



Canadian
Institute of Actuaries



Casualty
Actuarial Society



Society
of Actuaries

Guidelines for Approval of VEE Courses and Educational Experiences

The following guidelines for the three Validation by Educational Experience (VEE) requirements are used by the VEE Administration Committee to determine whether or not specific courses or educational experiences are appropriate to fulfill the VEE requirements. The “Application for Approval of Course/Experience for Validation by Educational Experience Credit” must be submitted to the VEE Administration Committee along with the required documentation. If a course/educational experience is approved, it will be added to the “Directory of Approved VEE Courses/Experiences” or the “Standardized Exams and Other Educational Experiences” list on the CAS (www.casact.org) and SOA (www.soa.org) Web Sites.

VEE–Applied Statistical Methods

Courses that meet this requirement may be taught in the mathematics, statistics, or economics department, or in the business school. In economics departments, this course may be called Econometrics. The material could be covered in one course or two. The mathematical sophistication of these courses will vary widely and all levels are intended to be acceptable. Some analysis of real data should be included. Most of the topics listed below should be covered:

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

VEE–Corporate Finance

The typical corporate finance program covers the topics below in two semesters with an introductory course followed by a more advanced semester. If the second course covers most of the topics, then only the second course will be required. Where the topics are split across two semesters or courses, both will be required. The exceptional case where the corporate finance topics are covered in only one course, with no finance prerequisite, will also be considered, however, this will typically be at a more advanced level than a course designed for general business students. Most of the topics listed below should be covered:

- 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

VEE–Economics

Typically, the VEE requirement for economics will be met if a candidate has completed two economics courses, one course covering microeconomics and the other covering macroeconomics. Most of the topics listed below should be covered:

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