutes create exams for the online courses that follow the Learning Objectives contained in the individual courses.

Note: *This Syllabus is subject to change in the future. Candidates may review [syllabus updates](#) on the Exams & Admissions section of the CAS website for changes to the individual examination syllabi.*

Order of Examinations and VEE Topics

In the development of the syllabus readings and exam questions, it is generally assumed that candidates for Associateship-level Exams MAS-I, MAS-II, 5, and 6 are familiar with material covered on the preliminary exams; Fellowship-level Exams 7, 8, and 9 generally assume familiarity with material on the Associateship-level exams. There are, however, circumstances when another order might be more appropriate. For example, a candidate may wish to study an exam that is closely related to his or her current work.

Validation by Educational Experience (VEE) topics are not prerequisites to taking actuarial exams and may be fulfilled independently of the exam process (prior to or concurrent with taking actuarial exams). In some cases, however, understanding the material within a VEE topic may help make the material for an exam easier to understand. For example, VEE-Economics and VEE-Accounting and Finance will help strengthen candidates' understanding of managerial decision making, and therefore completing these topics prior to taking Exam 9 will make material for this exam easier to understand.

Candidates are encouraged to take Online Course 1 and Online Course 2 immediately after they begin their first employment related to property and casualty (P&C) insurance. For Exams 5 through 9, the general concepts and knowledge covered on those two Online Courses are often used to establish real-world context for exam questions. Thus, it will be helpful for candidates to take the two Online Courses prior to taking Exams 5 through 9, although detailed knowledge is not assumed except as noted below.



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To help candidates decide which exam to take, the following chart indicates which exams assume knowledge of material found on prior exams. While the CAS does not test Learning Objectives and Knowledge Statements directly from other exams, most candidates will find it easiest to study for an exam after studying for all of the exams listed in the Prior Knowledge column.

| Exam or VEE Requirement | Assumes Prior Knowledge from the Following Exam(s) |
|----------------------------|---|
| VEE-Accounting and Finance | None |
| VEE-Economics | None |
| Online Course 1/CA1 | None |
| Online Course 2/CA2 | None |
| Exam 1 | None |
| Exam 2 | Exam 1 |
| Exam 3F | Exams 1 and 2 |
| Exam MAS-I | Exams 1 and 2 |
| Exam MAS-II | Exams 1 and MAS-I |
| Exam 5 | Exams 1 and 2 |
| Exam 6-Canada | Exams 1 and 5, and Online Course 2 |
| Exam 6-United States | Exams 1 and 5, and Online Course 2 |
| Exam 7 | Exams 1, 2, MAS-II, and 5, and VEE-Accounting and Finance |
| Exam 8 | Exams 1, 2, 3F, MAS-I, MAS-II, and 5 |
| Exam 9 | Exams 1, 2, 3F, MAS-II, and 5, and VEE-Economics and VEE-Accounting and Finance |

Hours of Study

Passing actuarial exams requires many hours of study — more for some people and less for others, but often more than many candidates realize. Putting in enough hours can actually save a candidate time. Suppose, for example, that mastering the syllabus for one exam will take a candidate 400 study hours, but the candidate only puts in 300 hours and fails the exam the first time. He or she then puts in an additional 300 hours and passes the exam the second time. That candidate will have spent 600 hours, when by studying 400 hours the first time around, he or she would have saved 200 hours, not to mention passing sooner. It is recommended that candidates decide for themselves how many hours they really need to study, and then do that much studying — the first time around.



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Requirements for Admission to Examination Center

Prometric Test Centers for Online Courses 1 and 2

For admission into the Prometric test centers, each candidate must present a valid government-issued photo identification that includes the candidate's signature (details are available on The Institutes' website for exams for the two online courses).

Pearson VUE Professional Testing Centers for Exams MAS-I, MAS-II, and 5 through 9

The CAS asks that candidates arrive at the test center 30 minutes prior to their scheduled appointment time. This will give them adequate time to complete the necessary sign-in procedures. A candidate who arrives more than 15 minutes late for his or her appointment may be refused admission.

Each candidate must be prepared to show one government-issued form of identification. The unexpired ID must contain the candidate's name (exactly as it appears on the exam registration), photo, and signature. Please review the [ID policy](#) for acceptable forms of identification.

For security purposes, before a candidate may enter the testing room, the candidate will be required to review the testing center rules, provide his or her signature, have a digital facial photo taken, and have a [palm vein scan](#). No personal items may be taken into the testing room except an approved calculator. This includes all bags, books, notes, phones, writing instruments, watches, and wallets.

In the testing area, a [laminated spiral notebook](#) will be available to the candidate with a fine-point felt pen for scratch work. If a candidate needs additional notebooks, he or she should raise a hand, and the proctor will provide up to two additional notebooks. The testing center will ask candidates to empty pockets, submit eyeglasses for inspection, and clear the memory function of the calculator that is brought into the testing center.

Calculators: See Use of Calculators for CAS-Administered Examinations, below, for more information regarding the use of calculators during the examination.

Earplugs: Noise-canceling headphones and individually packaged foam earplugs are available at the testing center.

Note: Candidates should refer to the [Pearson VUE website](#) for the most up-to-date information on requirements for admission to the testing centers.



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Conduct of Examinations for CAS-Administered Examinations

Candidates should also note the following:

- The scheduled appointment time for the exam is 4.5 hours.
 - Four (4) hours will be used to answer the exam questions presented. There will be a timer warning in the exam at 1 hour, 15 minutes, and 5 minutes.
 - There will be 30 minutes allotted to the other four parts of the examination process: the introduction, agreeing to the CAS Examination Discipline Policy (see below), the examination tutorial, and the post-exam survey. Refer to the demo exams, which can be found on the Pearson VUE website, to view the timer location. **Exams MAS-I, MAS-II, and 5 through 9 will no longer have a reading period.**
- Except as is noted in the rule regarding calculators, no books, papers, typewriters, slide rules, laptops, or electronic or mechanical aids for computation of any kind may be brought into the examination room by candidates, nor may any candidate communicate with, or obtain any assistance from, any other candidate during the examination.
- Candidates must respond to constructed-response test items (essay questions) in English unless advance notice is given (see Languages Other Than English under part A, Registration, in the Examination Rules section).
- Candidates will not have access to either their Pearson VUE spreadsheets, nor their laminated spiral notebooks subsequent to the examination.
- The examinations will no longer be posted in the Exams section of the CAS website.

Use of Calculators for CAS-Administered Examinations

Candidates may bring the following battery- or solar-powered models of the following Texas Instruments calculators to the testing center: BA-35, BA II Plus, BA II Plus Professional, TI-30Xa, TI-30X II (IIS solar or IIB battery), TI-30XS MultiView (or XB battery). Candidates may request a calculator at the testing center if they neglect to bring one. There is a digital TI-30XS MultiView calculator embedded in the exam for the candidate's use during the exam; refer to the demo exam link to view the features and functionality. One calculator is allowed into the testing area. If a candidate chooses to bring additional calculators, they can be stored with his or her personal belongings in a provided locker at the testing center. Candidates may take a break to exchange calculators if necessary. However, keep in mind that as with all breaks, the exam clock will continue to run.

For those using the BA II Plus, BA II Plus Professional, TI-30X II (IIS solar or IIB battery), or TI-30XS MultiView (or XB battery) models, candidates will be required to show examination proctors that the memory has been cleared prior to the start of the examination. For the BA II Plus and BA II Plus Professional, clearing will reset the calculator to the factory default settings.

Calculator instructions cannot be brought into the examination room. During the examination, the calculator must be removed from its carrying case so the proctor can confirm it is an approved model. **Any unauthorized calculator brought to the testing center will be confiscated for the duration of the examination. Candidates using a calculator other than the approved models will be subject to examination disqualification and other disciplinary action.**

Candidates may purchase calculators from stores or directly from Texas Instruments: telephone 800.842.2737 (1-800-TI-CARES); website <http://www.ti.com>.

It is the candidate's responsibility to see that the calculator used during the examination is in good working order.



