

**Middle East Technical University**  
**Graduate School of Social Sciences**  
**Doctor of Philosophy in Business Administration**  
**In the Field of Accounting-Finance**

**Aims:**

The aim of Doctor of Philosophy in Business Administration program in the field of Accounting-Finance is to educate academicians and experts to follow national and international developments and use modern techniques, put forward original solutions to the existing problems and handle these in compliance with ethical conduct. In this respect, our priorities goals are to supply those students who want to specialize in Accounting and Finance fields and pursue an academic career in fields mentioned above with theoretical background and contemporary research methods while ensuring that all kinds of related tools are utilized effectively.

**Admission Criteria for the Ph. D. Program:**

Students with a graduate can apply to the normal Ph.D. program directly whereas those who have an undergraduate degree from a four year university should apply to the integrated Ph.D. program.

Student admission to the program is based on methods determined by METU Department of Business Administration and the related legislation.

**Evaluation Criteria:**

- TOEFL / İYS / IELTS : 243 / 75 / 7.5 (minimum)
- LES / ALES / GMAT : 50 / 60 / 600 (minimum)
- Cumulative Grade Points Averages for Undergraduate or Graduate Program :  
For Integrated Program applicants, undergraduate CGPA should be at least  $3.00 / 4.00 = 80 / 100$   
For Ph.D. Program applicants, graduate CGPA should be at least  $3.00 / 4.00 = 80 / 100$
- Reference letters, description of work experience
- Statement of purpose
- Face to face interviews with the applicants

The exam result specified above are valid for two years.

**Total Duration:**

The time allowed to complete the Ph. D. program is **8 semesters** for students with a master's degree and **10 semesters** for the students who enter the integrated program with an undergraduate degree.

**Total Credits:**

**30** credits are required for master's program graduates and **51** credits for undergraduate program.

**Scientific Preparatory Program**

Students who have a graduate or undergraduate degree may apply to the program. However, they need to take scientific preparation courses before starting the courses in the program. They may be exempted from these courses if they have taken the courses previously. Upon request, the Academic Committee reviews the student's records, conducts exams when necessary and decides whether the student can be exempted from the courses listed below:

- Financial Accounting
- Cost or Managerial Accounting \*
- Statistics
- Microeconomics
- Macroeconomics
- Finance
- Calculus / Differential Equations ( for METU MATH 119, 120, 219) \*\*

\* Compulsory for specialization in Accounting field.

\*\* A maximum of two of these courses may be taken in the first year of integrated program via overloading.

### **Ph.D. Program**

Applicants who successfully complete the scientific preparatory program should follow the following schedule. The must and elective courses (course code, course name, course content and course credit) and total credits that students have to take are indicated below.

- 8 must PhD courses (24 credits in total)
- 1 must research method courses with application (0 credits)
- 2 elective courses (6 credits in total)
- Ph.D. thesis

### **Integrated Ph.D Program**

- 5 Integrated Program courses (15 credits in total)
- 8 must PhD courses (24 credits in total)
- 1 must research method courses with application (0 credits)
- 4 elective courses (12 credits in total)
- Ph.D. thesis

**Doctor of Philosophy in Business Administration in the Field of Accounting-Finance <sup>1[1]</sup>:**

| <b>First Year</b>   |                |
|---|----------------|
| <i>Fall Semester</i>  |                |
| <i>Courses</i>  | <i>Credits</i> |
| BA 6401 Accounting Theory <i>or</i>                         |                |
| BA 6801 Theory of Finance                                   | (3-0)3         |
| BA 6505 Applied Regression Analysis                         | (3-0)3         |
| BA 6811 Microeconomic Theory                                | (3-0)3         |
| <i>Spring Semester</i>                                      |                |
| BA 6402 Topics in Accounting Research <i>or</i>             |                |
| BA 6802 Topics in Finance Research                          | (3-0)3         |
| BA 6506 Applied Multivariate Analysis                       | (3-0)3         |
| Elective (Restricted)*                                      | (3-0)3         |
| <i>Summer Semester</i>                                      |                |
| BA 6021 Research Paper I (Seminar)                          | NC             |
| <b>Second Year</b>  |                |
| <i>Fall Semester</i>  |                |
| BA 6507 Applied Time Series and Panel Data Analysis         | (3-0)3         |
| BA 6803 Topics in Finance Research II <i>or</i>             |                |
| BA 6403 Topics in Accounting Research II                    | (3-0)3         |
| Elective (Restricted)*                                      | (3-0)3         |
| <i>Spring Semester</i>                                      |                |
| BA 6404 Topics in Accounting and Finance Research <i>or</i> |                |
| BA 6804 Topics in Accounting and Finance Research           | (3-0)3         |
| <b>Third and Fourth Years</b>                               |                |
| <i>Fall Semester</i>  |                |
| BA 6099 Ph.D. Dissertation                                  | NC             |
| BA 80xx Special Studies                                     | NC             |
| BA 90xx Special Topics                                      | NC             |
| <i>Spring Semester</i>                                      |                |
| BA 6099 Ph.D. Dissertation                                  | NC             |
| BA 80xx Special Studies                                     | NC             |
| BA 90xx Special Topics                                      | NC             |
| <i>Summer Semester</i>                                      |                |
| BA 6099 Ph.D. Dissertation                                  | NC             |
| BA 80xx Special Studies                                     | NC             |
| BA 90xx Special Topics                                      | NC             |

