# **ASSOCIATE DEGREE PROGRAMS**

The Department of Associate Degree Programs offers the 2-year Associate Degree in Business Administration. Accounting & Finance, Commerce and Computing. All of the above programs are accredited by the Higher Education Commission of Pakistan. These programs are equal to 14 years of education and are open to post intermediate entrants. These programs are intended to be conducted in four semesters over a period of two years. The Associate Degree Programs offered at CUST are designed in close consultation with industry and field experts with the aim to develop a work force capable of fulfilling the gap between industry needs and skilled manpower. The curriculum ensures that the graduates possess communication, interpersonal and occupational skills suitable for the needs of the industry. It includes 66 to 68 credit hours of studies

further enhanced by hands on practical training through an industrial internship, all of which are essential for completion of degree requirements.

The Associate Degree Programs offer some unique advantages as compared to other undergraduate degrees. On completion of an Associate Degree students can join practical life at the earliest possible stage as they are now part of a young work force fully equipped with industry-oriented skills. Additionally, these programs offer an affordable path towards an early profession for the financially incapacitated. Further, as the Associate Degree is approximately equal to the first two years of the corresponding 4-year Bachelor Degree, hence, students who have completed the Associate Degree can seek direct enrollment in the 5th semester of the relevant 4 year Bachelor Degree Program.



# Associate Degree in Business Administration

The Associate Degree Program (ADP) is designed to fill the gap between industry needs and the skilled manpower. The two-year ADP program will prepare the HSSC graduates for the job market in a short time. The courses are designed to develop student's communication, interpersonal and occupational skills. The courses cover diverse areas of business administration including accounting,

management, finance, human resource management and marketing. This program will build a professional work force with high employment value. The graduates may continue the respective BS program in future with advance standing.

#### **■** Admission Requirements

- (i) Higher Secondary School Certificate or equivalent securing at least 45% marks in aggregate.
- (ii) CUST Admission Test / HEC Approved Test.

#### **■** Degree Requirements

The candidate is required to complete 69 Cr. Hrs. as per following details:

|    | Area                             | Cr. Hrs. |
|----|----------------------------------|----------|
| a) | General Education                | 39       |
| b) | Discipline Specific Requirements | -        |
|    | Foundation Courses               | 21       |
|    | • Elective Courses               | 06       |
| c) | Internship                       | 03       |
|    | Total                            | 69       |

#### **■** General Education (39 Cr. Hrs.)

| Course Title               | Code     | Cr. Hrs. |
|----------------------------|----------|----------|
| Islamic Studies            | ADPG1013 | 3        |
| English I                  | ADPG1113 | 3        |
| Intro to Psychology        | ADPG1213 | 3        |
| Mathematics                | ADPG1313 | 3        |
| Introduction to Computing  | ADPG1413 | 3        |
| Language I                 | ADPG15x3 | 3        |
| Pakistan Studies           | ADPG1023 | 3        |
| English II                 | ADPG1123 | 3        |
| Economics                  | ADPG1223 | 3        |
| Statistics and Probability | ADPG1323 | 3        |

| Analytical Reasoning | ADPG1423 | 3 |
|----------------------|----------|---|
| Language II          | ADPG15x3 | 3 |
| English III          | ADPG2133 | 3 |

#### **■** Discipline Specific Requirements

#### a)-Foundation Courses (21 Cr. Hrs.)

| Course Title                    | Code    | Cr. Hrs. |
|---------------------------------|---------|----------|
| Principle of Management         | ADP2003 | 3        |
| Business Finance                | ADP2103 | 3        |
| Principles of Accounting        | ADP2113 | 3        |
| Business Information System     | ADP2203 | 3        |
| E Business                      | ADP2213 | 3        |
| Business Communication          | ADP2223 | 3        |
| Entrepreneurship and Innovation | ADP2033 | 3        |

#### b)-Elective Courses (06 Cr. Hrs.)

| Course Title              | Code    | Cr. Hrs. |
|---------------------------|---------|----------|
| Principles of Marketing   | ADP2013 | 3        |
| Human Resource Management | ADP2023 | 3        |

## **■** Internship(PY4000)

Students will have to complete a 9-week summer internship after they have completed their  $4^{th}$  semester.

