



**Actuarial Society of the Philippines**

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**ACTUARIAL SOCIETY OF THE PHILIPPINES**

**JUNE 2011 EXAMINATION CATALOGUE**

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## **I. The Actuarial Society of the Philippines**

### **Mission Statement**

We are the internationally recognized organization of actuarial professionals in the Philippines. We are committed to the standards of our profession, upholding the highest levels of integrity and competence.

As acknowledged experts in assessing risks and measuring their financial outcomes, we take pride in providing technical services to our stakeholders. As responsible members of society, we take a stand on issues that affect the public good.

We are a caring organization that provides a forum for the professional growth, social development and self-regulation of our members. We value mentoring as necessary to strengthen our Society and to continuously upgrade the expertise of our members.

We shall responsibly carry out these affirmations to foster the important role of the Actuarial Society of the Philippines in the larger global community.

### **Principles Underlying the Examination System**

The Actuarial Society of the Philippines administers a series of self-study courses and examinations, in the fields of application of actuarial science, leading to Associateship and Fellowship qualifications. The principles underlying the examination system are as follows:

- a. To provide the actuary with an understanding of fundamental mathematical concepts and how they are applied;
- b. To provide the actuary with an accurate picture of the socio-demographic, political, legal, and economic environments within which financial arrangements operate;
- c. To expose the actuary to a broad range of techniques, their applications and limitations;
- d. To expose the actuary to a broad range of relevant actuarial practice;
- e. To develop the actuary's sense of inquisitiveness so as to encourage exploration unto areas where traditional methods and practice do not appear to work effectively.

In the administration of the system, it is understood that both the course of readings as well as the manner of administering examinations will be continuously studied and revised, as necessary, in order to incorporate advances in technology and changes in the environment in which the actuary is expected to operate.

### **Requirements for Admission to the Society as an Associate**

- a. Who may be admitted. Any individual, at least 18 years of age, upon nomination by two Fellows of the Society in good standing, may be admitted after completing the Associateship education and examination requirements prescribed by the Board of Governors.
- b. When and how to apply. A candidate planning to seek admission to the Society should submit an Application for admission as Associate to the Membership Committee upon completion of the education and examination requirements for Associateship. The application form may be obtained from the Office of the Actuarial Society of the Philippines. The application for admission as Associate is subject to approval by the Board of Governors of the Society and by the majority vote of the Society.
- c. Associateship Education and Examination Requirements. To qualify for Associateship, the candidate should have completed the following requirements:

- The candidate should have passed Courses P, FM, M and C of the Society of Actuaries (SOA). These examinations should have been accredited by the ASP.
- The candidate should have satisfied Validation by Educational Experience (VEE) for three topics: Applied Statistics, Corporate Finance and Economics. Details on VEE are provided in Section VIII.
- The candidate should have attended the Associateship Admission Course given by the ASP. The Associateship Admission Course is described in Section IX.

### Requirements for Admission to the Society as a Fellow

- Who may be admitted. Any Associate of the Society, at least 21 years of age, upon nomination by two Fellows of the Society in good standing, may be admitted provided:
  - He/she is the holder of a university degree requiring at least 24 units of actuarial-related subjects;
  - He/she has worked in the Philippines in the actuarial field for at least one year;
  - He/she has completed the fellowship education and examination requirements, the Fellowship Admission Session, and any additional requirements prescribed by the Board of Governors. The Fellowship Admission Session is described in Section VI of this catalogue.
- When and how to apply. A candidate planning to seek admission as a Fellow of the Society should submit an Application for Admission as Fellow to the Membership Committee upon completion of the examination and other requirements for Fellowship. The Application form may be obtained from the Office of the Actuarial Society of the Philippines. The application for admission as Fellow is subject to approval by the Board of Governors of the Society and by the majority vote of the Society.
- Fellowship Examinations. The required course of reading for Fellowship is provided in the section on Course of Reading in this catalogue.

## II. General Information Regarding Examinations

### Associateship Examinations

SOA Exam P	Probability
SOA Exam FM	Financial Mathematics
SOA Exam M	Actuarial Models – Financial Economics and Life Contingencies Segments
SOA Exam C	Construction and Evaluation of Actuarial Models

### Fellowship Examinations

Course No.	Topic
Course 1	Development, Pricing And Distribution Of Life Insurance, Preneed And Annuity Products
Course 2	Investments And Finance, Valuation Of Assets And Liabilities, Insurance And Pre-Need Accounting
Course 3	Solvency And Risk Management For Insurance And Preneed Companies, Selection Of Risks, Reinsurance, Law And Taxation Of Insurance And Pre Need Companies
Course 4	Social Insurance, Group Insurance And Health Care Systems And Employee Benefit Plans

## Examinations, Dates, Time, Location

Fellowship examinations will be held at the IIAP Office, 26th/F, Ayala-FGU Life Building on Ayala Avenue, Makati City.

Course No.	Topic	No. of Hours	Date & Time
Course 1	Development, Pricing And Distribution Of Life Insurance, Preneed And Annuity Products	6	June 6 (Mon) 9:00 am –12:00 nn 1:30 pm – 4:30 pm
Course 3	Solvency And Risk Management For Insurance And Preneed Companies, Selection Of Risks, Reinsurance, Law And Taxation Of Insurance And Pre Need Companies	6	June 10 (Fri) 9:00 am –12:00 nn 1:30 pm – 4:30 pm
Course 2	Investments And Finance, Valuation Of Assets And Liabilities, Insurance And Pre-Need Accounting	6	Dec 5 (Mon) 9:00 am –12:00 nn 1:30 pm – 4:30 pm
Course 4	Social Insurance, Group Insurance And Health Care Systems And Employee Benefit Plans	6	Dec 9 (Fri) 9:00 am –12:00 nn 1:30 pm – 4:30 pm

## Accreditation Procedure for Associateship Examinations

### I. Accreditation for Active Examinee

To qualify as an Active Examinee, the candidate should have an updated transcript of examinations.

The application periods for regular accreditation are:

- July 1 to December 30 for the May SOA examinations
- January 1 to June 30 for the November SOA examinations

The following documents must be submitted to the ASP Examination Committee under this case:

- Duly accomplished Accreditation Form
- Accreditation Fee of P1,200 per examination
- Original Copy of SOA Examination Results ("white slip"). This will be returned to the student along with the ASP Examination Committee's letter of accreditation.

## II. Updating to Active Status

If an SOA exam is not accredited on time, the candidate should request the SOA for a confirmation of all exams in order to return to active status.

The following documents must be submitted to the ASP Examination Committee under this case:

- Duly accomplished Accreditation Form
- Processing Fee of P 1,200 per examination
- Letter of Confirmation of Exams Passed from the SOA

## III. Fellowship Examinations

### Form of Examinations

The Fellowship Examinations are given in written-answer form.

### Applications to Write Examinations and Deadlines for Submission

The application form for the 2011 Fellowship Examinations is contained at the end of this Catalogue. The said application form can be photocopied as long as the original signature of the Applicant will appear in the form that will be submitted to the Society. Application Forms are also available at the office of the Actuarial Society of the Philippines.

The Application Form and the required examination fee should be submitted on or before May 3, 2011 (Tuesday) for the June Examinations, and November 2, 2011 (Wednesday) for the December Examinations.

Candidates must sign the following statement that appears on the application:

"I have read the rules and regulations concerning the examination(s) for which I am applying, and agree to be bound thereby."

Unsigned applications are not valid and will be returned to the applicant. Applicant will not be registered for an examination unless the Society has an original signed application for the examinations applied for.