\* Elective courses must be approved by the advisor and the department.

<sup>1[1]</sup> Course descriptions are provided below.

## Additional courses that must be taken within the scope of Integrated Ph.D Program

| <b>First Year</b>                                      |                |
|--|----------------|
| <i>Fall Semester</i>                                   |                |
| <i>Courses</i>   | <i>Credits</i> |
| BA 5505 Research Methods in Accounting and Finance     | (3-0)3         |
| BA 5811 Corporate Finance                              | (3-0)3         |
| BA 5814 Investment Management <i>or</i>                |                |
| BA 5818 Analysis of Financial Statements               | (3-0)3         |
| BA 5819 Financial Institutions and Markets             | (3-0)3         |
|  |                |
| <i>Spring Semester</i>                                 |                |
| BA 5506 Quantitative Methods in Accounting and Finance | (3-0)3         |
| Elective (Restricted)                                  | (3-0)3         |
| Elective (Restricted)                                  | (3-0)3         |
|  |                |

### Appendix 1

#### Course Descriptions:

**BA 5411 Auditing (3-0)3**

Auditing theory and practice applicable to business organizations in general; auditing standards, procedures, rules of professional conduct, and related material of professional importance.

**BA 5412 Cost Accounting (3-0)3**

Content topics such as cost concepts, CVP relationships; budgeting; job, process and operation systems; flexible budgets and standards; service department cost allocation; allocation of joint and byproduct cost; spoilage, waste, defective units and scrap; relevant-cost analysis; capital budgeting; decentralization and transfer pricing.

**BA 5413 Advanced Management Accounting (3-0)3**

The aim of the course is to investigate accounting topics that lend themselves to the use of mathematical and statistical techniques of cost analysis, with emphasis on the internal needs of management.

**BA 5414 Special Topics in Accounting (3-0)3**

This course is designed to equip the students with knowledge on contemporary issues in accounting such as funds flow and cash flow analysis, leases, pension plans, tax problems, consolidations, intangibles, profit appropriation, foreign exchange transactions, accounting for derivatives and accounting problems created by price-level changes.

**BA 5417 Intermediate Accounting** (3-0)3

This course covers international accounting standards within the scope of intermediate accounting topics. Topics covered include financing and operating activities of companies, application of generally accepted accounting principles to those activities, and evaluation of financial statements.

**BA 5421 International Accounting** (3-0)3

This course covers various domains of accounting around the world, emphasizing code based vs. common law countries and spheres of influence. International Financial Reporting Standards will be reviewed within this framework.

**BA 5505 Research Methods in Finance and Accounting** (3-0)3

This course emphasizes the role and significance of research within accounting and finance, and covers different types and functions of research, formulating research, research questions, hypotheses, concepts, operations and briefs, research philosophies, epistemologies and ontologies and their relevance to quantitative and qualitative methodology and methods, collecting, analysing and interpreting data: survey methodology and methods, questionnaire design and administration, questionnaire analysis including basic statistical techniques and computer data using a relevant statistical software package – i.e. SPSS (or equivalent). Also qualitative research methods including structured, semi-structured and unstructured interviews, focus groups, participant and non participant observation will be selectively discussed. Research ethics, social and economic objectives of research, writing and presentation of research results and analysis are within the scope of this course.