#### **■** Duration

This is a two-year degree program comprising of 4 semesters. There will be a Fall and a Spring semester each year. The maximum duration to complete the ADP (Business Administration) is 4 years.

#### **■ CGPA** Requirement

# SCHEME OF STUDIES ADP Business Administration

#### ☐ Semester-I (18 Cr. Hrs.)

| Course Code | Course Title              | Category      | Cr. Hrs. |
|-------------|---------------------------|---------------|----------|
| ADPG1113    | English I                 | General (En1) | 3        |
| ADPG1213    | Intro to Psychology       | General (SS1) | 3        |
| ADPG1313    | Mathematics               | General (NS1) | 3        |
| ADPG1413    | Introduction to Computing | General (QR1) | 3        |
| ADPG15x3    | Language I                | General (AH1) | 3        |
| ADPG1013    | Islamic Studies           | General (CV1) | 3        |

## ☐ Semester-II (18 Cr. Hrs.)

| Course Code | Course Title               | Category      | Cr. Hrs. |
|-------------|----------------------------|---------------|----------|
| ADPG1123    | English II                 | General (EN2) | 3        |
| ADPG1223    | Economics                  | General (SS2) | 3        |
| ADPG1323    | Statistics and Probability | General (NS2) | 3        |
| ADPG1423    | Analytical Reasoning       | General (QR2) | 3        |
| ADPG15x3    | Language II                | General (AH2) | 3        |
| ADPG1023    | Pakistan Studies           | General (CV2) | 3        |

## ☐ Semester-III (15 Cr. Hrs.)

| Course Code | Course Title                | Category      | Cr. Hrs. |
|-------------|-----------------------------|---------------|----------|
| ADPG2133    | English III                 | General (EN3) | 3        |
| ADP2003     | Principle of Management     | Major         | 3        |
| ADP2103     | Business Finance            | Major         | 3        |
| ADP2113     | Principles of Accounting    | Major         | 3        |
| ADP2203     | Business Information System | Major         | 3        |

## ☐ Semester-IV (15 Cr. Hrs.)

| Course Code | Course Title                    | Category | Cr. Hrs. |
|-------------|---------------------------------|----------|----------|
| ADP2213     | E Business                      | Major    | 3        |
| ADP2223     | Business Communication          | Major    | 3        |
| ADP2013     | Principles of Marketing         | Elective | 3        |
| ADP2023     | Human Resource Management       | Elective | 3        |
| ADP2033     | Entrepreneurship and Innovation | Major    | 3        |



# Associate Degree in Accounting and Finance

The Associate Degree in Accounting and Finance is a regular 2-year degree program which has been designed to equip the students with adequate knowledge and skills which would help them taking an early start of their professional career. The courses are designed to cover diverse areas from field of accounting and finance. This program will build professional work force for financial sector with high employment value. The graduates holding Associate Degree can continue future

education towards respective BS 4-year degree program with advance standing.

#### **■** Admission Requirements

- (i) Higher Secondary School Certificate or equivalent securing at least 45% marks in aggregate.
- (ii) CUST Admission Test / HEC Approved Test.

#### **■** Degree Requirements

The candidate is required to complete 69 Cr. Hrs. as per following details:

|    | Area                             | Cr. Hrs. |
|----|----------------------------------|----------|
| a) | General Education                | 39       |
| b) | Discipline Specific Requirements | -        |
|    | • Foundation Courses             | 21       |
|    | • Elective Courses               | 06       |
| c) | Internship                       | 03       |
|    | Total                            | 69       |