### Examination Fees

The regular examination fees for 2011 are as follow:

Course No.	Topic	No. of Hours	Exam Fee
Course 1	Development, Pricing And Distribution Of Life Insurance, Preneed And Annuity Products	6	Php7,200
Course 3	Solvency And Risk Management For Insurance And Preneed Companies, Selection Of Risks, Reinsurance, Law And Taxation Of Insurance And Pre Need Companies	6	Php7,200
Course 2	Investments And Finance, Valuation Of Assets And Liabilities, Insurance And Pre-Need Accounting	6	Php7,200
Course 4	Social Insurance, Group Insurance And Health Care Systems And Employee Benefit Plans	6	Php7,200

A late charge of 50% of the examination fee will be assessed for late applicants. Fees should be remitted by check, draft or money order and made payable to the Actuarial Society of the Philippines. **The Society will bear no responsibility for any loss of payments while in transit. Payment in cash is discouraged.**

### **Refunds, Transfer of Fees**

In no case will examination fees be refunded. Examinees who do not sit for exams for which they have enrolled will forfeit their fees.

However, examinees who find that they cannot sit for an exam for which they have enrolled as a result of illness or other legitimate reasons may request that their fees be transferred and considered as deposit towards the fees for a future examination.

A transfer charge of P100 will be assessed for each course. The deposit may be transferred to an examination to be held no later than one year after the original examination date. Requests must be in writing and must be received by the society no later than two weeks after the scheduled examination date. Requests received after this time will not be considered.

### **Ticket of Admission/Instructions to Candidates**

The Examination Committee will mail each candidate a Ticket of Admission indicating the examination(s) for which an application has been submitted. Tickets of Admission will be mailed within two weeks before the date of the examination, except in the case of late registrants.

The ticket will contain the candidate's examination number which is to be written by the candidate on the examination(s) for identification purposes. The candidate should bring the ticket to the examination(s).

A candidate who does not receive his ticket of admission one week prior to the examination date or whose ticket of admission contains incorrect information should notify the Examination Committee through the secretary of the Actuarial Society of the Philippines, Ms. Anne Macasaet, at telephone number 892-0693.

### **Requirements for Admission to Test Center**

In order to be admitted into a test center, a candidate must show his ticket of admission and positive identification. The candidate must present valid identification with both a signature and a photograph (Driver's license, school ID, office ID, passport) or two identification cards with signatures; at least one form should contain a physical description. Each candidate will be required to sign in upon admission to the test center. A candidate who fails to meet the requirements for positive identification or refuses to provide a signature upon entering the test center will not be permitted to write the examination.

### **Signatures on Exam Answer Sheets and Envelopes**

Candidates are required to sign their answer sheets or envelopes. **Candidates who turn in examinations without signing the statement on the answer sheet or envelope will not have the examination graded.** The statement to be signed reads:

**"I have neither given nor received assistance of any kind on this examination. I understand the examination is confidential and will not disclose its contents. This examination is being written with the understanding that if the answer sheet/envelope is returned unsigned, it will not be graded."**

Envelopes for written-answer examinations will be opened by the Examination Committee secretariat; examiners and graders will receive information identifying candidates only by number.

## **Use of Calculators and Other Assistance in Writing Examinations**

A candidate may not communicate with or obtain assistance from any other candidate during the examination nor may any books, papers or typewriters be brought into the examination room. Only the type of calculators described in the next paragraph may be brought into the examination room.

Calculators are allowed on all examinations. Only a calculator with the four basic functions, one memory, the square root and % function may be used. Only calculators that have keys that are silent when pressed will be allowed. No calculator which produces any sort of noise while in use will be allowed. Calculators should be battery-powered. The Society will not be responsible for providing power outlets nor will the Society be able to guarantee the required intensity of indoor lighting to power a solar-powered calculator. Questions will be set assuming access to a calculator of the approved type.

Examination supervisors are authorized to provide a substitute calculator, if available, in the event that a candidate's calculator malfunctions during the examination. However, supervisors will not provide a calculator for persons who neglect to bring a calculator of the approved type to the examination.

Persons using a calculator that is not allowed will have their examinations disqualified and their papers will not be graded.

## **Examination Results**

Candidates receive individual statements of their examination results, usually within six to eight weeks after the examination date. A list of passing candidate numbers for that examination part will be available from the ASP Secretariat at this time. Several weeks later, a list of the names of passing candidates for that examination will be available from the committee.

The individual grades will be reported on a scale of 0 to 10. Passing grades will range from 6 to 10; failing grades from 0 to 5. In this scale, the interval is 10 percent of the score required to pass; for example, a grade of 5 means failing with a score at least 90% but less than 100% of the score required to pass. A grade of 0 does not necessarily mean that a candidate received no points, but rather that the candidate's score was less than 50% of the score required to pass.

Shortly after results are sent to candidates, lists of the names of all passing candidates are announced to Society members.

Examination sheets are not returned to candidates for any Society examination.

A "hotline" service begins once grades have been released and will be active for a week. A candidate may call the hotline and access his exam results by providing his candidate number. The system will provide only pass/fail results; no other information will be available. This hotline will not be in service at any other time during the year. The phone number and the person to call will be provided with your ticket of admission.

## **Lost Examinations**

If a completed examination sheet is inadvertently lost or destroyed, the examination fee will be refunded. The Society assumes no other obligation and candidates must take all examinations subject to this understanding.

## **Defective Questions**

Occasionally, through error or because of varying interpretations, a question appearing on the examination may be found to be defective. Examples of defects include: material typographical errors, ambiguities, and questions with test material not covered in the course of reading. Candidates who believe that a question is defective should write to the Examination Committee within two weeks of the examination date. The letter should explain in detail why the candidate thinks the question is defective. The Examination Committee will investigate all questions brought to its attention in this way, and may



make allowance in the grading process, if appropriate. The Examination Committee may make use of the candidate's examination books to determine whether their scores should be adjusted. Correspondence not reaching the Society within two weeks after the examination date will not be considered by the Committee.

### **Confidentiality of Examination Records**

The fact that a candidate has passed an examination for credit with the Actuarial Society of the Philippines is considered public knowledge. Any further information about the examinations taken or grades received by a candidate is available only to the candidate, to the Examination Committee Chairman and specific members as required for purposes of committee work. A candidate may, however, request in writing to the Society office that a designated person should receive such information.

### **Disciplinary Action**

Candidates must not give or receive assistance of any kind during the examination. Any cheating, any attempt to cheat, assisting therein, or engaging in such conduct as listed below are serious violations and will generally result in the candidate's paper being disqualified, and other disciplinary action as may be deemed appropriate. Examples (not a complete list) of actions by candidates which may lead to disciplinary action are:

- a) Gaining access to examination questions before the examination
- b) Using an unauthorized calculator
- c) Looking in the examination book before the signal to do so is given
- d) Looking at another candidate's paper
- e) Enabling another candidate to copy from one's paper
- f) Any communication with another candidate during the examination
- g) Disturbing other candidates during the examination
- h) Consulting any other person, any books or materials inside or outside of the examination room during the examination period
- i) Making any changes in the answer sheet or book after the time has expired
- j) Copying questions or answers to take from the examination room
- k) Taking an examination booklet from the examination room
- l) Taking an examination for another candidate
- m) Arranging to have another person take an exam for the candidate
- n) Disclosing the contents of an examination to another person
- o) Presenting false information on an examination application

The Examination Committee will pursue any evidence that a candidate has cheated or failed to follow examination rules, either in letter or in spirit. Any irregularity or suspected violation will be investigated. The candidate may be asked to attend, or be offered the opportunity to have, a hearing convened by the committee. When a violation is confirmed, disciplinary actions may include, but are not limited to, disqualification of the candidate's examination paper and a prohibition against writing Society examinations for a specified period.

The Actuarial Society's rules and regulations concerning examination administration, including disciplinary action, are composed of the information in this Catalogue, as well as the information in the Instructions to Candidates mailed with the Ticket of Admission, the information on the covers of examination booklets, and the material read by the supervisors at the beginning of each examination. 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 thereby."***

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

## **Correspondence**

Requests for application forms or other correspondence regarding examinations or other matters should be addressed to:

Actuarial Society of the Philippines  
Rm.819 Cityland 10 Tower 2  
Dela Costa St., Makati city

Telephone requests will not be entertained.

Request for application forms, catalogues or other correspondence regarding the Society of Actuaries Examinations should be addressed to:

Society of Actuaries  
Attention: Society of Actuaries Exam Dept.  
475 North Martingale Road  
Suite 800  
Schaumburg, Illinois 60173  
U.S.A.