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CAS Examination Discipline Policy

Candidates must not give or receive assistance of any kind during or after the examination. Any cheating, attempt to cheat, assisting others to cheat, participating therein, or engaging or appearing to engage in improper conduct such as noted in the CAS Examination Discipline Policy herein is a serious violation and will result in the CAS disqualifying the candidate's exam and additional consequences determined by the vice president–admissions. This may include a temporary or permanent ban from sitting for CAS Examinations. Members of the CAS are also subject to the CAS investigative and discipline process, such as through the Actuarial Board for Counseling and Discipline (ABCD) or the Canadian Institute of Actuaries (CIA), for any violations of the CAS Code of Professional Conduct. Candidates have agreed in their applications for examination to be bound by the rules and regulations governing the examinations.

Examples of improper conduct include but are not limited to:

1. Improperly obtaining or providing examination questions before or after the examination or aiding someone else to do so.
2. Using an unauthorized calculator (as defined in the Syllabus) or other mechanical aid that is not permitted.
3. Having access to or consulting notes, books or other unauthorized materials or devices during the examination.
4. Talking or otherwise communicating with another candidate during the examination.
5. Disturbing other candidates during the examination.
6. Consulting other persons during the examination.
7. Copying questions, answers, or answer choices to take from the examination.
8. Taking any of the laminated spiral notebooks from the examination room.
9. Arranging to have another person take an examination for the candidate.
10. Threatening or physically or verbally abusing a supervisor or proctor responsible for curbing or reporting improper conduct.
11. Disclosing the contents of an examination to any other person without authorization from the CAS. This includes, but is not limited to, discussion on internet forums or social media.
12. Presenting false information on an examination application.
13. Failing to remain in the examination room for a minimum of two hours during the examination (for examinations with this requirement).
14. Failing to follow other examination instructions.
15. Accessing or using a communication device (cell phone, tablet, etc.) during the examination or while at the examination site.
16. Interfering with the operation of CAS network system, examination platform, or server, including but not limited to accessing or attempting to access examination results through unauthorized means before the official release of results by the CAS.
17. Conducting or engaging in any other improper activities that affects the integrity of CAS examinations as determined by CAS.



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SYLLABUS OF BASIC EDUCATION
2021
Examination Rules

The CAS Syllabus & Examination Committee, or its designee, will investigate any irregularity or suspected violation of the rules involving the examination process, and a determination will be made regarding the matter. Where there is a determination to invoke a penalty, the candidate is advised by letter. In the case of a candidate who is a member of the CAS, the candidate's conduct will be reported to the Actuarial Board for Counseling and Discipline (ABCD) or to the Canadian Institute of Actuaries (CIA) if the final penalty invoked is more than disqualification of the examination.

Candidates for the CAS Examinations are expected to follow the rules and procedures included in this Syllabus. All candidates, on their applications for examinations, are required to read and sign the following statement: "I have read the rules and regulations concerning the examination(s) for which I am applying and agree to be bound by them. I also agree that the results of any examination(s) which I take, and any action taken as a result of my conduct may, at the sole discretion of the Casualty Actuarial Society, be disclosed to any other bona fide actuarial organization that has a legitimate interest in such results and/or actions."

Any dispute or controversy arising under or in connection with the CAS Examination Discipline Policy shall be settled exclusively by arbitration to be held in the Commonwealth of Virginia in accordance with the rules of the American Arbitration Association then in effect. Judgment may be entered on the arbitrator's award in any court having jurisdiction.

The CAS may, at its sole discretion, disclose to any other bona fide actuarial organization having a legitimate interest, information on the identity of candidates determined to have committed a serious examination violation (those for which the penalty is greater than the simple disqualification/nullification of the examination), and the specific penalties imposed on those candidates.

If an actuarial organization with which the CAS has a working relationship (such as the Society of Actuaries) invokes a penalty against a candidate for improper conduct during an examination for which the CAS is not a joint sponsor, the CAS will invoke the same penalty for all CAS-sponsored examinations. If the CAS takes any disciplinary action, it will notify the other actuarial organizations of that action.

These standards may seem stricter than those which candidates are accustomed to in other examination environments. The CAS maintains these strict standards because the examinations are such a significant part of a candidate's career. Therefore, the equitable administration of the examinations and enforcement of the highest standards of conduct cannot be emphasized too strongly.

The [CAS Rules of Procedure for Disciplinary Action Involving Candidates](#) is available on the CAS website.



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Discipline for Online Courses

The rules for the computer-based administration for Online Courses 1/CA1 and 2/CA2 are available on [The Institutes website](#).

Multiple-Choice Questions

Exams MAS-I and MAS-II consist entirely of multiple-choice questions; other CAS Examinations may have a section of multiple-choice questions. Each multiple-choice problem includes five answer choices, identified by the letters A, B, C, D, and E, only one of which is correct. It is important that only one answer be given for each question.

Exams for the two online courses will consist entirely of multiple-choice questions. Each multiple-choice problem includes four answer choices, identified by the letters A, B, C, and D, only one of which is correct. For exams administered by computer-based testing (CBT), candidates should click on the appropriate answer. It is important that only one answer be given for each question.

Guessing Adjustment

On the exams for Online Courses 1/CA1 and 2/CA2, no guessing adjustment is made to candidates' scores. Therefore, candidates will maximize their scores on these examinations by answering every question.

On Exams MAS-I, MAS-II, and 5 through 9, multiple-choice questions are scored in such a way that there is no advantage or disadvantage to be anticipated from guessing answers in a purely random fashion as compared with omitting the answers entirely. No additional points will be given for multiple-choice questions left blank, but one-quarter of the point value for each question will be deducted for each incorrect answer.

Constructed-Response Test Items

The admissions process is intended to identify candidates who have demonstrated sufficient mastery of the learning objectives to be admitted as members of the CAS. Examinations that provide a means for better-prepared candidates to demonstrate that mastery are critical to meeting that objective.

Educators often refer to a tool called Bloom's taxonomy to classify questions into six cognitive levels. Bloom levels range from Level 1, broadly characterized as knowledge, to Level 6, characterized as evaluation. Lower levels of the taxonomy stress recall of facts and an understanding of main ideas; higher levels within the taxonomy stress synthesis, comparison, and subtlety of understanding.

Bloom levels are as follows:

Level 1: Knowledge — tests the ability of the candidate to recall or remember knowledge or facts

Level 2: Comprehension — requires the candidate to demonstrate comprehension of central concepts through explanation of those concepts

Level 3: Application — measures the candidate's ability to apply ideas and concepts to new situations

Level 4: Analysis — requires the candidate to analyze information by separating material into component parts, including identifying facts and developing inferences with respect to a situation

Level 5: Synthesis — tests the ability of a candidate to synthesize, or combine, concepts or ideas, and to develop and defend the position resulting from that combination



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Level 6: Evaluation — requires the candidate to support conclusions by evaluating the validity of ideas and concepts

Generally, questions at higher Bloom levels will have higher point values. As a result, examinations with more questions at higher Bloom levels will contain fewer questions, which may result in less syllabus coverage on a particular exam.

Lost Examinations

The CAS — or its designee — is not responsible for lost or destroyed examinations. In the case of a lost or destroyed examination, the examination fee will be refunded. The CAS and its designees will assume no other obligation and candidates must take the examinations with this knowledge.

For Online Courses 1/CA1 and 2/CA2 that are administered by The Institutes, the policy of The Institutes will apply.



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C. Grades and Accreditation

Overview of CAS Examination Processing

Starting with the Fall 2020 exam administration, the CAS transitioned to computer-based testing (CBT) for Exams MAS-I, MAS-II, and 5 through 9. Online Courses 1 and 2 continue to be administered by The Institutes and scored according to its CBT methodologies.

In a change from the past, copies of the examinations will NOT be posted on the Exams page of the CAS website. Copies of exams administered before Fall 2020 are available at no charge in the [Past Exams and Pass Marks](#) section of the CAS website.