#### ■ General Education (39 Cr. Hrs.)

| Course Title               | Code     | Cr. Hrs. |
|----------------------------|----------|----------|
| Islamic Studies            | ADPG1013 | 3        |
| English I                  | ADPG1113 | 3        |
| Intro to Psychology        | ADPG1213 | 3        |
| Mathematics                | ADPG1313 | 3        |
| Introduction to Computing  | ADPG1413 | 3        |
| Language I                 | ADPG15x3 | 3        |
| Pakistan Studies           | ADPG1023 | 3        |
| English II                 | ADPG1123 | 3        |
| Economics                  | ADPG1223 | 3        |
| Statistics and Probability | ADPG1323 | 3        |
| Analytical Reasoning       | ADPG1423 | 3        |

| Language II | ADPG15x3 | 3 |
|-------------|----------|---|
| English III | ADPG2133 | 3 |

#### **■** Discipline Specific Requirements

#### a)-Foundation Courses (21 Cr. Hrs.)

| Course Title                    | Code    | Cr. Hrs. |
|---------------------------------|---------|----------|
| Principle of Management         | ADP2003 | 3        |
| Business Finance                | ADP2103 | 3        |
| Principles of Accounting        | ADP2113 | 3        |
| Business Information System     | ADP2203 | 3        |
| E Business                      | ADP2213 | 3        |
| Business Communication          | ADP2223 | 3        |
| Entrepreneurship and Innovation | ADP2033 | 3        |

#### b-Elective Courses (06 Cr. Hrs.)

| Course Title                | Code    | Cr. Hrs. |
|-----------------------------|---------|----------|
| Principles of Accounting II | ADP2123 | 3        |
| Money and Banking           | ADP2143 | 3        |

#### **■** Internship(PY4000)

Students will have to complete a 9-week summer internship after they have completed their  $4^{th}$  semester.

#### **■** Program Duration

This is a two-year degree program comprising of 4 semesters. There will be a Fall and a Spring semester each year. The maximum duration to complete the ADP (Accounting and Finance) is 4 years.

#### **■ CGPA** Requirement

# SCHEME OF STUDIES ADP Accounting and Finance

#### ☐ Semester-I (18 Cr. Hrs.)

| Course Code | Course Title              | Category      | Cr. Hrs. |
|-------------|---------------------------|---------------|----------|
| ADPG1113    | English I                 | General (En1) | 3        |
| ADPG1213    | Intro to Psychology       | General (SS1) | 3        |
| ADPG1313    | Mathematics               | General (NS1) | 3        |
| ADPG1413    | Introduction to Computing | General (QR1) | 3        |
| ADPG15x3    | Language I                | General (AH1) | 3        |
| ADPG1013    | Islamic Studies           | General (CV1) | 3        |

## ☐ Semester-II (18 Cr. Hrs.)

| Course Code | Course Title               | Category      | Cr. Hrs. |
|-------------|----------------------------|---------------|----------|
| ADPG1123    | English II                 | General (EN2) | 3        |
| ADPG1223    | Economics                  | General (SS2) | 3        |
| ADPG1323    | Statistics and Probability | General (NS2) | 3        |
| ADPG1423    | Analytical Reasoning       | General (QR2) | 3        |
| ADPG15x3    | Language II                | General (AH2) | 3        |
| ADPG1023    | Pakistan Studies           | General (CV2) | 3        |

## ☐ Semester-III (15 Cr. Hrs.)

| Course Code | Course Title                | Category      | Cr. Hrs. |
|-------------|-----------------------------|---------------|----------|
| ADPG2133    | English III                 | General (EN3) | 3        |
| ADP2003     | Principle of Management     | Major         | 3        |
| ADP2103     | Business Finance            | Major         | 3        |
| ADP2113     | Principles of Accounting    | Major         | 3        |
| ADP2203     | Business Information System | Major         | 3        |

# ☐ Semester-IV (15 Cr. Hrs.)

| Course Code | Course Title                    | Category | Cr. Hrs. |
|-------------|---------------------------------|----------|----------|
| ADP2213     | E Business                      | Major    | 3        |
| ADP2223     | Business Communication          | Major    | 3        |
| ADP2123     | Principles of Accounting II     | Elective | 3        |
| ADP2143     | Money and Banking               | Elective | 3        |
| ADP2033     | Entrepreneurship and Innovation | Major    | 3        |



# **Associate Degree in Commerce**

The Associate Degree in Commerce is a regular 2-year degree program which has been designed to equip the students with adequate knowledge and skills which would help them taking an early start of their professional career. The courses are designed to cover diverse areas from field of commerce including accounting, finance, taxation, law auditing and E-Commerce. This program will build professional work force with high employment value. The graduates holding Associate Degree can continue towards respective BS 4-year degree program

in future with advance standing.