## **IV. The Examination Committee**

### **Organizational Structure of the Examination Committee**

The examination program of the Actuarial Society of the Philippines is administered by its Examination Committee. Within this overall Committee, two types of units operate:

- a) The June and December examination subcommittees review the course of reading and recommend changes to the required texts and references, and are responsible for administering and grading the examinations.
- b) The secretariat of the Committee is responsible for handling the recordkeeping and correspondence functions of the committee.

### **Review and Development of Course of Reading**

The course of reading is regularly reviewed by the Education and Eligibility Council. Both short and long-term goals for improvement are developed.

Although every effort is made to choose material which is presented clearly and unambiguously, errors may occur occasionally. Candidates who believe they have found an error in any study material should notify the Examination Committee of the Society so that any necessary corrective action may be taken.

Candidates should be aware that the Society continuously reviews the entire examination program vis-à-vis its long-term organizational goals.

### **Development of Examinations**

Each examination is developed by the Fellows of the ASP who have been designated by the Board of Governors to serve as examiners for the season. The content of the examination is designed to test the candidate's knowledge of the subject matter as defined in the course Catalogue.

Every effort is made to ensure that the questions fall within the scope of the course of reading and that each question is answerable in the time allocated to it. Complete coverage of all parts of the course of reading is not practical for every examination every year, but the goal is to develop well-rounded

examinations containing representative, high-quality questions which test the candidate's knowledge of the most essential parts of the course of reading. The examiners deliberate to determine which topics are critical and should be tested for each course.

In fellowship examinations, the candidate's ability to integrate his knowledge of the course materials with 'real world type' situation is tested. Trick questions are deliberately avoided, and the wording of each question is considered carefully to eliminate possible ambiguities.

A review of all examination questions is conducted by the Committee prior to the examination dates to assure their quality. In addition, the Committee evaluates the level of difficulty of the examinations to ensure consistency with examinations during the previous years.

### **Grading Process**

Only the answer sheets determine the score. Marks on the examination booklet or the scratch paper will not be considered.

For written-answer questions, every effort is made to grade the answers according to completely objective standards. The anonymity of the candidates is fully preserved; subcommittee members see only a candidate number when grading an examination. Each examination subcommittee has a grading process to fit its own needs.

A subcommittee with a small number of papers to grade might work as follows:

One committee member would be assigned to grade each written-answer question. The grader starts with a grading outline which lists possible items that are relevant to the question and their numerical values set according to each item's importance.

The grader may give additional credit in recognition of a candidate's demonstrated overall grasp and understanding of the subject. All answers are measured against the grading outlines, to ensure that the same standards are applied to all candidates.

After grading the first few papers, the grader evaluates the grading outline in the light of responses. If there are additional items which deserve credit, the grader will then revise the grading outline and start over. Throughout the grading process, credit for items still not contained in the outline may be given.

After all papers have been graded, a conversion scale determines the score each candidate receives for that question.

Papers are retained for at most six months after the examinations to be available if questions or problems arise. After this, the papers are destroyed.

### **Determination of the Pass Mark**

The objective of the examinations is to identify candidates who, as a pre-requisite to admission in the Society as a fellow, demonstrate adequate knowledge of the course of reading, based on standards that are formulated and applied consistently from year to year.

The Committee sets a passing mark prior to the examinations. Candidates are not graded in competition with other candidates

## V. Suggestions for Candidates

### Order for Taking Examinations

There is no prescribed order for taking examinations. However, all Fellowship examinations are constructed assuming that candidates are familiar with the material in the required Associateship readings.

### Study Methods

Allocate sufficient time to cover each topic adequately. Allow for the length of the prescribed study material in your schedule. Maintain an interest in current developments. Knowledge of actual practice is often helpful. All material should be carefully studied.

Integrate material as you study. Compare programs, methods and so on. The more connections you can develop within the study material and between the study material and your other knowledge or experience, the keener your understanding and memory of the concepts presented will be.

Maintain contacts with other candidates and take advantage of the opportunity to discuss topics that you find difficult. Do not hesitate to consult established members of the profession in your own organization or elsewhere.

One good way to prepare for examinations is to pretend you are the examiner and to develop examination questions in order to gauge your understanding of the relative importance of the material presented.

### Classes and Seminars

Most candidates either study by themselves or with a group that they have formed for the purpose. Other options are available. Some universities offer courses that closely parallel the course of reading prescribed by the Society,

### Approaches to Writing Written-Answer Examinations

Written-answer questions are intended to elicit answers in essay and/or outline form. Numerical written-answer questions require extended numerical or formula solutions; the credit given is based not only on the correct results, but also on the steps used to derive these results.

Paper is provided at the examination room for your answers. You must take time to write legibly, since examiners can only give credit for what they can read.

Each written-answer question is assigned a specified number of points. The number of points indicates the relative weighting each question bears to the total examination and to the other questions, and suggests the relative time that you should spend on that question. Try to distribute the examination time over all questions and to limit consideration of any question to the time proportionately allotted to it. It will usually be more profitable to write at least a brief answer to a question for which you are relatively unprepared than to spend time refining an answer to a question on which you are well informed. No extra points are given for padding an answer.

At the time of the examination, read each question thoroughly. Before making any attempt to write out the answer, be sure to understand what is being asked and try to organize your intended answer. It is most important that you answer the question that is asked and avoid digressing to another subject. It may be helpful to write a brief outline before beginning the actual answer. Avoid repeating the question in your answer, as it will not add points to your score, and you may waste valuable time. You do not have to answer the questions in any particular order. Some candidates prefer to answer the questions in the order given, while others read over the entire page, warm up on a question that comes easily, and gradually work into the more challenging questions. However, your solutions/answers must be submitted in the order of the questions. **The subcommittee will not grade solutions which are not presented in the proper order.**

You may find it helpful to jot down on a piece of scratch paper ideas that come to mind concerning both answered and unanswered questions. You may answer questions in outline form provided the meaning is clear. Another acceptable technique is to use one sheet of paper for "advantages" and another for "disadvantages". This allows you to go back and forth from one page to the other, putting down items as they occur to you. Use as much answer paper as needed. An orderly presentation can do no harm, and additional pages may result in putting down further facts and considerations which earn additional credit.

If you feel that there is a better answer or approach than that indicated in the Course of Reading (e.g., because of recent changes in regulations), it is acceptable to write this answer, although you should state at the outset that your answer differs from the Course of Reading. Of course, if you can also indicate the answer or approach given by the Course of Reading, thus demonstrating to the individual examination committee that the assigned material was read and mastered, this may increase your credits. Once the maximum number of points on a question has been achieved, however, there is no advantage to adding more to an answer. Obscure interpretations should not be read into a question, for each question is designed to be straightforward. Try to cover all aspects of the question in the answer and include pertinent facts and details in the answer even if, based on practical experience, they seem obvious. However, including any facts and details not pertinent to the question will not earn any additional credit and will waste examination time. Do not enlarge upon any one point to the exclusion of others. Try to state both sides of a question where they are called for in an answer. If time permits, review all answers given.

Questions may cross subject lines. You can prepare for this by thoroughly understanding the interrelationship of the various subjects within each course.

Since each question is graded separately, each of your answers must be self-contained. An answer must not say, for example, "Part of my answer to question 1 is found in my answer to question 3." Also, **EACH ANSWER MUST BE STARTED ON A NEW SHEET OF PAPER.**

## **VI. Course of Reading**

### **Introduction, Course of Reading**

The following Course of Reading is a guide to those preparing for the examinations. The objective of the examinations is to test the candidates' ability to grasp the underlying principles and apply them in the solution of problems.

Every effort is made to keep the Course of Reading up to date. However, legislative or regulatory changes which would affect the answers to examination questions sometimes occur after the setting of the final Course of Reading. It would be useful to state also how the answer differs from the Course of Reading, if time permits.

If a paper or article from an actuarial or insurance publication is recommended for study, candidates should additionally study any discussions of the papers or articles published in the same volume, unless the Course of Reading or study notes indicates otherwise.

