#### Virtual University of Pakistan

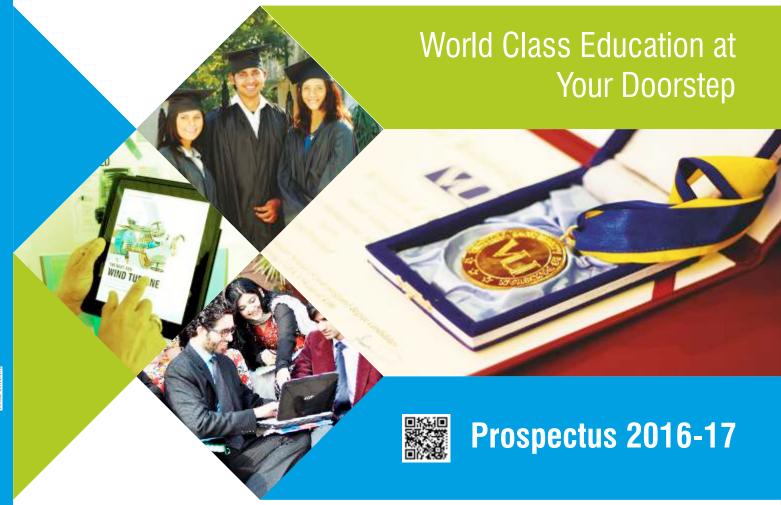
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/ VirtualUniversityOfPakistan | 🕑 / VUPakistan

Price Rs. 500/-







# VIRTUAL UNIVERSITY OFPAKISTAN

www.vu.edu.pk

### **Mission Statement**

"to provide flexible & affordable world-class education to everyone at doorsteps"

> The information provided in this prospectus is relevant to academic year 2016-17 and meant for the guidance of prospective students of Virtual University of Pakistan and shall not be deemed to constitute a contract between the University or any third party. While compiling the information, every effort has been made to ensure its accuracy, correctness and completeness. lowever, it shall not imply any legal binding or liability on part of the University or its employees in any way.

> The University reserves the right to change the provisions of this prospectus at any time, including, but not limited to, admission eligibility criteria, degree requirements, course offerings and fees schedule etc. as necessitated by University or legislative action.

# WELCOME TO



# VIRTUAL UNIVERSITY **OF PAKISTAN** www.vu.edu.pk

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### Chancellor's Message



Development of Higher Education is a primary condition for the socio-economic development and societal transformation. It builds the critical human capital necessary for research, innovation, growth and development across all sectors of economy. Inclusive access to higher education can thus transform our strong demographic advantage into a peaceful, modern and prosperous society. To fully benefit from the prevailing demographic reality, we need to educate our people in the shortest possible time. However, supply of qualified faculty vis-`a-vis demand is the single largest challenge in accomplishing the task without compromising the quality of education. A practical solution to the problem is the use of modem Information and Communication Technology (ICT) tools to deliver education while maintaining high and internationally compatible standards of education.

Virtual University of Pakistan is the pioneer university to leverage the use of ICT in imparting the best possible education to its students all over the country including the remote areas as well as the Pakistani diaspora overseas.

With its extremely flexible mode, Virtual University enables the students to manage their studies at their convenience and offers every opportunity to discover hidden talents.

I feel proud that the Virtual University of Pakistan is playing its due role in the socio-economic uplift of the country and contributing towards building an educated nation. I hope that the University will continue to ensure quality of education and teaching and play an increasingly important role in improving access to Higher Education in the country.

Pakistan Paindabad!

#### Mamnoon Hussain

President, Islamic Republic of Pakistan

### **Rector's Message**

Welcome to the fastest growing academic community in the Country - the Virtual University of Pakistan. In just a few years this Federal Government University has become one of the largest higher education institutions of the country. Its graduates are gainfully employed by prominent industrial and business concerns and many have established their own enterprises and are providing employment to others. A large number of VU graduates are continuing their studies at other top tier universities both within and outside Pakistan.

You must be aware that VU is the pioneer in Information and Communications Technology based education in Pakistan. It employs a unique pedagogy involving video content delivered through multiple modes including broadcast television, the World Wide Web and DVDs, Comprehensive student-teacher interaction and support is provided over the Internet and supplemented using mobile devices. The University has developed world-class courses for you and in order to fully benefit from them, you should become completely familiar with the University's Learning Management System (VULMS). You will be provided a detailed orientation in order to help you get started with your studies at VU.