Grading of Examinations

For Exams 5 through 9, there are no changes to the way a candidate's exam answers are evaluated, except that graders are now able to consider formulas entered in the Pearson VUE spreadsheets. As has always been the case, candidates are encouraged to show all their work, with partial credit offered for candidates who are able to demonstrate some understanding of the question.

Pearson VUE does not release any exam results. The CAS releases exam results when grading is complete, and a final pass mark is determined.

Step 1

Upon completion of Exams MAS-I, MAS-II, and 5 through 9, the results are uploaded and provided to the CAS Syllabus & Examination Committee for grading.

Step 2

Committee members review candidate feedback regarding potentially defective questions and decide how they will be handled in the grading process. Discussions on the best course of action are often a very time-consuming part of the grading process. See Candidate Feedback, below.

Step 3

Each grading team is given access to the Pearson VUE spreadsheets for all candidates for the exam items it is responsible for grading. Some graders are given more than one question to grade. A suggested answer key exists for each question, but alternative solutions may be correct, and the graders must be open to different approaches to a problem. About two dozen responses are graded, and then the results are compared. The grading partners will establish a consistent grading rubric and then evaluate the solution key. Consistency and accuracy are the most important factors in grading the responses.

Step 4

The scores of each grading partner must be within a prescribed tolerance. If the scores do not fall within this tolerance, the partners must discuss the candidate's answer sheet and come to a decision on what the point value should be. When all the questions have been reconciled to the required tolerance, the scores are totaled, and a tentative pass score is selected based on the pass mark panel's recommendation, various statistics, and guidelines.

This triggers the second round of reconciliation. Candidates who have scores within a certain number of points from the tentative pass score will have all of their answers reconciled completely. This gives an exact score for any candidate near the passing score. The scores for any candidates who are close to passing will be checked manually as well. The committee members will then look at the statistics one more time and make a final recommendation for the passing score.

Step 5

After the grading session, the part chair will create and submit a report to the general officer of the exam series, the CAS Syllabus & Examination Committee chairperson, and the vice president–admissions. In the report, the part chair recommends a passing



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score, gives a detailed analysis of the exam, and notes any unusual questions or situations that required special handling. The chairperson and general officer hold a teleconference with the vice president–admissions and a representative from the Canadian Institute of Actuaries (except for Exam 6-United States) to discuss all of the exams from the series and to finalize the passing scores.

Step 6

After the vice president–admissions and a representative from the Canadian Institute of Actuaries (except for Exam 6-United States) have approved the passing score, the data are verified and released to the CAS Office to update each candidate’s record. Candidates will be notified by e-mail when their exam results have been uploaded to their profile. Candidates can access their exam results by logging in to their My Exams page within their profile on the CAS website.

Determination of the Pass Mark

The goal of the examination system of the CAS is to pass all candidates who have demonstrated adequate knowledge of the syllabus and to fail those candidates who have not. The objective of the examinations is to evaluate candidate performance using criteria for demonstrating adequate knowledge that remain constant throughout the lifetime of the exam series. Preset pass marks — for example, a candidate will pass if he or she answers x percent of the questions correctly — are counter to this philosophy. The examinations are meant to measure the candidate’s level of achievement of the required learning objectives and his or her required level of capability of accomplishing specified learning outcomes.

Multiple-Choice Test Items on CAS-Administered Examinations

As part of the input to the pass mark determination process for the multiple-choice exams, a modified Angoff passing score study is performed, whereby a panel of experts in the subject material is convened to review the examination. This is a common testing and measurement technique. Each expert is asked to review each question in the examination and assess the difficulty of that question. More specifically, experts are asked to estimate the likelihood that a candidate with minimum adequate knowledge competency would answer the question correctly. The sum of these probabilities, averaged across the panel of experts, gives a preliminary estimate of the pass mark.

The estimated pass mark resulting from the modified Angoff passing score study is compared with and balanced against the actual performance statistics on the exam in finalizing the pass mark. The effects of any particularly difficult questions are also factored into the determination of the final pass mark.

Constructed-Response Test Items

For CAS Examinations consisting in whole or in part of constructed-response test items (written-answer or essay questions), the assessment process is somewhat different. Before the exam is administered, a pass mark panel reviews the exam and assesses it based on how the panelists think a minimally qualified candidate will perform based on a predetermined definition of the minimally qualified candidate. This process follows the same basic technique used for multiple-choice exams as described above. Based on this assessment, an expected pass mark is set.

Following the administration of each exam, responses to each constructed-response test item are graded simultaneously by two graders, who must reconcile their grading rubrics and grades. When all responses have been scored, the Examination Part Committee chooses a preliminary pass mark based on the results of the pass mark panel augmented by actual performance of the current candidates versus historical performance of previous candidate cohorts. Candidate papers with scores close to the preliminary pass mark are re-graded to ensure correct and consistent scoring.



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The Examination Part Committee then determines the tentative pass mark by again balancing actual performance statistics against minimum adequate knowledge while taking into account other factors such as time pressure situations that may have occurred on some questions. Because the level of difficulty for each examination may vary from year to year, each Examination Part Committee collects extensive data to ascertain the level of difficulty of its examination. The Examination Part Committee compares the performance of the present year's candidates with the performance of candidates from prior years. Appropriate recognition is given to any peculiarities that may appear in connection with the answers to any question on an examination despite all the care taken in setting the examination questions.

With the use of content-based pass marks, fluctuation in the pass rate from session to session is expected. Although the percentage of candidates passing will vary from year to year, those candidates demonstrating the required level of competence with the material will pass.

Final Pass Mark

A recommended pass mark is reached by consultation among the examination part chairperson, the general officer overseeing that examination, and the CAS Syllabus & Examination Committee chairperson. Any significant deviations from the à priori pass mark set by the pass mark panel are explored at this time. The recommended pass mark and explanations for deviations from the à priori pass mark are submitted to the vice president–admissions, who approves the final pass mark. As an informational item, the final exam statistics are forwarded to the CAS Executive Council and CAS Board of Directors.

After the pass mark is finalized, each candidate is assigned a score. Scores of 0 to 5 are assigned to candidates who do not pass. On this scale, each interval is 10 percent of the pass mark. For example, a grade of 5 equates to a candidate's score of at least 90 percent, but less than 100 percent, of the pass mark. A grade of 0 means that the candidate's score is less than 50 percent of the pass mark. Candidates at or above the passing mark will receive a score of 6 to 10. Historical passing numeric scores will not be provided.

Starting with the Fall 2020 exam administration, the CAS no longer releases the pass scores for Exams MAS-I, MAS-II, and 5 through 9. Certain other statistics, such as the percentage of candidates who passed the exam, will continue to be published. Pass marks for prior exams are available from the [Past Exams and Pass Marks](#) page of the CAS website. Raw scores are not provided to candidates.



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Examination Results

Online Courses 1 and 2

The exams for Online Courses 1 and 2 are offered by CBT. An unofficial pass/fail result will be displayed on the computer screen at the conclusion of the exam. When the official grades have been processed, candidates will receive an e-mail from The Institutes stating that their grades are available. Candidates may then log in to their account on the website of The Institutes (<http://www.TheInstitutes.org>) to access their grades. The grade report for each candidate will show the candidate's overall score on the exam in 10-point increments (for example, 60% to 69%, 70% to 79%, and so on). It will similarly show the candidate's performance by assignment using those same 10-point increments. Numeric scores are not released. Once final grades have been released, The Institutes will send a copy of the grades directly to the CAS Office to be added to the candidates' admissions records. **The Institutes sends this information to the CAS several weeks following the closing of the testing window. The CAS will post the names of passing candidates approximately two weeks later.**

Exams MAS-I, MAS-II, and 5 through 9

After exam results are received from the CAS Syllabus & Examination Committee at the CAS Office, candidates will be notified by e-mail that their exam results have been uploaded to their profile. Candidates can access their exam results only by logging in to their My Exams page within their profile on the CAS website. Candidates will be apprised of their scores — 0 to 5 for those who did not pass the exam and 6 to 10 for those who passed the exam. Exam results are no longer mailed to candidates.