Candidates are generally expected to obtain their own copies of papers or articles referenced in the Course of Reading which are not study notes. However, if a candidate cannot locate a particular reference, the Society library can provide a copy of the required paper or article upon request. There is a fee for this service.

References to publications of the Actuarial Society of the Philippines, the Society of Actuaries of North America, the Conference of Consulting Actuaries, the Canadian Institute of Actuaries, American Academy of Actuaries and the Actuarial Standards Board are abbreviated in the Course of Reading as follows:

PASP Proceedings, Actuarial Society of the Philippines

TSA Transactions, Society of Actuaries of North America

RTSA Reports Transactions, Society of Actuaries, Reports of Mortality and Morbidity Experience

RSA Record, Society of Actuaries

PCCA Proceedings, Conference of Consulting Actuaries

PCIA Proceeding, Canadian Institute of Actuaries

AAA American Academy of Actuaries

ASB Actuarial Standards Board

Roman numerals indicate the volume and Arabic numbers indicate the pages of the reference, except in the case of RSA, in which Arabic numbers are used throughout.

**Occasionally, it may be necessary to change the Course of Reading for an examination after the publication of this Catalog. Such a change will be announced in a special notice to be mailed with your Ticket of Admission. If there is any conflict between information contained in this Catalog and that announced with the Ticket of Admission, the latter will govern.**

**A "#" indicates a change in the Course of Reading such as new or revised study material, a new edition of a textbook, a shift of study material from one examination to another, or different chapter references from a previously used textbook.**

**Please note that the included Courses of Reading for ASP Courses 2 & 4 in this catalog are currently under review and are only tentative.**

**For the examinees' convenience, the known public on-line sources of some materials are included. Please inform the Society if there are any copyright restrictions in downloading the said materials.**

## 2011 FELLOWSHIP COURSES

### ASP COURSE 1

#### DEVELOPMENT, PRICING AND DISTRIBUTION OF LIFE INSURANCE, PRENEED AND ANNUITY PRODUCTS

##### A. Overview of Financial Products

Topics include:

1. The financial life cycle
2. Types of financial products
  - a. Money or transaction services, short-term savings products and borrowing instruments
  - b. Life, health, disability and unemployment insurance
  - c. Pre-need products
  - d. Retirement programs
  - e. General insurance
  - f. Long-term savings products
  - g. Other sources of financial security

##### Required Readings:

- Bellis, C., Shepherd, J., and Lyon, R., 2003. *Understanding Actuarial Management*, Chapter 5, Sections 5.1 to 5.7
- Atkinson, David F.S.A. and Dallas, James F.S.A. *Life Insurance Products and Finance*, The Society of Actuaries, 2000. Schaumburg, Illinois. Chapter 1
- Roa, Emeterio. *PreNeed: Past, Present and Future*, Actuarial Society of the Philippines Proceedings, 1998.
- Josef, Aida. *The Actuary in PreNeed Plans*. ASP Proceedings Volume XIV, pages 124-131, including Discussion.

##### B. Product Development and Design

Topics include the stages of the development process, the impact of changing economic conditions and marketing environments on product design, applicable legal and taxation principles, communicating results, and pricing design issues associated with various products and benefits. The candidate should be able to:

1. Understand the stages of the product development process.
2. Apply actuarial non-forfeiture principles and practices to the determination of non-forfeiture methodology, options, and values.
3. Communicate interim and ultimate results of product designs to internal and external constituencies, incorporating professional requirements and standards.
4. For life insurance, pre-need and annuity product groups:
  - a. Recognize the standard and unique features of the products.
  - b. Identify the risks involved in offering such products and coverages.
  - c. Manage the risks so identified.

5. Life insurance products include ordinary, term, universal, and variable life. Pre-need products include memorial, pension and education. Annuity products include deferred, immediate, and variable annuity basic products and advanced annuity features.

Required Readings:

- Bellis, C., Shepherd, J., and Lyon, R., 2003. *Understanding Actuarial Management: The Actuarial Control Cycle*, Institute of Actuaries of Australia. Chapter 7
- Atkinson, David F.S.A. and Dallas, James F.S.A. *Life Insurance Products and Finance*, The Society of Actuaries, 2000. Schaumburg, Illinois. Chapter 2
- Chan, Benjamin F.S.A. *Unit-Linked Insurance: A General Report*, 2001 Proceedings Volume XXIII. 42<sup>nd</sup> ASP Annual Convention, 2001
- Jeanne Daharsh and Van Beach, 2006 *Marketing and Distribution Section, Product Implementation Survey, Executive Summary March 2007*  
<http://www.soa.org/files/pdf/mad-prod-implementation-survey.pdf>
- Insurance Commission. *Circular 27-2005: Expeditious Approval of Traditional Life Insurance Products. Pages 1-3, Annex A, C, XII-A, XII-B*  
<http://www.insurance.gov.ph/@dmin/upload/reports/circular27.pdf>

### C. Pricing

Topics include the selection of pricing assumptions, profit goals and policyholder equity, models used to measure profitability and to determine gross premiums, dividends and non-guaranteed elements. The candidate should be able to:

1. Select assumptions needed to price individual life insurance and annuity products (mortality, investment return, expenses, and lapses/withdrawal/loans/terminations), and understand how such assumptions are developed.
2. Understand shareholder expectations and the principles of policyholder equity, and their impact on the development of profit goals and the pricing process.
3. Develop and use models to compute gross premiums, compute dividends, set non-guaranteed elements, and measure the profitability of individual life insurance, preneed and annuity products.
4. Apply alternative pricing strategies and understand the issues involved in changing prices.

Required Readings:

- Bellis, C., Shepherd, J., and Lyon, R., 2003. *Understanding Actuarial Management: The Actuarial Control Cycle*, Institute of Actuaries of Australia. Chapter 11
- Atkinson, David F.S.A. and Dallas, James F.S.A. *Life Insurance Products and Finance*, The Society of Actuaries, 2000. Schaumburg, Illinois. Chapters 3, 5 - 6, 11, 15
- Gonzales III, A. *Actuarial Models and Formulas for Pre-Need*. Parts 1 to 3 excluding Appendix on p. 20 and 21
- *Insurance Code of the Philippines*, Chapter 3 Title 9 Sections 226, 227 (e) - (f) and Title 10  
<http://www.insurance.gov.ph/htm/pd612.htm>



- Republic Act 9829 An Act Establishing the Pre-Need Code of the Philippines (as approved Dec. 3, 2009), Sections 4, 14 - 19, 23, 24, 31 and 39 (b).  
<http://www.actuary.org.ph/frontpage/downloads.asp>
- Actuarial Society of the Philippines. *Guidelines to Actuarial Practice in Pre-Need*, Sections I to V, VIII. 2005.  
<http://www.actuary.org.ph/frontpage/downloads.asp>
- Insurance Commission. *Guidelines on Variable Life Insurance Contracts*. July 2002.
- # David Cody, *An Expanded Financial Structure for Ordinary Dividends*, SOA Financial Reporting Section Monograph, pages 45-47 only.  
<http://www.soa.org/library/monographs/50th-anniversary/financial-reporting-section/1999/january/m-as99-1-03.pdf>

#### **D. Marketing of individual life insurance, pre-need and annuity products**

Topics include the marketing process, distribution methods, impact of market research and distribution method on product design and pricing, and cost disclosure. The candidate should be able to:

1. Understand the marketing process.
  - a. objectives of marketing
  - b. strategy formation
  - c. contribution margin and profit optimization
  - d. sources of marketing information
2. Understand alternative methods of distribution for individual life, pre-need and annuity products.
  - a. know the primary methods: traditional agency and non-traditional
  - b. primary compensation features of each system
3. Integrate market research and distribution method choices into the design and pricing of individual life, pre-need and annuity products.
  - a. use of market research in product design
  - b. appropriate assumption for selection pricing
4. Design appropriate product illustrations and disclosures.