#### **■** Admission Requirements

- (i) Higher Secondary School Certificate or equivalent securing at least 45% marks in aggregate.
- (ii) CUST Admission Test / HEC Approved Test.

#### **■** Degree Requirements

The candidate is required to complete 69 Cr. Hrs. as per following details:

|    | Area                             | Cr. Hrs. |
|----|----------------------------------|----------|
| a) | General Education                | 39       |
| b) | Discipline Specific Requirements | -        |
|    | Foundation Courses               | 21       |
|    | Elective Courses                 | 06       |
| c) | Internship                       | 03       |
|    | Total                            | 69       |

#### ■ General Education (39 Cr. Hrs.)

| Course Title               | Code     | Cr. Hrs. |
|----------------------------|----------|----------|
| Islamic Studies            | ADPG1013 | 3        |
| English I                  | ADPG1113 | 3        |
| Intro to Psychology        | ADPG1213 | 3        |
| Mathematics                | ADPG1313 | 3        |
| Introduction to Computing  | ADPG1413 | 3        |
| Language I                 | ADPG15x3 | 3        |
| Pakistan Studies           | ADPG1023 | 3        |
| English II                 | ADPG1123 | 3        |
| Economics                  | ADPG1223 | 3        |
| Statistics and Probability | ADPG1323 | 3        |
| Analytical Reasoning       | ADPG1423 | 3        |
| Language II                | ADPG15x3 | 3        |

English III ADPG2133 3

#### **■** Discipline Specific Requirements

#### a)-Foundation Courses (21 Cr. Hrs.)

| Course Title                    | Code    | Cr. Hrs. |
|---------------------------------|---------|----------|
| Principle of Management         | ADP2003 | 3        |
| Business Finance                | ADP2103 | 3        |
| Principles of Accounting        | ADP2113 | 3        |
| Business Information System     | ADP2203 | 3        |
| E Business                      | ADP2213 | 3        |
| Business Communication          | ADP2223 | 3        |
| Entrepreneurship and Innovation | ADP2033 | 3        |

#### b-Elective Courses (06 Cr. Hrs.)

| Course Title              | Code    | Cr. Hrs. |
|---------------------------|---------|----------|
| Cost Accounting           | ADP2153 | 3        |
| Business Law and Taxation | ADP2043 | 3        |

## **■** Internship(PY4000)

Students will have to complete a 9-week summer internship after they have completed their  $4^{th}$  semester.

#### **■** Program Duration

This is a two-year degree program comprising of 4 semesters. There will be a Fall and a Spring semester each year. The maximum duration to complete the ADP (Commerce) is 4 years.

#### **■ CGPA** Requirement

# SCHEME OF STUDIES ADP Commerce

#### ☐ Semester-I (18 Cr. Hrs.)

| Course Code | Course Title              | Category      | Cr. Hrs. |
|-------------|---------------------------|---------------|----------|
| ADPG1113    | English I                 | General (En1) | 3        |
| ADPG1213    | Intro to Psychology       | General (SS1) | 3        |
| ADPG1313    | Mathematics               | General (NS1) | 3        |
| ADPG1413    | Introduction to Computing | General (QR1) | 3        |
| ADPG15x3    | Language I                | General (AH1) | 3        |
| ADPG1013    | Islamic Studies           | General (CV1) | 3        |

## ☐ Semester-II (18 Cr. Hrs.)

| Course Code | Course Title               | Category      | Cr. Hrs. |
|-------------|----------------------------|---------------|----------|
| ADPG1123    | English II                 | General (EN2) | 3        |
| ADPG1223    | Economics                  | General (SS2) | 3        |
| ADPG1323    | Statistics and Probability | General (NS2) | 3        |
| ADPG1423    | Analytical Reasoning       | General (QR2) | 3        |
| ADPG15x3    | Language II                | General (AH2) | 3        |
| ADPG1023    | Pakistan Studies           | General (CV2) | 3        |