The Virtual University of Pakistan maintains high academic standards and you will have to work regularly and consistently to get a degree from Virtual University, but let me assure you: the Virtual University's degree is well worth the effort.

If ever you have any problems, questions or suggestions, please do not hesitate to write to me. Your suggestions are very valuable and will help us further improve the programs of the Virtual University.

Once again, welcome, and let us march together towards an educated Pakistan and into a new and prosperous era for our nation.

Dr. Naveed A Malik (Sitara-e-Imtiaz)

rector@vu.edu.pk



#### **Organizational Structure**

- · The President of the Islamic Republic of Pakistan is the Chancellor of the University.
- The Rector is the Chief Executive and Chief Academic Officer of the University.
- Other Officers of the University include:
  - Registrar
  - Deans

03

- · Chairpersons or Heads of the Teaching Departments
- **Director Finance** •
- Controller of Examinations •
- Director Information & Communication Technologies (ICT)

- The Board of Governors is the apex body of the University, responsible for the general supervision and control of administrative, academic and financial affairs, to lay down the policies and statues.
- Other Authorities of the University include:
  - Executive Council
  - Academic Council
  - Boards of Study
  - Advanced Studies and Research Board
  - Selection Board
  - Finance and Planning Council
  - Affiliation Committee

#### **Board of Governors**

The constitution of the Board of Governors as defined in the Virtual University Ordinance 2002 is as follows:

| Sr. # | Name/Designation   | Status/Position |
|-------|--|-----------------|
| 1     | Secretary, Ministry of Information Technology & Telecom,<br>Government of Pakistan, Islamabad                | Chairman        |
| 2     | Rector, Virtual University of Pakistan   | Member          |
| 3     | Secretary , Ministry of Education, Islamabad or his nominee not below the rank of Joint Secretary            | Member          |
| 4     | Secretary , Ministry of Information & Media Development,<br>Government of Pakistan, Islamabad                | Member          |
| 5     | Chairperson, Higher Education Commission or his nominee not below the rank of an officer of BPS 20           | Member          |
| 6     | Chairman, National Telecommunications Corporations or his nominee not below the rank of an officer of BPS 20 | Member          |
| 7     | Registrar, Virtual University of Pakistan  | Secretary       |
| 8     | One Retired Judge of the Supreme Court of Pakistan.  | Member          |
| 9     | One Serving or Retired Rector or Vice Chancellor of a<br>Public Sector University                            | Member          |
| 10-12 | Three Eminent Educationists or Scientists not being Employees of the University                              | Member          |
| 13    | One Expert from Financial Sector   | Member          |
| 14    | One Dean of the University   | Member          |
| 1     |  |                 |

#### Introduction

#### Milestones

| Important Milestones  | Month-Year |
|---|------------|
| Federal charter granted by Government of Pakistan   | Sep-02     |
| Virtual University launches 2 free to air Educational Broadcast<br>Television Channels (VUTV 1 & VUTV 2)                          | Mar-04     |
| University adds 2 more channels to its Television Network (VUTV 3 & VUTV 4)   | Aug-06     |
| VU goes global - All video lecture placed on YouTube  | Jun-08     |
| Launch of a unique VU e-Examination System  | Oct-08     |
| Enrollment exceeds 50,000 students  | Sep-09     |
| Launch of VU Open Courseware website  | Oct-11     |
| VU Open Courseware website declared best website of the year  | Apr-12     |
| Deployment of VU Examination Software to NUST for conduct of Entry Test   | Jun-12     |
| Student enrollment crosses 100,000 mark   | Oct-12     |
| VU offers its educational resources to other universities free of cost  | Nov-12     |
| VU partners with University of the Punjab and Technical University Kaiserslautern, Germany to launch B.Ed. in Technical Education | Sep-14     |
| Deployment of VU Learning Management System (VULMS) to Concordia Colleges   | Sep-14     |
| University starts Degree Programs in Life Sciences  | Sep-14     |
| Launch of VU Journal  | Sep-14     |
| Launch of Global Languages website  | Nov-14     |
| Initiation of Ph.D. Programs  | Sep-15     |