#### Required Readings:

- Bellis, C. Shepard, J., and Lyon, R., 2003. *Understanding Actuarial Management: The Actuarial Control Cycle*. Institute of Actuaries of Australia, Chapter 5, Section 5.9
- Porte, P., Editor. *Marketing for Actuaries*, 2000. Chapters I–VII.
- Insurance Commission. *Circular Letter No. 23-2005. Guidelines on Sales Illustrations of Life Insurance Proposals*. August 3, 2005  
<http://www.insurance.gov.ph/@dmin/upload/reports/circular23.pdf>
- # Insurance Commission. *Circular Letter No. 16-2006. Amendments to the Guidelines on Sales Illustrations for Life Insurance Proposals*. May 12, 2006  
<http://www.insurance.gov.ph/@dmin/upload/reports/CL16-2006.pdf>
- *Direct Mailing and Telemarketing: A Review of Current Business Model*, 2003 EAAC
- Munich Re. *Bancassurance in Practice*. 2001

## **E. Monitoring and Responding to Experience**

Topics include:

1. Analysis of Experience
2. General considerations and management systems
3. Approaches to distribution of actual returns
4. Review of Insurance Pricing
5. Recognition of profits

### Required Readings:

- Bellis, C. Shepard, J., and Lyon, R., 2003. *Understanding Actuarial Management: The Actuarial Control Cycle*. Institute of Actuaries of Australia. Chapters 17 and 18 (excluding Section 18.8)
- CSO Task Force. *2001 CSO Table*. American Academy of Actuaries
- Society of Actuaries. *US Individual Life Persistency Report*. 2005
- Actuarial Society of the Philippines. *2000 Group HMO Claims Experience*. 2002 ASP Proceedings
- *Best Estimate Assumption for Expenses*, Appendix A, CIA Education Note
- Society of Actuaries, *Lapse Experience under Lapse Supported Products*, Product Development News, December 2005.  
<http://www.soa.org/library/newsletters/product-development-news/2005/december/pdn-2005-iss63-lebel.pdf>

## **F. Application of the Actuarial Control Cycle to Product Development, Design and Pricing**

### Required Readings:

- Bellis, C. Shepard, J., and Lyon, R., 2003. *Understanding Actuarial Management: The Actuarial Control Cycle*. Institute of Actuaries of Australia. Chapter 19
- Actuarial Society of the Philippines. *The Actuarial Control Cycle in a Life Insurance Industry*. 1998 ASP Proceedings

## ASP COURSE 2 (TENTATIVE SYLLABUS)

### INVESTMENTS AND FINANCE, VALUATION OF ASSETS AND LIABILITIES, INSURANCE AND PRE-NEED ACCOUNTING

#### A. Valuation of Liabilities

This course covers valuation of liabilities at introductory level. The student is expected to understand the impact of appropriateness of valuation assumptions used. The student must understand the relationship among valuation, pricing and the profitability of life insurance and pre-need operations. The student should also be familiar with the existing regulation on reserve valuation in the Insurance Code as well as the pre-need valuation regulations.

The student should also understand principles underlying the measurement of liabilities for insurance contracts under Philippine Financial Reporting Standards in terms of three building blocks: estimates of future cash flows, time value of money, and risk margins. This framework may be adopted under possible future international accounting standards.

In addition, in the context of the new Philippine (and International) Financial Reporting Standards, he must recognize embedded derivatives, must know how to unbundle deposit components, must know how to recognize and measure income and expenses and must know the disclosure requirements.

#### Required Readings:

- Tullis, Mark A., Polkinghorn, Phillip K. *Valuation of Life Insurance Liabilities*, 3rd Edition. Chapters 1, 2, 3, 4, 7, 8. (Omit portions on Canadian practices.)
- *Insurance Code of the Philippines*, Chapter III, Title 5 (excluding section 213).
- Actuarial Society of the Philippines. *Standards of Actuarial Practice in Pre-need*. November 18, 2005, Articles III, IV, V, VI and IX.
- RA 9829 New Pre-Need Code: Pre-Need Valuation: Sections 35, 36, 39, 40
- Philippine Financial Reporting Standard 4: Insurance Contracts
- *Measurement of Liabilities for Insurance Contracts - Current Estimates and Risks Margins* (excluding appendices), IAA, Risk Margin Working Group, 15 April 2009  
<http://actuary.org.ph/frontpage/downloads.asp>
- IASP6, *Liability Adequacy Testing, Testing for Recoverability of Deferred Transaction Costs, and Testing for Onerous Service Contracts under International Financial Reporting Standards IFRS [2005]*, International Association of Actuaries, Subcommittee on Actuarial Standards of the Committee on Insurance Accounting, 16 June 2005  
<http://actuary.org.ph/frontpage/downloads.asp>
- *Financial Reporting for Insurance Contracts under Possible Future International Accounting Standards* (excluding appendices), Society of Actuaries, 29 January 2008  
<http://actuary.org.ph/frontpage/downloads.asp>
- SOA Research Paper on the IFRS Discussion Paper Observations, Questions and Answers, Society of Actuaries, 25 July 2008  
<http://actuary.org.ph/frontpage/downloads.asp>

## B. Life Insurance & Pre-need Accounting

The student must understand how the different summary financial statements and the Philippine Annual Statements are prepared. The student must be able to realize how and how much a change in a particular accounting transaction will impact the summary financial statement and the Annual Statement. The student must also be familiar with the Insurance Commission (IC) and other regulations on financial reporting on pre-need companies.

### Required Readings:

- Noback, Joseph C. *Life Insurance Accounting*, 1969, Chapter 1- 4, 7-11, 16-17, 26-31, 38 (*Journal entries will not be directly tested*)
- Insurance Code of the Philippines, Chapter III, Titles 3 and 8
- Philippine Annual Statement Blank, pages 2-6, Exhibits 1 to 16
- Insurance Commission. *Circular No. 3-87 Preparation of the Annual Statement*. January 1987
- RA 9829 New Pre-Need Code: Pre-Need Accounting: Sections 41 – 47
- *ASP Guidelines Governing the Implementation of Amended Pre-Need Rule 31*, Issued Feb. 1, 2008

## C. Investments, Finance and Valuation of Assets

The readings provide an introduction to the different types of investments and their risk/return relationship as well as capital market theories and valuation of assets. The student must also familiarize himself with the limitations imposed by existing regulation on life insurance and pre-need company investments.

### Required Readings:

- Bodie, Kane and Marcus. *Investment* (Sixth Edition),  
Ch. 1 The Investment Environment  
Ch. 2 Financial Instruments  
Ch. 4 Mutual Funds and Other Investment Companies  
Ch. 5 History of Interest Rates and Risk Premiums  
Ch. 6 Risk and Risk Aversion  
Ch. 7 Capital Allocation Between the Risky Asset and the Risk-Free Asset  
Ch. 8 Optimal Risk Portfolio  
Ch. 9 The Capital Asset Pricing Model  
Ch. 14 Bond Prices and Yields  
Ch. 15 The Term Structure of Interest Rates  
Ch. 16 Managing Bond Portfolio  
Ch. 18 Equity Valuation Models
- *Insurance Code of the Philippines*, Chapter III, Title 4 (excluding sections 204, and 205)
- RA 9829 New Pre-Need Code: Pre-Need Investments: 30, 32 – 34, 37, 38
- *An Actuarial Layman's Guide to Building Stochastic Interest Rate Generators*, James A. Tilley (*from Abstract up to Section 4.1 only*)  
<http://actuary.org.ph/frontpage/downloads.asp>

## ASP COURSE 3

### SOLVENCY AND RISK MANAGEMENT FOR INSURANCE AND PRENEED COMPANIES, SELECTION OF RISKS, REINSURANCE, LAW AND TAXATION OF INSURANCE AND PRE NEED COMPANIES

#### A. Solvency and Risk Management

This section covers corporate finance and financial strategy, capital management and risk management. While some of the topics in the required readings will deal with specific discussion on US and Canadian practices, the student is expected to know the principles and other aspects of such topics as they may apply to local practice.