## ☐ Semester-III (15 Cr. Hrs.)

| Course Code | Course Title                | Category      | Cr. Hrs. |
|-------------|-----------------------------|---------------|----------|
| ADPG2133    | English III                 | General (EN3) | 3        |
| ADP2003     | Principle of Management     | Major         | 3        |
| ADP2103     | Business Finance            | Major         | 3        |
| ADP2113     | Principles of Accounting    | Major         | 3        |
| ADP2203     | Business Information System | Major         | 3        |

# ☐ Semester-IV (15 Cr. Hrs.)

| Course Code | Course Title                    | Category | Cr. Hrs. |
|-------------|---------------------------------|----------|----------|
| ADP2213     | E Business                      | Major    | 3        |
| ADP2223     | Business Communication          | Major    | 3        |
| ADP2153     | Cost Accounting                 | Elective | 3        |
| ADP2043     | Business Law and Taxation       | Elective | 3        |
| ADP2033     | Entrepreneurship and Innovation | Major    | 3        |



# **Associate Degree Program in Computer Science**

The Associate Degree Program (ADP) is a two-year post-Intermediate (or equivalent qualifications with twelve years of schooling) degree program that is offered at undergraduate level and is approved by the Higher Education Commission (HEC). An ADP is structured to be conducted over four regular semesters in a two-years period and consists of 65 to 68 credit hours. Department of Computer Science at Capital University of Science & Technology (CUST), Islamabad is offering ADP in Computer Science (ACS). It is approximately equivalent to the first two years of BS(CS) degree.

The primary purpose of ACS is to fulfill the requirements of industry and to produce a young workforce that can join practical life at the earliest possible stage after being equipped with industry-oriented IT skills. It also maintains afford ability for students that are financially incapacitated. The curriculum of ACS is especially developed in close consultation with experts

from industry. The courses of ACS can be broadly categorized into following:

- a) General Courses
- b) Foundation Courses
- c) Technology-Oriented Courses

Students holding ACS are also eligible for enrollment directly in fifth semester of BS(CS) program by transferring their earned credits.

#### ■ Admission Requirements

- (i) Higher Secondary School Certificate or equivalent securing at least 45% marks in aggregate.
- (ii) CUST Admission Test / HEC Approved Test.

#### **■** Degree Requirements

The candidate is required to complete 71 Cr. Hrs. as per following details:

|    | Area                             | Cr. Hrs. |
|----|----------------------------------|----------|
| a) | General Education                | 28       |
| b) | Discipline Specific Requirements | -        |
|    | Foundation Courses               | 28       |
|    | • Elective Courses               | 12       |
| c) | Internship                       | 03       |
|    | Total                            | 71       |

#### ■ General Education (28 Cr. Hrs.)

| Course Title                     | Code     | Cr. Hrs. |
|----------------------------------|----------|----------|
| Islamic Studies                  | ACSG1012 | 2        |
| English I                        | ACSG1113 | 3        |
| Intro to Psychology              | ACSG1213 | 3        |
| Calculus and Analytical Geometry | ACSG1013 | 3        |

| Applied Physics      | ACSG1023 | 3 |
|----------------------|----------|---|
| Linear Algebra       | ACSG1033 | 3 |
| Pakistan Studies     | ACSG1022 | 2 |
| English II           | ACSG1123 | 3 |
| Financial Accounting | ACSG2113 | 3 |
| English III          | ACSG2133 | 3 |

### **■** Discipline Specific Requirements

# a)-Foundation Courses (28 Cr. Hrs.)

| Course Title                         | Code    | Cr. Hrs. |
|--------------------------------------|---------|----------|
| Introduction to Programming          | ACS1133 | 3        |
| Introduction to Programming Lab      | ACS1131 | 1        |
| Object Oriented Programming          | ACS1143 | 3        |
| Object Oriented Programming Lab      | ACS1141 | 1        |
| Discrete Structures                  | ACS1153 | 3        |
| Data Structures                      | ACS2143 | 3        |
| Data Structures Lab                  | ACS2141 | 1        |
| Introduction to Database Systems     | ACS2313 | 3        |
| Introduction to Database Systems Lab | ACS2311 | 1        |
| Software Engineering                 | ACS2223 | 3        |
| Operating Systems                    | ACS2233 | 3        |
| Computer Networks                    | ACS2243 | 3        |