**BA 5506 Quantitative Methods in Finance and Accounting** (3-0)3

This course will cover application of select mathematical tools in business and economics. Among these topics are equilibrium analysis, sets, functions, matrices and determinants, sequences, limits, cobweb model, rate of change, exponential function, continuous compounding, introduction to optimization, derivatives, partial derivatives, chain rule, integration, martingales, Brownian motion, Markov processes. The aim is to introduce how mathematical tools are applied in economics and business, especially in finance.

**BA 5514 Risk Management** (3-0)3

The aim of the Risk Management and Insurance course is to provide an introduction to the actuarial philosophy and the actuarial scientific method. All major areas in risk and insurance are treated in some depth, including basic concepts, fundamental legal principles, property and liability insurance, life and health insurance, social insurance, the functional and financial operations of insurance companies, and the main features of the Turkish insurance market.

**BA 5811 Corporate Finance** (3-0)3

The course introduces the financial operations in business corporations and the related concepts such as risk, rate of return, and valuation. Topics covered include Risk, Rates of Return, Time Value of Money, Bond and Stock Valuation, Cost of Capital, Basics of Capital Budgeting, Cash Flow Estimation, Capital Structure and Leverage, Investment Banking and Securities Market.

**BA 5812 Turkish Banking and Financial System** (3-0)3

The course encompasses the history of Turkish Banking and Financial System from the Ottoman Empire to the present. It takes a close look at Banking Crises in Turkey. The roles of banks and non-bank financial institutions in the Turkish Financial System are examined.

**BA 5814 Investment Management** (3-0)3

The purpose of this course is to introduce the student to the area of investment with emphasis upon why individuals and institutions invest and how they invest. Topics include measures of risk and return; capital and money markets; process and techniques of investment valuation; principles of fundamental analysis; technical analysis; analysis and management of bonds; analysis of alternative investments; portfolio theory and application.

**BA 5817 International Finance** (3-0)3

The first part of the course aims at introducing the student to foreign exchange markets, exchange rate determination theories, forecasting and international trade financing. A project on Turkey will be assigned. The second part of the course deals with aspects of financial management for multinational corporations.

**BA 5818 Analysis of Financial Statements** (3-0)3

The objective of the course is to provide the knowledge and the skills necessary to take full advantage of financial reports and analysis. Starting with an overview of financial accounting, the topics that will be covered include financial statements, ratio analysis, comparative analysis and the management of operating funds.

**BA 5819 Financial Institutions and Markets** (3-0)3

Analysis of financial intermediation and the determination of interest rates are the main topics covered. Businesses, consumers, and governments in money and capital markets are observed with emphasis on financial instruments. International financial markets are discussed. The purposes and functions of central banking are studied with primary attention to monetary policy.

**BA 5820 Portfolio Management** (3-0)3

The emphasis of the course is directed toward capital markets and portfolio management, and investment in securities. The discussions are basically about corporate securities and their valuation, and the organizations of the financial markets.

**BA 5821 Bank Management** (3-0)3

Basic asset, liability, and capital management are discussed. Topics include primary lending functions, pricing techniques, risk management, and bank organization. Familiarization with international banking is provided.

**BA 5822 Principles of International Banking** (3-0)3

The basic principles covered in BA 5821 are enhanced through an international perspective. The changing nature of bank management; a functional overview of international banking and its structure are among the topics discussed in the course.

**BA 5825 Financial Derivatives** (3-0)3

This course is designed to provide a solid foundation in the principles of derivatives. It attempts to strike a balance between institutional details, theoretical foundations, and practical applications. In parallel with the already increasing attempts to integrate derivative securities and markets into the Turkish financial system, it is believed that this course will fill a gap in

that the students will be exposed to a rather comprehensive coverage of theory and application in the derivatives area.

**BA 5827 Fixed Income Analysis** (3-0)3

The objective of this course is to provide the students with an overview of the fixed income market. This includes coverage of the securities available in the Turkish and international markets, their investment characteristics, the latest techniques for valuing them and portfolio strategies for using them.

**BA 5829 Valuation Models and Applications** (3-0)3

This course focuses on valuation of real and financial assets. The valuation methods covered are discounted cash flow approaches, multiples and real options. Students will learn how to calculate value for various asset types and how to choose the appropriate method of valuation.

**BA 5830 Special Topics in Finance** (3-0)3

This course is designed to deal with some special topics in finance. The purpose of the course is to extend knowledge of students beyond basic finance topics and increase the awareness of students on some key issues of finance. The topics covered include short term financial planning, leasing, mergers and acquisitions, international finance and derivative securities.