Candidates for Exams MAS-I, MAS-II, and 5 through 9 who do not pass an exam will continue to have the opportunity to receive feedback on their exam performance.

To preserve candidate confidentiality, in the event of a lost or misplaced candidate ID number, the candidate ID number will be mailed to the candidate upon request. Under no circumstance will a candidate number be given out over the telephone or by e-mail. Candidates can also verify their candidate number by logging in to their profile on the CAS website.

Ambiguous or Defective Questions and Appeals for Online Courses 1 and 2

If a candidate believes a question is ambiguous or defective, he or she should bring this to the attention of The Institutes **in writing** within two weeks after the examination is administered. For the two online courses, the candidate must submit this correspondence to The Institutes. The correspondence should include detailed reasons why the question is believed to be ambiguous or defective. The Institutes will investigate all questions brought to its attention. A copy of the correspondence to The Institutes should be sent to the CAS Syllabus & Examination Committee.



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Candidate Feedback, Candidate Grievances, and Scoring Verification Request

Overview

While the past practice of using the published exam and Examiner's Report as the basis for providing feedback on an exam to the CAS will no longer be possible, candidates will continue to have an opportunity to provide feedback on potentially defective questions, including during the examination itself and immediately after submitting their exam. The process for providing feedback on potentially defective questions is outlined in the [CAS Candidate Feedback and Grievances Policy](#). The policy also includes mechanisms for candidates to express concerns about their exam experience and to request a verification that their responses were accurately collected.

A synopsis is given below; please see the policy for more details. If there is a discrepancy between the CAS Candidate Feedback and Grievances Policy and the synopsis below, the policy rules will govern.

Candidate Feedback

Candidate feedback is a communication that triggers a review but does not require a formal response. Some feedback may be made anonymously, and some would require candidate details. Candidates are reminded to be professional in their feedback.

Candidates are encouraged to use the CAS feedback mechanisms to the fullest. The primary feedback mechanisms are as follows:

1. Completing the **Post-Exam Questionnaire** within the Pearson VUE software to provide comments on the exam items and exam administration immediately after the exam.
2. Completing the **Post-Exam CAS Survey** to provide anonymous comments on the exam experience within two weeks after the exam.
3. Sending an **e-mail to the Administrative and Customer Support (ACS)** department (at acs@casact.org) to provide feedback about the exam and the exam experience within one week of the exam if feedback is intended to influence grading.

While candidates may use the **Comment** feature during the examination within the Pearson VUE software, it is **not** recommended to do so. Candidates should minimize the time spent offering feedback in this manner so as not to spend valuable exam time writing highly detailed feedback.

To the extent candidates suspect any items to be defective (such as items testing material not on the syllabus or items that cannot be answered with the information provided), such feedback may be provided through any of the above formats, but we encourage using the Post-Exam Questionnaire for this purpose as candidates will have notes available (written on the Pearson notebooks).

Candidate feedback, plus robust item statistics, analysis of candidate responses, and other information, will be used to identify defective items and as input into the scoring and pass mark selection processes. All such inputs will be considered prior to the release of the exam results.



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Candidate Grievances

A candidate grievance is a submission that requires a formal review and response.

A candidate grievance is a candidate concern unrelated to the content of the exam itself. Candidate grievances trigger a formal review and response by the CAS Syllabus & Examination Committee. Candidate grievances are accepted on the following grounds and conditions:

| Grounds | Conditions |
|---|---|
| Administration irregularities (noise, technology issues, and so on) | Requests must be received within 5 business days of exam date |

Recourse for administration irregularities depends on the severity of the disruption and whether the candidate is able to complete the exam. The most common remedy for severe instances is exam rescheduling without fee during the next available exam window.

The grievance review process will occur in a constructive, impartial, and timely manner. A record of the grievance, including any subsequent action(s) taken and decisions made, will be maintained by the CAS. All information pertaining to the grievance will remain confidential.

All grievances must be submitted on the official Grievance Form and e-mailed to grievance@casact.org. The candidate must provide the following information using the Grievance Form:

- Name and contact information
- Testing center name and location
- Date and time of exam appointment
- Exam number or name
- Grounds for the grievance
- Rationale or explanation

A CAS representative will acknowledge receipt within 3 business days. Candidates will be notified of the outcome, or a reason for further delay in the outcome, within 30 days of the submission date.



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Scoring Verification Request

A scoring verification request requires a small fee and will initiate a review and a response.

A scoring verification request is a formal candidate request for verification that the candidate's responses were accurately collected. Scoring verification requests trigger a formal review and response by the CAS.

The CAS has an internal quality assurance process to ensure candidate scores are reported correctly. Pearson's scoring methods are highly reliable and accurate. Rarely does a scoring verification on multiple-choice tests or constructed-response exams result in a score change.

Candidates can request a scoring verification check to ensure that their scores were transferred and reported correctly. It is important to note that the verification of constructed-response scores does not include re-reading or re-grading candidate responses.

The scoring verification request must be submitted on the [Scoring Verification Request Form](#) within 10 business days of the release of the exam results, and the completed form must be accompanied by a \$50 fee. Candidates within the Fee Discount Program can apply for a waiver of the fee by checking the appropriate box on the form. The verification fee does not entitle candidates to a copy of the test items, responses, additional grading details, or answer keys.

A CAS representative will acknowledge receipt within 3 business days. Candidates will be notified of the outcome, or a reason for further delay of the outcome, within 30 days of the submission date. If a change in the score results, candidates will receive a corrected score report and verification fees will be reimbursed.

Confidentiality of Examination Records

The fact that a candidate has passed a particular examination is considered public knowledge. Any further information as to examinations taken by candidates and scores received by candidates is available only to the candidates themselves, to CAS Syllabus & Examination Committee officials if required for committee purposes, and to the CAS Office, unless the candidate requests in writing that such information be provided to someone else. However, if any action is taken against a candidate as a result of his or her conduct (as described in the Examination Discipline section), the Casualty Actuarial Society, at its sole discretion, may disclose such information to any other bona fide actuarial organization that has a legitimate interest in such results and/or actions. The candidate authorizes and consents to the Society's using and disclosing (including, but not limited to, disclosing to the third-party contractors and service providers of the Society) personally identifiable information about the candidate as necessary and appropriate for the purposes of registering the candidate for the exam, conducting the exam, determining the results of the exam, and communicating with the candidate regarding the results of the exam.



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Transition Programs

The CAS generally reviews and makes revisions to the study material on an annual basis. Occasionally, a major topic will be added to or deleted from the syllabus. A major topic is defined as a series of learning objectives comprising a segment of an examination. When a major topic is added, the CAS Syllabus & Examination Committee will determine if a transition program is appropriate. A transition program is generally appropriate when candidates are in a position to lose credit for a segment of an examination.

A transition program usually will provide candidates with at least two opportunities to complete the requirements for that examination. The completion of the requirements will result in the achievement of credit for that entire examination. The failure to fulfill the requirements for that complete examination could result in the expiration of credit for that deleted topic at the end of the transition period. The CAS Board of Directors must approve any transition program.

Current Education Structure

No transition rules are available at this time for the current education structure.

Older Transition Rules Applicable to the Current Education Structure

- The CAS Board of Directors approved the following transition rules for the education structure that was implemented in January 2018.

To receive credit for the new Exam Modern Actuarial Statistics-I (MAS-I), the candidate must have credit for Exam S—Statistics and Probabilistic Models by January 1, 2018. To receive credit for the new Exam Modern Actuarial Statistics-II (MAS-II), the candidate must have credit for Exam 4—Construction and Evaluation of Actuarial Models by July 1, 2018. If the candidate has not completed Exam S and Exam 4 by these dates, the candidate will need to pass both Exams MAS-I and MAS-II.

| Candidate Credit | | Candidate Credit under Examination Structure Implemented in January 2018 | | Action Required to Earn Credit for new Exams MAS-I and MAS-II |
|---------------------|----------------------|--|-------------|--|
| Exam S by 1/1/2018* | Exam 4 by 7/1/2018** | Exam MAS-I | Exam MAS-II | |
| X | X | X | X | Credit granted. No candidate action required. |
| X | | X | | Complete Exam 4 examination requirement by 7/1/2018 or pass Exam MAS-II. |
| | X | | X | Pass Exam S before 1/1/2018 or pass Exam MAS-I. |
| | | | | Candidate must pass both Exam MAS-I and Exam MAS-II. |



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* Credit for Exam S must be achieved through an examination administered prior to January 1, 2018.