##### Required Readings:

- *Risk Management by Insurers: An Analysis of the Process*. Society of Actuaries Study Note, 8FE-203-00
- *Allocation of Risk Capital in Financial Institutions*. Society of Actuaries Study Note, 8FE-208-01
- *Asset/Liability Management*. Society of Actuaries Study Note, 8FE-316-03
- *Asset-Liability Management for Insurers*. Society of Actuaries Study Note, 8FE-319-02
- *Capital Allocation in Financial Firms*. Society of Actuaries Study Note, 8FE-325-06
- *Mapping of Life Insurance Risks*. Society of Actuaries Study Note, 8E-704-04
- Chew, D. *The New Corporate Finance: Where Theory Meets Practice, Third Edition*. Irwin/McGraw Hill:2001. Ch. 29, 31, 33
- Note on Enterprise Risk Management for Capital and Solvency Purposes in the Insurance Industry, excluding Appendices, IAA Enterprise and Financial Risk Committee Document, March 31, 2009.  
[http://www.actuaries.org/CTTEES\\_FINRISKS/Documents/Note\\_on\\_ERM.pdf](http://www.actuaries.org/CTTEES_FINRISKS/Documents/Note_on_ERM.pdf)
- The Function of the Actuary in Prudential Supervision, IAA Paper.  
[http://www.actuaries.org/LIBRARY/Papers/Prudential\\_Supervision\\_EN.pdf](http://www.actuaries.org/LIBRARY/Papers/Prudential_Supervision_EN.pdf)
- Atkinson, D.B., Dallas, J.W. *Life Insurance Products and Finance* 1st edition Society of Actuaries Chapter 10, Required Capital
- Second Report on ACLI/IAA Joint Research Project Concerning the Potential Interaction of Methods of Asset Measurement under IAS 32 / 39 with Various Liability Measurement Methods and the Effect of this Interaction on the Financial Statements of Life Insurers, excluding Appendices, IAA Paper  
[http://www.actuaries.org/LIBRARY/Papers/ACLI\\_IAA\\_Second\\_Joint\\_Report.pdf](http://www.actuaries.org/LIBRARY/Papers/ACLI_IAA_Second_Joint_Report.pdf)
- New Perspective on Risk Management: Creating Value by Managing Risk, *Financial Reporter*, Number 48.  
<http://www.soa.org/library/newsletters/financial-reporter/2001/december/frn0112.pdf>
- The Global Financial Crisis – What's Next?, IAA Official Public Statement, 2009-07-31;  
[http://www.actuaries.org/CTTEES\\_TFRISKCRISIS/Documents/GFC\\_What\\_Next\\_EN.pdf](http://www.actuaries.org/CTTEES_TFRISKCRISIS/Documents/GFC_What_Next_EN.pdf)
- Why US Life Companies are considering Economic Value as additional internal accounting system, *Financial Reporter*, Number 48  
<http://www.soa.org/library/newsletters/financial-reporter/2001/december/frn0112.pdf>

- Insurance Memorandum Circular 6-2006 Adoption of Risk-Based Capital Framework for the Philippine Life Insurance Industry, Oct. 5, 2006  
<http://www.insurance.gov.ph/@dmin/upload/reports/IMC%206-2006.pdf>
- Insurance Memorandum Circular 10 – 2006 Integrating Compliance Standards for Fixed Capitalization under Dept. Order 27-06 and Risk Capital Framework under IMC 6-2006 and 7-2006, Nov. 29, 2006  
<http://www.insurance.gov.ph/@dmin/upload/reports/IMC%2010-2006.pdf>
- *Insurance Code of the Philippines*. Chapter 3, Title 2 Margin of Solvency  
<http://www.insurance.gov.ph/htm/pd612.htm>
- Republic Act 9829 An Act Establishing the Pre-Need Code of the Philippines (as approved Dec. 3, 2009), Sections 9 Paid-Up Capital  
<http://www.actuary.org.ph/frontpage/downloads.asp>

## B. Selection of Risks and Reinsurance

This section covers underwriting and reinsurance. The student must be able to identify the different factors affecting the risk classification of a proposed insured. The student must understand the need for reinsurance, the factors which must be taken into consideration in choosing a reinsurance arrangement for an insurance company, and the different types of reinsurance arrangements.

- Academy of Life Underwriting. *Basic Life Insurance Underwriting, 3rd Edition*. Chapters 2 – 6, 8, 10, 13 - 14.
- Academy of Life Underwriting. *Intermediate Non-medical Life Insurance Underwriting, 1<sup>st</sup> Edition*. Chapters 1 - 5, 8, 12.
- Tiller, J. and Tiller, D. F. *Life, Health & Annuity Reinsurance, 3<sup>rd</sup> Edition*. ACTEX Publication:2005. Chapters 1 - 2, 4 - 5, 15.
- *Reinsurance Pricing*. Society of Actuaries Study Note, Code 82.31.71
- *Insurance Code of the Philippines*. Chapter 3 Title 7 – Reinsurance Transactions  
<http://www.insurance.gov.ph/htm/pd612.htm>
- # Insurance Commission. Superseding Circular Letters dated March 10, 2009, November 20, 1997, January 11, 1978, September 6, 1978 and all other circular letters in the same subject: *Rules and Regulations on Reinsurance Transactions*. August 1980  
<http://www.insurance.gov.ph/@dmin/upload/reports/CIRCULAR%20LETTER%2012.pdf>

## C. Law and Taxation

This section covers life insurance and pre-need law and taxation. The student is expected to understand the general principles of business law and the legal issues relating to life insurance and pre-need companies. The student should be familiar with the pertinent provisions of the Insurance Code, the Securities Regulation Code and various laws and regulations governing the life insurance and pre-need industries. The student must also understand the various ways that life insurance and pre-need companies are taxed. The student must also know the history of the changes in taxation in the Philippines, especially documentary stamps tax and premium tax among others and how they affect packaging and pricing of insurance and pre-need products.

- Life Office Management Association, Inc. *Business Law for Financial Services Professionals*, 2004. Chapters 5 - 6, 10 - 14.

- *Insurance Code of the Philippines*. Chapter 1, Titles 1 - 8; Chapter 2, Title 5; Chapter 3, Titles 1, 9, 12 & 13; Chapter 4, Titles 1 & 6  
<http://www.insurance.gov.ph/html/pd612.htm>.
- De Castro, Isagani. *Revised review notes on ASP Course 650: Excerpts from and Annotations on some Provisions of the Insurance Code including reading materials on the law applicable to Life Insurance*. 2001
- De Castro, Isagani. *Taxation Principles & Practice and Life Insurance Taxation*. (Students should consider the new provisions of R.A. 8424)
- *Republic of the Philippines Act No. 8424 (The Tax Reform Act of 1997)*. Section 27 (excluding 27(B), 32, 34(A) to 34(F), 34(M), 37, 85(E), 123, 183, 184 and 186)
- Republic Act 9829 An Act Establishing the Pre-Need Code of the Philippines (as approved Dec. 3, 2009), Sections 2, 3, 5 1st Paragraph, 20 - 22, 48, 53 - 59  
<http://www.actuary.org.ph/frontpage/downloads.asp>
- # Revenue Memorandum Circular No. 22-2010 - Publishes the full text of Republic Act No. 10001 entitled "An Act Reducing the Taxes on Life Insurance Policies, Amending for this Purpose Sections 123 and 183 of the National Internal Revenue Code of 1997, as Amended"  
<ftp://ftp.bir.gov.ph/webadmin1/pdf/49843RMC%20No%2022-2010.pdf>

## ASP COURSE 4 (TENTATIVE SYLLABUS)

### SOCIAL INSURANCE, GROUP INSURANCE AND HEALTH CARE SYSTEMS AND EMPLOYEE BENEFIT PLANS

#### A. Social Insurance

This section covers social insurance in general and the Philippines' social insurance systems. The student is expected to understand the models used by the different social security programs in determining the proper funding techniques to maintain fund viability. He should know the various implementing rules and regulations regarding social insurance in the Philippine setting.