# b-Elective Courses (12 Cr. Hrs.)

| Course Title                           | Code    | Cr. Hrs. |
|--|---------|----------|
| Web Application Development            | ACS2413 | 3        |
| Web Application Development Lab        | ACS2411 | 1        |
| Enterprise Application Development     | ACS2423 | 3        |
| Enterprise Application Development Lab | ACS2421 | 1        |
| Mobile Application Development         | ACS2433 | 3        |
| Mobile Application Development Lab     | ACS2431 | 1        |

#### ■ Internship PY4000 (3 Cr. Hrs.)

Students will have to complete a 9-week summer internship after they have completed their  $4^{th}$  semester.

#### **■** Program Duration

This is a two-year degree program comprising of 4 semesters. There will be a Fall and Spring semester each year. The maximum duration to complete the ADP (Computer Science) is 4 years.

#### **■ CGPA** Requirement



# SCHEME OF STUDIES

# ADP Computer Science

#### ☐ Semester-I (15 Cr. Hrs.)

| Course Code | Course Title                     | Category   | Cr. Hrs. |
|-------------|----------------------------------|------------|----------|
| ACSG1113    | English I                        | General    | 3        |
| ACSG1013    | Calculus and Analytical Geometry | General    | 3        |
| ACSG1023    | Applied Physics                  | General    | 3        |
| ACSG1022    | Pakistan Studies                 | General    | 2        |
| ACS1133     | Introduction to Programming      | Foundation | 3        |
| ACS1131     | Introduction to Programming Lab  | Foundation | 1        |

## ☐ Semester-II (18 Cr. Hrs.)

| Course Code | Course Title                    | Category   | Cr. Hrs. |
|-------------|---------------------------------|------------|----------|
| ACSG1123    | English II                      | General    | 3        |
| ACSG1033    | Linear Algebra                  | General    | 3        |
| ACSG1012    | Islamic Studies/ Ethics         | General    | 2        |
| ACSG1213    | Introduction to Psychology      | General    | 3        |
| ACS1153     | Discrete Structures             | Foundation | 3        |
| ACS1143     | Object Oriented Programming     | Foundation | 3        |
| ACS1141     | Object Oriented Programming Lab | Foundation | 1        |

# ☐ Semester-III (18 Cr. Hrs.)

| Course Code | Course Title                     | Category   | Cr. Hrs. |
|-------------|----------------------------------|------------|----------|
| ACSG2133    | English III                      | General    | 3        |
| ACSG2113    | Financial Accounting             | General    | 3        |
| ACS2143     | Data Structures                  | Foundation | 3        |
| ACS2141     | Data StructuresLab               | Foundation | 1        |
| ACS2313     | Introduction to Database Systems | Foundation | 3        |

| ACS2311 | Introduction to Database Systems Lab | Foundation | 1 |
|---------|--------------------------------------|------------|---|
| ACS2413 | Web Application Development          | Elective   | 3 |
| ACS2411 | Web Application Development Lab      | Elective   | 1 |

# ☐ Semester-IV (17 Cr. Hrs.)

| Course Code | Course Title                           | Category   | Cr. Hrs. |
|-------------|--|------------|----------|
| ACS2223     | Software Engineering                   | Foundation | 3        |
| ACS2233     | Operating Systems                      | Foundation | 3        |
| ACS2243     | Computer Networks                      | Foundation | 3        |
| ACS2423     | Enterprise Application Development     | Elective   | 3        |
| ACS2421     | Enterprise Application Development Lab | Elective   | 1        |
| ACS2433     | Mobile Application Development         | Elective   | 3        |
| ACS2431     | Mobile Application Development Lab     | Elective   | 1        |