** Credit for Exam 4 must be achieved through an examination administered prior to July 1, 2018 or through course work completed by 12/31/2018 under the CIA's University Accreditation Program. See Waiver of Examinations Rules for the various ways a candidate can be granted a waiver by the CAS for its Exam 4 examination requirement.

The CAS has approved the following transitional waiver policies for examinations sponsored by the Institute and Faculty of Actuaries (United Kingdom), Actuaries Institute (Australia), Actuarial Society of South Africa (ASSA), and the Institute of Actuaries of India. Credit will be granted for examinations passed or waived in accordance with examination equivalencies between the CAS syllabus and the syllabi of each of the aforementioned actuarial organizations. The CAS will not grant credit for examinations waived on account of academic records achieved in U.S. universities.

- If a candidate has passed all three Exams CT4, CT5, and CT6 or A202, A203, and A204 by 8/31/2016, they will receive credit for CAS Exam S and subsequently CAS Exam MAS-I..
- If a candidate has passed both Exams CT4 and CT6 or A202 and A204 by 7/1/2018, they will receive credit for CAS Exam 4 and subsequently CAS Exam MAS-II.

2. The CAS Board of Directors approved the following transition rules for the education structure that was implemented in July 2018.

| Credit Prior to July 1, 2018 | Credit in Education Structure Implemented in July 2018 |
|------------------------------|--|
| VEE-Corporate Finance | VEE-Accounting and Finance |
| VEE-Economics | VEE-Economics |

3. The CAS Board of Directors approved the following transition rule for the education structure that was implemented in July 2018.

| Credit Prior to July 1, 2018 | Credit in Education Structure Implemented in July 2018 |
|--|--|
| Exam 3F-Models for Financial Economics | Exam 3F-Financial Economics |

4. The CAS Board of Directors approved the following transition rules for the education structure that was implemented in the Fall of 2015.

To receive credit for the new Exam S on Statistics and Probabilistic Models during the transition, the candidate must have credit for Exams ST and LC⁺ and the VEE-Applied Statistical Methods educational requirement.

At the time of transition, if a candidate has credit for either Exam ST or Exam LC, but not both, the candidate will be allowed to take just the exam for which he or she is missing credit in order to obtain partial credit for the new exam. This option will be available for a transition period of two sittings, i.e., Fall 2015 and Spring 2016.

Credit for the VEE-Applied Statistical Methods educational requirement will also be accepted for those candidates who complete it by August 31, 2016. If the candidate has not completed Exam ST, Exam LC, and the VEE-Applied Statistical Methods educational requirement by this date, the candidate will need to pass the full version of Exam S to receive credit.



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Candidates with credit for neither Exam ST nor Exam LC on August 31, 2015 will not be permitted to sit for Exam ST or Exam LC during the transition period and will need to pass the full version of Exam S to receive credit.

The following table summarizes the above:

| Candidate Credit on August 31, 2015 | | | Action Required by August 31, 2016 to Earn Credit for new Exam S |
|-------------------------------------|---------|---------------------------------|--|
| Exam ST | Exam LC | VEE-Applied Statistical Methods | |
| x | X | x | Credit granted. No candidate action required. |
| x | X | | Complete VEE-Applied Statistical Methods. |
| x | | x | Pass Exam LC. |
| x | | | Pass Exam LC and complete VEE-Applied Statistical Methods. |
| | X | x | Pass Exam ST. |
| | X | | Pass Exam ST and complete VEE-Applied Statistical Methods. |
| | | x | Candidate must take full version of Exam S. |
| | | | Candidate must take full version of Exam S. |

†The CAS has also granted waivers for Exam LC to candidates who have:

- Passed SOA Exam MLC;
- Passed the Institute and Faculty of Actuaries (U.K.), Actuaries Institute (Australia), or Institute of Actuaries of India Subject CT5; or
- Passed the Actuarial Society of South Africa Course A203; or
- Received a waiver granted by the Canadian Institute of Actuaries University Accreditation Program.

For those candidates who have credit for Exam ST by August 31, 2015, the CAS will continue to grant the above Exam LC waivers through August 31, 2016.



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The CAS has approved the following transitional waiver policy for examinations sponsored by the Institute and Faculty of Actuaries (United Kingdom), Actuaries Institute (Australia), Actuarial Society of South Africa (ASSA), and the Institute of Actuaries of India. Credit will be granted for examinations passed or waived in accordance with examination equivalencies between the CAS syllabus and the syllabi of each of the aforementioned actuarial organizations. The CAS will not grant credit for examinations waived on account of academic records achieved in U.S. universities.

| Candidate Credit on August 31, 2015 | | Action Required by August 31, 2016 to Earn Credit for new Exam S |
|-------------------------------------|------------------------------------|--|
| CT5 or A203 | CT4 and CT6 or A202 and A204 | |
| x | x | Credit granted. No candidate action required. |
| x | | Pass CT4 and CT6 or A202 and A204. |
| | x | Pass CT5 or A203. |
| | | Candidate must take full version of Exam S. |

5. The CAS Board of Directors approved the following transition rules for the education structure that was implemented in January 2014:

| Credit in 2013* | Credit in Education Structure Implemented in 2014 |
|--|---|
| Exam 3L | Exams LC and ST |
| SOA Exam MLC | Exams LC and ST |
| *Note: Credit for Exam 3L or SOA Exam MLC must have been achieved through an examination administered prior to January 2014. | |

In addition, the CAS Board of Directors approved the following waiver that will continue beyond January 2014:

| Credit | Credit in Education Structure Implemented in 2014 |
|--------------|---|
| SOA Exam MLC | Exam LC |



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6. The CAS Board of Directors approved the following transition rules for the education structure that was implemented in January 2011:

| Credit in 2010 | Credit in Education Structure Implemented in 2011 |
|----------------|---|
| Exam 5 | Half of Exam 5 (section on Basic Techniques for Ratemaking)* and Online Course 1 |
| Exam 6 | Half of Exam 5 (section on Estimating Claim Liabilities)* and Exam 7 on Estimation of Policy Liabilities, Insurance Company Valuation, and Enterprise Risk Management |
| Exam 7 | Nation-specific Exam 6 on Regulation and Financial Reporting and Online Course 2 |
| Exam 8 | Exam 9 on Financial Risk and Rate of Return |
| Exam 9 | Exam 8 on Advanced Ratemaking |

***Note:** To receive credit for the new Exam 5 on Basic Techniques for Ratemaking and Estimating Claim Liabilities, the candidate must have credit for both old Exams 5 and 6. At the time of transition, if a candidate has credit for only one of the required exams (either old Exam 5 or Exam 6), the candidate will be allowed to take just the part of the exam for which he or she is missing credit (i.e., either the Basic Techniques for Ratemaking section or the Estimating Claim Liabilities section of the new exam) in order to obtain credit for the new exam. This option will be available for a transition period of two sittings after the official conversion to the new education structure (i.e., May 2011 and May 2012). If the candidate does not have credit for both halves of Exam 5 at the end of the transition period, the candidate would have to pass the full version of Exam 5 to receive credit.