##### Required Readings:

- *Social Insurance*, ASP Study Notes, Actuarial Dept., Social Security System, Oct. 2004, Chapters 1 to 3, Annex A Social Security System  
<http://actuary.org.ph/frontpage/downloads.asp>
- IAA Guidelines of Actuarial Practice for Social Security Programs, adopted October 21, 2002, effective January 01, 2003.  
<http://actuary.org.ph/frontpage/downloads.asp>
- Insurance Memorandum Circular No. 1-2010, Regulations for the Provision of Microinsurance Products and Services, Jan. 29, 2010  
<http://actuary.org.ph/frontpage/downloads.asp>
- *Microinsurance Regulatory Framework*, by Technical Working Group organized by Dept. of Finance and supported by ADB-JFPR, Jan. 29, 2010  
<http://actuary.org.ph/frontpage/downloads.asp>
- *Microinsurance National Strategy*, by Technical Working Group organized by Dept. of Finance and supported by GTZ MIPSS, Dec. 11, 2009  
<http://actuary.org.ph/frontpage/downloads.asp>

#### B. Group Insurance and Health Care Systems

This section covers group life insurance and health care systems. Specific topics include:

1. Group life insurance
2. Group disability insurance
3. Group medical and other group insurance coverages
4. Group underwriting and managing risks
5. Funding and rating
6. Actuarial models
7. Legal and regulatory requirements for group insurance and health coverages under the Philippine setting

##### Required Readings:

- Bluhm. *Group Insurance, 4<sup>th</sup> Edition*, 2003,  
Chapter 2 - Overview of Sales and Marketing  
Chapter 4 - Group Life Insurance Benefits (except discussions on U.S. Federal Tax Implications),  
Chapter 5 - Group Disability Income Benefits  
Chapter 6 - Medical Benefits in the United States  
Chapter 22 - Underwriting Large Groups  
Chapter 23 - Underwriting Small Groups



Chapter 25 - Claim Administration and Management  
Chapter 27 - Estimating Claim Costs for Life Benefits  
Chapter 28 - Estimating Medical Claim Costs  
Chapter 29 - Estimating Claim Costs for Disability Benefits  
Chapter 32 - Calculating Gross Premiums  
Chapter 33 - Experience Rating and Funding Methods  
Chapter 34 - Medical Claim Cost Trend Analysis  
Chapter 35 - Forecasting  
Chapter 38 - Short Term Reserves  
Chapter 39 - Claim Reserves for Long Term Benefits  
Chapter 40 - Underwriting Gain and Loss Cycles

- Insurance Code, Section 228

### **C. Employee Benefit Plans**

This section covers the financial aspects of retirement plans and how these may be measured. It also covers pension fund management practices in the Philippines as well as valuation methods. Legal and taxation considerations are also covered.

#### Required Readings:

- McGill, Dan M, et. al. *Fundamentals of Private Pensions*, 8th Edition. 2005. Chapters 10, 11, 12 (pp. 309-316), 14, 15, 21 to 25 (pp. 679-685)
- Anderson. *Pension Mathematics for Actuaries*, 3rd Edition. Chapters 2, 7
- Aitken. *A Problem-Solving Approach to Pension Funding and Valuation*, 2<sup>nd</sup> Edition. Chapters 1-5
- Cabading, Maricar, et al. *Private Retirement Plans in the Philippines*. Actuarial Society of the Philippines, 2005
- Philippine Accounting Standards No. 19
- Rules and Regulations Implementing The Personal Equity and Retirement Account (PERA) Act of 2008 (Approved on October 21, 2009)  
<http://actuary.org.ph/frontpage/downloads.asp>
- Herrera, Henry Joseph. *PERA Opportunities for the Life Insurance Industry*, June 2010  
<http://actuary.org.ph/frontpage/downloads.asp>

## **VII. Fellowship Admission Session**

The Fellowship Admission Session (FAS) is the last requirement for Fellowship in the Society. The FAS may not be taken unless all of the other course requirements for Fellowship have been met. Once these course requirements have been met, you may enroll in the next scheduled FAS. The FAS will be offered in August/September for those who completed all other course requirements the previous June or earlier, and in April/May for those who have completed all other course requirements the previous December or earlier. If you are unable to attend the FAS immediately following completion of Fellowship course requirements, you may attend any future FAS. You will not receive the FASP designation, nor be entitled to use such designation, until you have completed the FAS.

The FAS is three hours in length. The subjects covered are Professional Ethics and Integrated Problem Solving. The schedules of the FAS for 2011 may be obtained from the Office of the Actuarial Society of the Philippines.

Candidates who attend the session and participate in it fully will receive their Fellowship Diploma at the General Assembly of Society Members immediately following the FAS.

## **VIII. Validation by Educational Experience (VEE)**

The ASP Validation by Educational Experience (ASP-VEE) consists of the following topics: Applied Statistical Methods, Corporate Finance and Economics. These topics are no longer tested but are required in addition to the Associateship examinations. However, these VEE topics are not prerequisites for the examinations, and may be fulfilled independently.

A candidate may obtain ASP-VEE credits by attending courses accredited by the ASP and achieving the required grade. Alternatively, a candidate may take standardized examinations or attend non-accredited courses on the required topics and request for accreditation from the ASP. A candidate may combine two or more courses in order to complete the coverage for a VEE topic.

A candidate may request for ASP-VEE accreditation after passing at least two Associateship examinations and not earlier than one year prior to expected completion of the examination requirements. A candidate should apply for credits for an ASP-VEE topic after he has completed the coverage of that topic. Partial credits will not be given.

### **ASP Accredited Courses**

To request credits from attendance in ASP-accredited courses, a candidate should submit the following:

- Duly-accomplished ASP-VEE accreditation form,
- Payment of accreditation fee of P1,200.00 per ASP-VEE topic, and
- Original Transcript of Records, and photocopy thereof. The original transcript will be returned to the candidate.

The list of accredited courses will be updated periodically.

If a candidate has received VEE credits from the SOA, the candidate may apply for ASP-VEE credits by submitting the ASP accreditation form, the accreditation fee and his original SOA transcript of records reflecting that he has been SOA-VEE credits. If the candidate does not have SOA-VEE credits but has passed an SOA-accredited course, standardized examination or other educational experience, the candidate may still apply for ASP-VEE credits by submitting the required proof of attendance.

## **Standardized Examinations or Courses not Accredited by the ASP**

If a VEE Course or Examination does not appear on the ASP list, approval must be requested by submitting the following documentation:

- Duly-accomplished ASP-VEE accreditation form
- Accreditation fee P 1,200.00 per ASP-VEE topic,
- Detailed course description, outline or syllabus, and
- Original copies of Attendance and/or Transcript of Records, and photocopy thereof. The original certificate and/or transcript will be returned to the candidate.

The ASP may request for additional documentation to determine if the course or examination and the candidate's performance have satisfied ASP-VEE requirements.

## **Topics Required under ASP's Validation by Educational Experience (ASP-VEE)**

### **Applied Statistical Methods**

To obtain credit for this topic, the candidate must show satisfactory proof of attendance in course(s) covering most of the subjects listed below:

#### Regression analysis

- Least square estimates of parameters
- Single linear regression
- Multiple linear regression
- Hypothesis testing and confidence intervals in linear regression models
- Testing of models, data analysis and appropriateness of models

#### Time series/forecasting

- Linear time series models
- Moving average, autoregressive and/or ARIMA models
- Estimation, data analysis and forecasting with time series models
- Forecast errors and confidence intervals

### **Corporate Finance**

To obtain credit for this topic, the candidate must show satisfactory proof of attendance in course(s) covering most of the subjects listed below:

- Definitions of key finance terms: stock company; capital structure
- Key finance concepts: financing companies; characteristics and uses of financial instruments; sources of capital; cost of capital; dividend policy; personal and corporate taxation
- Factors to be considered by a company when deciding on its capital structure and dividend policy
- Impact of financial leverage and long/short term financing policies on capital structure
- Characteristics of the principal forms of financial instruments issued or used by companies, and the ways in which they may be issued
- How a company's cost of capital relates to the investment projects the company wishes to undertake
- Definitions of key finance terms: financial instruments – bond, stock, basic options (calls, puts); dividends; price to earnings ratio
- Structure of a stock company and the different methods by which it may be financed
- Calculate value of stocks
- Measures of financial performance: balance sheet; income statement; statement of cash flows; financial ratios (e.g. leverage, liquidity, profitability, market value ratios); net present value: the payback, discounted payback models; internal rate of return and profitability index models
- Assessment of financial performance using various measures: balance sheet; income statement; statement of cash flows, financial ratios (e.g. leverage, liquidity, profitability, market value ratios);

net present value; the payback, discounted payback models; internal rate of return and profitability index models

## **Economics**

To obtain credit for this topic, the candidate must show satisfactory proof of attendance in course(s) covering most of the subjects listed below:

### Microeconomics

- Interaction between supply and demand in the provision of a product and the way in which equilibrium market prices are determined
- Elasticity of demand and supply and the effects on a market of different levels of elasticity
- How rational utility maximizing agents make consumption choices
- How profit-maximizing firms make short run and long run production choices
- Different types of competition, or lack of it, and the practical effect on supply and demand

### Macroeconomics

- Structure of public sector finances of an industrialized economy
- GDP, GNP, and Net National Product. How these concepts are used in describing the economy and in making comparisons between countries, and their limitations
- Propensity to save or to consume by the private sector or the corporate sector and how it affects the economy
- Impact of fiscal and monetary policy and other forms of government intervention on different aspects of the economy, and in particular on financial markets
- Role of exchange rates and international trade in the economy and the meaning of the term balance of payments
- Major factors affecting the rate of inflation, the level of interest rates, the exchange rate, the level of unemployment, and the rate of economic growth in the economy of an industrialized country

## **IX. Associateship Admission Course**

The Associateship Admission Course (AAC) is the last requirement for Associateship. The AAC may not be taken until all of the other requirements for Associateship have been met. The AAC will be offered in August/September for those who completed their other requirements the previous June or earlier, and in April/May for those who completed their other requirements the previous December or earlier. If a candidate is unable to attend the AAC immediately following completion of Associateship examination and VEE requirements, he may attend any future AAC. The candidate will not receive the AASP designation, or be entitled to use such designation, until he has completed the AAC.

The AAC is planned to be two-and-one-half hours in length. The subjects covered are the structure and functions of the Actuarial Society of the Philippines, and an overview of Professional Ethics and Actuarial Practice. The schedule of the AAC may be obtained from the ASP Secretariat Office.

## **Appendix A**

### **Courses Accredited by ASP for VEE**

(as of January 2011)

The following courses have been accredited by ASP for Validation by Educational Experience. A passing grade is required to obtain ASP-VEE credits.

#### **VEE-Applied Statistical Methods**

1. Ateneo de Manila University (ADMU)  
AMF 131 – Time Series and Forecasting, taken during 1998 - 2011
2. De La Salle University (DLSU)  
TIMESER or TIMEFOR - Time Series and Forecasting, taken during 1998 - 2011
3. University of the Philippines – Diliman (UP-D)  
Statistics 136 – Regression Analysis AND Statistics 145 – Introduction to Time Series Analysis and Forecasting, taken during 1998 – 2011
4. ASP Courses  
Course on Applied Statistical Methods: Econometrics, August 1 - October 3, 2007, conducted by Prof. Robert E. de Vera
5. All SOA-accredited Courses, Standardized Examinations and Other Educational Experiences for its VEE-Applied Statistical Methods, taken during 1998 - 2011

#### **VEE-Economics**

1. Ateneo de Manila University (ADMU)  
Economics 102 - Basic Economics, Agrarian Reform & Taxation, taken during 1998 - 2011
2. De La Salle University (DLSU)
  - (a) INTRECO - Introduction to Economics, taken during 1998 - 2011
  - (b) ECONONE - Basic Microeconomics and ECON TWO - Aggregate Economics, both taken during 1998 - 2011

3. University of Asia and Pacific (UA&P)  
FOS 101 - Basic Economics, taken during 1998 - 2011
4. University of the Philippines – Diliman, Quezon City
  - (a) ECON 101 - Macroeconomics and ECON 102 – Microeconomics, taken during 1998 -2011
  - (b) ECON 100.1 – Introduction to Macroeconomic Theory and Policy, and  
ECON 100.2 – Introduction to Microeconomic Theory and Policy, both taken during 1998 - 2011
5. SOA-accredited Courses, Standardized Examinations and Other Educational Experiences for its VEE-Economics, taken during 1998 – 2011

### **VEE-Corporate Finance**

1. Ateneo de Manila University (ADMU)  
FIN 120 – Financial Statement and Credit Analysis, taken during 1998 - 2011
2. De La Salle University (DLSU)  
FINAMA2 - Financial Management 2, taken during 1998 – 2011
3. SOA-accredited Courses, Standardized Examinations and Other Educational Experiences for its VEE-Corporate Finance, taken during 1998 – 2011

### **Accreditation of SOA Courses 2 and 4**

Candidates who passed SOA's pre-2005 Courses 2 and 4, will be given ASP-VEE credits for Applied Statistical Method, Economics, and Corporate Finance, provided those SOA courses have been submitted to ASP for accreditation.

## Appendix B

### Requirements for Admission to the Society as an Associate For those Who Completed Associateship Exams Prior to 2008

- a. **Who may be admitted.** Any individual, at least 18 years of age, upon nomination by two Fellows of the Society in good standing, may be admitted after completing the Associateship education and examination requirements effective during the year the last Associateship exam was passed.
- b. **When and how to apply.** A candidate planning to seek admission to the Society should submit an Application for admission as Associate to membership Committee within 10 years from completion of the education and examination requirements for associateship. As an example, an examinee who finishes his last associateship exam in 2007 will have until 2017 to apply for Associateship under the 2007 education and examination syllabus. The application form may be obtained from the Chairman of the Membership committee. The application for admission as Associate is subject to approval by the Board of Governors of the Society and by majority vote of the Society.
- c. **Associateship Education and Examination Requirements for 2006 and 2007.** Those who completed their last associateship examinations in 2006 and 2007 have to attend the Associateship Admission Course (formerly called the Associateship Professionalism Course) as announced in the 1<sup>st</sup> Quarter General Membership Meeting in 2006, held at the SGV, AIM Makati. This requirement should be completed with prior to attainment of fellowship designation.



**ACTUARIAL SOCIETY OF THE PHILIPPINES  
APPLICATION FOR JUNE 2011 EXAMINATIONS**

1. Full Name \_\_\_\_\_  
Surname                      Given Name                      Middle Name

If your name differs from that used in a previous application, please indicate prior name:

\_\_\_\_\_

2. Date of Birth \_\_\_\_\_  
Month                      Day                      Year

3. Address \_\_\_\_\_  
\_\_\_\_\_ Tel. No.: \_\_\_\_\_

Please check if examination correspondence is to be mailed to this address.

4. A. If you are employed :  
Name of Employer \_\_\_\_\_  
Present Position \_\_\_\_\_  
Address \_\_\_\_\_

Please check if examination correspondence is to be mailed to this address.

B. If you are a student :  
Name of School \_\_\_\_\_  
School Address \_\_\_\_\_  
Course & Year \_\_\_\_\_  
Expected Date of Graduation \_\_\_\_\_

5. Examination (s) applied for (Please check)

Course Number		Exam Fee
<input type="checkbox"/> ASP Course 1	June 2011	Php 7,200
<input type="checkbox"/> ASP Course 3	June 2011	Php 7,200

6. Have you registered for actuarial exams before?            Yes            No

7. Please indicate your ASP membership status:  
 Non-member       Affiliate       Associate

8. Enter amount of examination fee (s) enclosed: P \_\_\_\_\_

**" I have read the rules and regulations contained in the ASP Examination Catalogue concerning the examination(s) for which I am applying and agree to be bound thereby."**

Signature \_\_\_\_\_ Date \_\_\_\_\_

For ASP use only: OR No. \_\_\_\_\_ I.D. No. \_\_\_\_\_

**Submit on or before May 3, 2011**