**BA 6021 Research Paper I** NC

During the summer of the first year, the students are required to replicate a recent research study in their field of interest under the supervision of their advisor. While replicating a research, the students are required to critically analyze the motivation, methodology and the results of the study.

**BA 6401 Accounting Theory** (3-0)3

The aim of the course is to introduce the students to prevailing schools of thought in accounting theory. Specifically, the historical development of accounting theory will be covered with special emphasis on current development. The course is organized around three main topics: normative and positive accounting theories; financial reporting disclosures and ethical considerations; and income determination.

**BA 6403 Topics in Accounting Research** (3-0)3

The course covers main research areas in accounting utilizing an extensive list of readings starting with earlier research and ending with very recent research in accounting. The areas covered include, but are not limited to, capital market research, behavioral research in accounting, analytical research in accounting, and other empirical research in accounting and related areas. The students are expected develop skills pertaining to how research work should be evaluated critically.

**BA 6403 Topics in Accounting Research II** (3-0)3

The course covers the research that addresses the common problems in accounting. The aim of the course is to broaden the research prospective of the students.

**BA 6505 Applied Regression Analysis** (3-0)3

This course will cover the following topics: Simple Linear Regression, Introduction to Multiple Regression, Multiple Regression Model Building, Heteroscedasticity and



Autocorrelation, Dummy Variables and Truncated Variables, Nonlinear Regressions, Simultaneous Equation Models, MLE, GMM. The instruction will be based on applied work in business with extensive use of a statistical software package- i.e. SPSS, MINITAB

**BA 6506 Applied Multivariate Analysis** (3-0)3

This course will cover Multivariate data, Multivariate normal distribution, Multivariate ANOVA, MANCOVA, Repeated measures MANOVA, Multivariate regression, Principal Components, Factor Analysis, Canonical Correlation Analysis, Discriminant Analysis, Cluster Analysis, Multidimensional Scaling. Students will be required to understand the use of and apply the techniques in finance and accounting using a relevant statistical software- i.e. SPSS, MINITAB

**BA 6507 Applied Time Series and Panel Data Analysis** (3-0)3

This course will cover the following materials in two parts, with an applied emphasis in finance and accounting. TIME SERIES: Data handling, Univariate time series, VARs and VECMs, Structural VAR modeling and Impulse Response Analysis, forecast error variance decomposition, Conditional Heteroscedasticity; PANEL DATA: One-way error component: fixed effects, random effects, Two-way error component: fixed effects, random effects, SUR, Nonstationary Panels: panel unit root, panel co-integration, estimation and inference in integrated panels. A statistical software package will be extensively used- i.e. Eviews, Microfit, RATS & CATS

**BA 6801 Theory of Finance** (3-0)3

The aim of the course is to introduce the students to the literature on financial theory. Utility theory, state-preference theory, mean-variance portfolio theory, the capital asset pricing model and arbitrage pricing model, option pricing theory, and MM theorems are analyzed both conceptually and empirically.

**BA 6802 Topics in Finance Research** (3-0)3

The course covers main research areas in finance utilizing a wide range of papers. These areas include (but are not limited to) information content of corporate announcements, market microstructure, statistical properties of asset returns, unconditional tests of asset pricing models (CAPM, APT), conditional tests of asset pricing models, efficient markets hypothesis and anomalies, behavioral finance, mutual fund and fund flows, and international finance. The students are expected to develop skills pertaining to how research work should be conducted and should be evaluated critically.

**BA 6803 Topics in Finance Research II** (3-0)3

The course covers the research that addresses the common problems in finance. Articles that investigate issues such as stock market reaction to announcements, capital structure of firms and financial analysis are some of the topics that are discussed. The aim of the course is to broaden the research prospective of the students.

**BA 6404 and BA 6804 Topics in Accounting and Finance Research** (3-0)3

The course covers recent research that addresses the specific problems in current accounting and finance literature with the purpose of clarifying possible research ideas. In so doing, relevant literature in specific areas is critically analyzed regarding the research question and proper methodology.

**BA 6811 Microeconomic Theory** (3-0)3

The course will cover topics relevant to the program such as consumer choice, demand, expected utility, production, models of the firm, partial equilibrium, general equilibrium, perfect competition, imperfect competition, and strategy.