7. The CAS Board of Directors approved the following transition rule for the revision to Exam 3 that was implemented in January 2008:

| Credit in 2007 | Credit in Education Structure Implemented in 2008 |
|----------------|---|
| Exam 3 | Exams 3F and 3L |

8. The CAS Board of Directors approved the following transition rules for the revised education structure that was implemented in January 2005:

| Credit in 2004 | Credit in Education Structure Implemented in 2005 |
|----------------|---|
| Exam 1 | Exam 1 |
| Exam 2 | Exam 2, VEE-Economics, VEE-Corporate Finance |
| Exam 3 | Exam 3 [Exams 3F and 3L] |
| Exam 4 | Exam 4, VEE-Applied Statistical Methods |



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9. The following rules apply for candidates with unused credit from exams administered prior to 2000:

| Pre-2000 Credit | Credit in Education Structure Implemented in 2014 |
|---|---|
| Exam 2 (Probability & Statistics) and Exam 4B (Credibility Theory and Loss Distributions) | Exam ST |

| Pre-2000 Credit | Credit in Education Structure Implemented in 2011 |
|-----------------|---|
| Exam 3B | Online Course 1 |

| Pre-2000 Credit | Credit in Education Structure Implemented in 2005 |
|-----------------|---|
| Exam 3A | VEE-Applied Statistical Methods |
| Exam 4A | Exam 2 |
| Exam 4B | Exam 4 |
| Exam 5A | VEE-Economics |
| Exam 5B | VEE-Corporate Finance |

CAS Course on Professionalism

The CAS Course on Professionalism is designed to present candidates with real situations that contain ethical and professional issues for the actuary. Volunteer members of the CAS facilitate small-group discussions of actual case studies. Although grades are not given for the course, candidates must actively participate in order to receive credit. Successful completion of this course is required before a candidate can become a member of the Casualty Actuarial Society.

Candidates are urged to register for this course as soon as they are eligible. To be eligible for the CAS Course on Professionalism, the candidate should refer to the CAS website as follows:

- For the U.S. Course on Professionalism: <http://www.casact.org/admissions/index.cfm?fa=cop>
- For the Asia Course on Professionalism: <http://www.casact.org/admissions/index.cfm?fa=cop-asia>

Dates for the course will be posted on the [CAS Course on Professionalism](#) page of the CAS website. Each course has a limited number of participants; early registration is recommended. Facility information and course times are provided when registration for specific courses is announced.

Effective in 2019, all Canadian property and casualty (P&C) candidates will be required to have successfully completed the CIA Professionalism Workshop for qualification as an Associate of the CIA (ACIA) and will have to successfully complete the Practice Education Course (PEC) for qualification as a Fellow of the CIA (FCIA). Both courses will be required to receive credit for the CAS Course on Professionalism, a requirement to become an Associate of the CAS (ACAS).



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CAS Membership Requirements

Associateship

Candidates for Associateship in the Casualty Actuarial Society must fulfill the examination requirements by successful completion of, or credit for, Exams 1, 2, 3F, MAS-I, MAS-II, 5, and 6; credit for Online Courses C1 and C2 (designated CA1 and CA2 by The Institutes); credit through Validation by Educational Experience (VEE) for the required topics of accounting and finance, and economics; and successful completion of, or credit for, the CAS Course on Professionalism. Exam 6 is nation specific, and passage of any one of the CAS-approved nation-specific examinations fulfills the Associateship requirements.

After completing all the prescribed requirements, all prospective Associate members must submit a [formal application](#) to the Casualty Actuarial Society. The application form and list of application requirements are available on the CAS website in the [Join/Renew](#) section. Candidates must have completed all educational requirements prior to submitting an application for CAS membership.

After all requirements are met and a completed application form has been submitted to the CAS, each candidate's application will be reviewed by the CAS staff. Upon approval, the candidate will be admitted as an Associate of the Casualty Actuarial Society (ACAS). Candidates will be notified by letter from the CAS president. Members may indicate their designation as an Associate of the Casualty Actuarial Society by using the initials "ACAS" after their names only after they have received official notification of acceptance as an Associate from the CAS.

Fellowship

In addition to fulfilling all the requirements of Associateship, successful completion of, or credit for, all Fellowship examinations is required to fulfill the requirements for Fellowship and to be designated as a Fellow of the Casualty Actuarial Society (FCAS). Candidates who are admitted to the CAS as Fellows rather than Associates may indicate their designation as a Fellow of the Casualty Actuarial Society by using the initials "FCAS" after their names only after they have completed the application process as described above under Associateship and have received official notification of acceptance as a Fellow from the CAS. Associates who complete their Fellowship requirements may use the "FCAS" designation immediately following official notification of successful completion of all the Fellowship requirements as prescribed by the Board of Directors.

CERA Designation Requirements

Candidates for the CERA (Certified Enterprise Risk Analyst) designation must fulfill the educational requirements through successful completion of all CAS Associateship requirements, CAS Exams 7 and 9, the Enterprise Risk Management and Modeling Seminar (specifically designed for the CERA designation), and Exam SP9 of the Institute and Faculty of Actuaries (U.K.).

Candidates should submit their registration for Institute and Faculty of Actuaries (U.K.) Exam SP9 to the CAS.

After completing all the prescribed requirements, all prospective CERA designees must submit a formal application to the Casualty Actuarial Society. The application form will be available in the CERA section of the CAS website (<http://www.casact.org/cera/>). Candidates must have completed all educational requirements prior to submitting an application for the CERA designation.

After all requirements are met and a completed application has been submitted to the CAS, each candidate is voted on by the CAS Executive Council and then submitted to the international Treaty Board for the CERA global credential for approval. Upon approval, the candidate will be granted the CERA designation. CERA designees may indicate their designation by using the initials "CERA" after their names only after they have received official notification from the CAS.



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Waiver of Examinations

Basic Education Waiver Policy for Actuarial Examinations

The CAS's **Basic Education Waiver Policy** addresses the extent to which the CAS will grant waivers of its basic education requirements including Exams 1, 2, and 3F; Online Courses 1 and 2; Course on Professionalism; and Validation by Educational Experience requirements, or their equivalents as defined by the Executive Council.

The Board of Directors agrees that an exam waiver should be considered for verified educational accomplishments, e.g., exams or university courses, required by another actuarial organization that substantially meet the learning objectives of a particular CAS exam with reasonably equivalent rigor and level of mastery of the material. The Board agrees that the alternative should not be required to cover every learning objective that is covered in the CAS syllabus for the particular exam in order to consider a waiver and that other learning objectives covered by the alternative may be considered as substitutes.

In addition to actuarial exam requirements, the CAS may grant waivers for other basic education requirements provided that the educational experience is deemed equivalent in subject matter coverage and depth. For example, the CAS may accept a professionalism course offered by another actuarial organization provided that it is deemed equivalent to the CAS Course on Professionalism or the Executive Council provides a supplement to address any significant CAS requirement that may be lacking. Other examples where CAS requirements may be waived include Online Courses or Validation by Educational Experience requirements. In general, the CAS will not grant waivers for its upper-level exams, i.e., Exams 5 through 9.

The CAS will not grant waiver of all or any portion of its examination requirements for work experience or contribution to actuarial literature.

Under this Policy, the granting of waivers by the Executive Council will be based on the recommendation of the vice president-admissions.



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Canadian Institute of Actuaries

The CAS recognizes the exam waivers granted by the Canadian Institute of Actuaries University Accreditation Program for CAS Exams 1, 2 and 3F, and under previous education structures for CAS Exam 4 (see below). The CAS will only grant waivers for CIA UAP exam credits that were awarded based on work at universities in Canada. The list of candidates granted waivers by the CIA is provided to the CAS following the end of a semester. The CAS automatically updates its records. No further action is required of candidates.

Note:

- For Exam 1, starting with courses given in summer of 2019, the CIA UAP will recognize courses completed with a minimum grade requirement at many of the 11 accredited universities in Canada.
- Under previous education structures, the CAS recognized the exam waivers for CAS Exams 3L and LC.
- If a candidate has been granted a waiver for CAS Exam 4 under the University Accreditation Program through course work completed by 12/31/2018, then they will receive credit for CAS Exam 4 and subsequently CAS Exam MAS-II.

Starting in 2019, a candidate completing **both** the CIA Professionalism Workshop and the Practice Education Course (PEC) will receive credit for the CAS Course on Professionalism.

China Association of Actuaries

The CAS recognizes the preliminary examinations sponsored by the China Association of Actuaries (CAA). Credit will be granted for examinations passed or waived in accordance with examination equivalencies between the CAS syllabus and the syllabi of the China Association of Actuaries.

The CAS will not grant credit for examinations waived on account of academic records achieved in U.S. universities, nor for credit granted to candidates not qualifying directly in obtaining membership through the normal qualification/examination process.

Credit will not be given to Fellows of the CAA who have attained their designation through mutual recognition rather than through the organization’s standard credentialing process. Fellows by mutual recognition should pursue examination waivers based on their original credentials.

The CAS has approved the following waiver policy:

| CAA Exam | Waiver Granted for CAS Exam/Educational Experience |
|----------|--|
| A1 | Exam 1 |
| A2 | Exam 2 |
| A3 | Exam MAS-I |
| A4 | VEE-Economics |
| A7 | VEE-Accounting and Finance |

Note: Waivers granted under the previous “cohort” policy will not be revoked.



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Institute and Faculty of Actuaries (U.K.), Actuaries Institute (Australia), Actuarial Society of South Africa (ASSA), and Institute of Actuaries of India Examinations

The CAS recognizes some of the examinations sponsored by the Institute and Faculty of Actuaries (United Kingdom), Actuaries Institute (Australia), Actuarial Society of South Africa (ASSA), and the Institute of Actuaries of India. Credit will be granted for examinations passed or waived in accordance with examination equivalencies between the CAS syllabus and the syllabi of each of the aforementioned actuarial organizations.

The CAS will not grant credit for examinations waived on account of academic records achieved in U.S. universities, nor for credit granted to candidates not qualifying directly in obtaining membership through the normal qualification/examination process.

Credit will not be given to Fellows of these actuarial organizations who have attained their designation through mutual recognition rather than through the organization’s standard credentialing process. Fellows by mutual recognition should pursue examination waivers based on their original credentials.

The CAS has approved the following waiver policy:

| Subject of the Institute and Faculty of Actuaries (U.K.), Actuaries Institute (Australia), and Institute of Actuaries of India | Subject of the Actuarial Society of South Africa | Waiver Granted for CAS Exam/Educational Experience |
|---|--|---|
| CT2 or CB1 | A103 or A113 | VEE-Accounting and Finance |
| CT7 or CB2 | A102 or A112 | VEE-Economics |
| CT3 or CS1 | A101 or A111 | Exam 1 |
| CT1 or CM1 | A201 or A211 | Exam 2 |
| CT8 or CM2 | A205 or A214 | Exam 3F |
| CT3, CT4, and CT6 (passed after 9/1/2016) or CS1 and CS2 | A101, A202, and A204 (passed after 9/1/2016) or A111 and A212 | Exam MAS-I |



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Society of Actuaries

The CAS recognized the SOA exams listed in the chart below. Candidates who check the “Property and Casualty” field on their preliminary exam application will have the results of their exams automatically updated in the CAS candidate database. Candidates who did not check the “Property and Casualty” field can have their exam results verified and updated in the CAS candidate database by completing the [online form](#).

The CAS recognizes the following exams and the transition rules adopted by the SOA for the changes to their examinations in 2017:

| SOA Exam | Waiver Granted for CAS Exam |
|---|-----------------------------|
| P (Probability) | 1 |
| FM (Financial Mathematics) | 2 |
| MFE (Models for Financial Economics) | 3F (prior to 7/1/2018) |
| IFM (Investments and Financial Markets) | 3F (after 7/1/2018) |
| C (Construction of Actuarial Models) | 4 (prior to 7/1/2018) |

CAS Exam Requirements of SOA Members

An actuary who achieved Fellowship (FSA) or Associateship (ASA) of the SOA by completing the qualification requirements of the SOA, not solely in recognition of membership of another actuarial association, has CAS examination credit for:

- Exam 1
- Exam 2
- Exam 3F
- Exam 4 (prior to 7/1/2018)
- VEE-Accounting and Finance
- VEE-Economics

Therefore, the remaining exams/courses required of an ASA or FSA to achieve ACAS are:

- Online Course 1
- Online Course 2
- Exam MAS-I[†]
- Exam MAS-II^{††}
- Exam 5
- Exam 6
- CAS Course on Professionalism

[†] If a SOA Member completed SOA Exam MLC and VEE-Applied Statistics prior to 2014, credit for CAS Exam 5 would be granted under Transition Rules and subsequently Exam MAS-I.

^{††} If a SOA Member completed SOA Exam C prior to 7/1/2018, they will receive credit for CAS Exam 4 and subsequently Exam MAS-II.



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Important Notes:

- The syllabus material covered on CAS Exam 7 is required in addition to ACAS (with credit for current Exam 6-United States) to sign a Statement of Actuarial Opinion, NAIC Property and Casualty Annual Statement, in the United States.

See <https://www.casact.org/press/index.cfm?fa=viewArticle&articleID=4536> for more details.

- At this time, there is no waiver of any other CAS exams based on the SOA's General Insurance (GI) examination process.

Members of Other Actuarial Organizations

For individuals of actuarial organizations that are a member of the International Association of Actuaries (IAA), the CAS will grant waivers for its preliminary examinations/educational requirements as defined by the Executive Council (CAS Exams 1, 2, and 3F, and Validation by Educational Experience requirements) provided that the organization's individual member achieved the highest possible designation in that organization and has been practicing as a professional actuary for at least two years subsequent to obtaining the qualification.

Candidates of Other Actuarial Organizations

Actuarial organizations that are full members of the IAA and have an exam-based admissions requirement may request that the CAS grant waivers to its individual candidates for the CAS preliminary examinations/educational requirements—as a cohort for CAS Exams 1, 2, and 3F, and Validation by Educational Experience requirements—based on credit for their examinations that meet certain IAA requirements. An actuarial organization should contact the CAS Examinations Coordinator for the requirements to obtain this approval. All organization submissions are subject to the approval of the vice president-admissions and Executive Council.

Online Courses and VEE

Online Courses: The CAS will grant a waiver of CAS Online Course 1, Risk Management and Insurance Operations, to those who have the Chartered Property Casualty Underwriter (CPCU) designation.

Validation by Educational Experience: Unlike other CAS admissions requirements, the Validation by Educational Experience (VEE) requirements are generally fulfilled outside an actuarial organization. Candidates requesting waiver of any VEE requirements based on actuarial exams should follow the procedure for requesting a waiver. Most candidates, however, will fulfill the VEE requirements through approved educational experiences and must submit the Application for Validation by Educational Experience Credit. Details are provided in the VEE section of this *Syllabus*.

Waiver Request Process

For a waiver of a CAS admissions requirement that has an approved waiver policy stated above, candidates should present their request to the CAS Examinations Coordinator with appropriate evidence that demonstrates the passing of (or score on) the educational equivalent for which a waiver is requested.

Requests for waivers for CAS admissions requirements for which there currently is no approved waiver policy are considered on a case-by-case basis. Candidates must present their requests to the CAS Examinations Coordinator and include with their applications documented evidence that demonstrates the asserted equivalence, as well as the appropriate educational policy material of their local actuarial organization or appropriate educational organization. If such material is not included,



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the CAS Examinations Coordinator will request it from the candidates. The vice president-admissions will review all such requests and, when appropriate, recommend action to the Executive Council.

Please address all waiver requests to: CAS Examinations Coordinator, Casualty Actuarial Society, 4350 N. Fairfax Drive, Suite 250, Arlington, VA 22203, U.S.A.



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D. CAS Code of Professional Ethics for Candidates

The purpose of the Casualty Actuarial Society (CAS) Code of Professional Ethics for Candidates (Candidate Code) is to require actuarial candidates to adhere to the high standards of conduct, practice, and qualifications of the actuarial profession, thereby supporting the actuarial profession in fulfilling its responsibility to the public. An actuarial candidate shall comply with the Candidate Code. An actuarial candidate who commits a material violation of the provisions of the Candidate Code shall be subject to the counseling and discipline procedures of the CAS.

“Actuarial candidates” are those persons who have registered for a CAS specific exam but have yet to fulfill all of the requirements for admission into the CAS. In situations where actuarial candidates perform actuarial work, their “principal” is defined as their client or employer. “Actuarial services” are professional services provided to a principal by an individual acting in the capacity of an actuary. Such services include the rendering of advice, recommendations, findings, or opinions based upon actuarial considerations.

Rule 1: An actuarial candidate shall act honestly, with integrity and competence, to uphold the reputation of the actuarial profession.

Rule 2: An actuarial candidate shall not engage in any professional conduct involving dishonesty, fraud, deceit, or misrepresentation or commit any act that reflects adversely on the actuarial profession.

Rule 3: An actuarial candidate shall perform actuarial services with courtesy and professional respect and shall cooperate with others in the principal’s interest.

Rule 4: An actuarial candidate shall adhere to the CAS Policy on Examination Discipline.

Rule 5: Actuarial candidates are not authorized to use membership designations of the CAS until they are admitted to membership by the CAS Executive Council.

Rule 6: An actuarial candidate shall not disclose to another party any confidential information unless authorized to do so by the principal or required to do so by law, statute, or regulation. Confidential information includes information of a proprietary nature and information that is legally restricted from circulation.

Rule 7: An actuarial candidate shall respond promptly, truthfully, and fully to any request for information by, and cooperate fully with, appropriate counseling and disciplinary body of the CAS in connection with any disciplinary, counseling or other proceeding of such body relating to the Candidate Code. The actuarial candidate’s responsibility to respond shall be subject to applicable restrictions listed in Rule 6 and those imposed by law, statute, or regulation.

(The CAS Board of Directors approved the code above on November 12, 2006, effective with the Spring 2008 exam sitting.)

A copy of the Casualty Actuarial Society [Rules of Procedure for Disciplinary Actions Involving Candidates](#) is available on the CAS website.



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STUDY RESOURCES

Study and Exam Techniques

Candidates may want to review various articles previously published in *Future Fellows*. The articles can be found through the link titled [Helpful Future Fellows Articles](#) in the Study Tips, Tools, and Past Pass Marks section of the individual Examination pages under the Exams & Admissions section of the CAS website. These articles provide insight into the examination process. In reviewing these past articles, candidates should keep in mind that examination processes have changed over time.

Syllabus Updates

Occasionally, the course of reading for an examination may be changed after publication of the exam's syllabus. Candidates may review [syllabus updates](#) on the Exams & Admissions section of the CAS website for changes to the individual examination syllabi.

Study Notes for CAS-Administered Examinations

Official Study Notes are published to help candidates prepare for the examinations. In some instances, Study Notes are the principal materials for study; in others, they are designed to coordinate the subject matter for the candidate or to complement other readings. Study Notes may be downloaded at no charge from the specific exam syllabus webpage.

Study Kits for CAS-Administered Examinations

The Study Kit contains required readings not owned by the CAS but for which the CAS has been granted permission to include in the Study Kit. Generally, Study Kits will be available in mid-December for the following April/May examinations and by mid-June for the following October/November examinations. Study Kits may be purchased from the [CAS Online Store](#); there are **NO RETURNS** and **NO REFUNDS**.

Online Publications for CAS-Administered Examinations

All readings that are denoted as Online Publications (OP) will be available at no charge on a webpage for each examination titled Complete Online Text References. A link to this webpage is found in the Syllabus section of the individual examination page under the Exams & Admissions section of the CAS website.

Online Courses 1/CA1 and 2/CA2

All required educational content for Online Courses 1/CA1 and 2/CA2 is provided in the online courses themselves.



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Sample Examination Questions

Preliminary Exams

Sample examination questions for Exams 1, 2, and 3F may be available from the sponsoring organizations.

CAS-Administered Exams

Starting with the Fall 2020 exam administration, the CAS no longer publishes the examinations.

All past exams and Examiner's Reports, prior to the Fall 2020 exam administration, will be available to candidates for study purposes, providing a significant number of problems to work through for existing syllabus material (see Past CAS-Administered Examinations, below). As new material is added to the syllabus, the CAS will publish sample questions and answers to assist candidates in understanding how the new material may be tested on an exam.

Sample questions for Exams MAS-I, MAS-II, and 5 through 9 are available on the [Pearson VUE website](#).

Past CAS-Administered Examinations

In referring to previously administered exams, candidates should keep in mind that the questions were based on the Learning Objectives in effect for that particular examination and may not reflect the current Learning Objectives. Candidates may also expect future examinations to vary somewhat as to the proportions of question styles and subjects. New forms of questions may appear from time to time, and the total number of questions may vary from one exam sitting to the next.

Material for *examinations administered prior to Fall 2020* can be found as follows:

Exams MAS-I and MAS-II

Copies of Exams MAS-I and MAS-II administered before Fall 2020 are available at no charge in the [Past Exams and Pass Marks](#) section of the CAS website. Candidates can also look to previous CAS-administered Exams 3L, LC, ST, and S for questions/answers for Learning Objectives that overlap with Exams MAS-I and MAS-II.

[Sample questions/answers for MAS-I](#) and [sample questions/answers for MAS-II](#) along with a [case study for Exam MAS-II](#) are available in the Study Tips, Tools, and Past Pass Marks section of the CAS website.

Copies of past exams including answer keys for Exams 3L, LC, ST, and S are available at no charge in the [Past Exams and Pass Marks](#) section of the CAS website. While the last exam administration was October 2013 for Exam 3L, May 2016 for Exams LC and ST, and October 2017 for Exam S, copies of past Exams 3L, LC, ST, and S are still provided to assist candidates in preparing for Exam MAS-I and MAS-II.

Exams 5 through 9

Copies of exams administered before Fall 2020 and the corresponding Examiner's Reports for Exams 5 through 9 are available at no charge in the [Past Exams and Pass Marks](#) section of the CAS website. The Examiner's Report includes narratives for each question describing where points were achieved and where the candidates commonly missed points.



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E-Mail Study Groups

The CAS has e-mail study groups available on the [Online Community](#) for those preparing for CAS Examinations. To join a CAS e-mail study group, click on the corresponding community and then click “Join” on the right sidebar. Please direct any related questions to Sophie Uy, CAS IT and Online Services Coordinator, at suy@casact.org.

CAS Library

The CAS Library has a limited number of the books marked with a bold **B** in this *Syllabus* available for loan. Candidates registered for CAS Examinations and all members of the CAS have access to the library. The CAS Library is located at the CAS Office in Arlington, Virginia. Candidates who reside in East Asia should contact the Casualty Actuarial Society (Hong Kong Office) to borrow CAS Library books available at that location.

Books and manuals may be withdrawn from the library for a period of one month without charge. In general, not more than two references may be in the hands of one borrower at a time.

Requests for library books may be sent via e-mail or in writing to the addresses below. The request must include the borrower’s complete name, address, and telephone number as well as the complete title(s) and author(s) of the requested book(s).

| For Candidates Outside East Asia: | For Candidates in East Asia: |
|---|--|
| Casualty Actuarial Society Attention: Library Service 4350 N. Fairfax Drive, Suite 250 Arlington, Virginia 22203 E-mail: library@casact.org | Joint Actuaries Office — Hong Kong Casualty Actuarial Society (Hong Kong Office) Attention: Michael Chou 1803 Tower One, Lippo Centre 89 Queensway, Admiralty Hong Kong E-mail: hongkonglibrary@casact.org |

Candidates are responsible for the cost of returning library books. Books must be returned to the office from which they were borrowed. The CAS ships the requested book(s) in the United States via United Parcel Service (UPS) and internationally via airmail. Due to delays in the mail system, the CAS requires all shipments of books returned to the CAS Office to be shipped via UPS, FedEx, or an equivalent carrier with tracking capabilities. Please do not use the postal service. Overdue books will be charged at a cost of 25¢ per day.

Books that are not available through the CAS Library may be obtained by contacting the organizations listed in the Publishers and Distributors section at the end of each examination syllabus section.