#### Memoranda of Understanding

| The Virtual University of Pakistan has signed a number of memoranda with renowned organizations mainly focusing on the following                   | 8<br>9 |
|--|--------|
| areas:   | 1      |
| Development of educational contents  |        |
| Exchange of resources  | 1      |
| Joint Degree Programs  | 1      |
| Research & Development   |        |
| Staff/Teachers Training  | 1      |
| Strengthening of IT infrastructure   | 1      |
| A few prominent Higher Education Institutions/<br>Organization which have signed MoUs with the<br>Virtual University of Pakistan are listed below: |        |
| <ol> <li>National University of Science and Technology<br/>(NUST)</li> </ol>   | P      |
| 2. IBA-Karachi   | 1      |
|  | E.     |

- 3. Government College University, Faisalabad
- 4. University of Gujrat
- 5. University of Sargodha
- 6. University of the Punjab
- 7. FC College University, Lahore

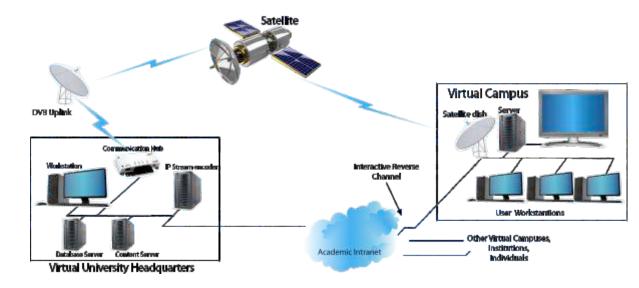
- 8. Pakistan Institute of Management
- 9. Shaheed Benazir Bhutto University, KPK
- 10. Diamond Group of Industries
- 11. Gujranwala Chamber of Commerce and Industry (GCCI)
- 12. Small & Medium Enterprise Development Authority (SMEDA)
- 13. Abudawood Trading Company Pakistan
- 14. J & U International, Pakistan-Dubai-Canada



# Virtual University

The Virtual University of Pakistan started its operations as public sector institution in year 2002. It was the first Information & **Communication Technologies** (ICT) based university established by the Government of Pakistan with a mission to provide affordable world-class education across the Country and abroad. Since its inception, the University is continuously striving to improve access to higher education for all knowledge seekers. The University strongly believes in providing life-long learning opportunities while keeping its focus on flexibility, convenience and affordability but certainly without compromising on the quality of education. The immense power of ICT, coupled with courses developed by highly qualified experts lead to its unique mode of imparting education and makes it stand out amongst other universities of the Country.

#### Mode of Education



The Virtual University uses a combination of video lectures, reading material, audio/video tutorials and on-line interaction (e-class rooms) for imparting knowledge. However, it follows a very formal assessment and evaluation system in the same fashion as used in any conventional higher education institution (HEI). Although, the University observes the semester system with true spirit but its students have complete flexibility to study at their own convenience, pace and place.

More than 160 campuses of the University across Pakistan provide its students a great opportunity to participate in academic activities without any extra burden on their pockets as compared with those studying at home. The wide spread of virtual campuses and complete flexibility to study at home jointly support the unique idea of "World Class Education at Your Doorstep" and in a true sense makes it unnecessary for students to relocate or travel to larger cities for higher education.

The University's video lectures are developed by highly qualified faculty members or field experts in a complete digital environment and handcrafted at its own fully equipped recording studios. These lectures are then delivered through University's Learning Management System and its four free to air Television Channels (VTV1  $\sim$  4). Lectures are also made available over the Internet on YouTube, Dailymotion and the Virtual University's Open-Courseware site (http://ocw.vu.edu.pk). Although, the students can watch these video lectures at their own convenience, however the University suggests a "Time Plan" for guidance and better time management for studies during the semester. Students may also obtain the video lectures on DVDs from the University's online bookshop.

Complete student-teacher interaction and support is provided through the VULMS while semester examinations are conducted in a formal, proctored environment at designated examination centers throughout the country. Introduction



Virtual University of Pakistan offers admission twice in an academic year namely Fall and Spring sessions. Admission opening announcements are published in leading print, electronic and social media.

Applicants fall into the following broad categories:

#### Indigenous/Local

The Virtual University offers admissions to all Pakistani nationals regardless of their religion, race, class, creed, color, sex, domicile or location, who are academically qualified for admission towards its offered study programs.

#### **Overseas Pakistanis**

The University also offers opportunity to overseas Pakistanis to seek admission towards its study programs. Admission requirements, rules and regulations remain the same for overseas students as for students residing within Pakistan.

#### Foreign Nationals

The University offers admission to candidates holding foreign/ dual nationality residing abroad provided they can understand Pakistan's National Language i.e. 'Urdu'. In such cases, the candidates are required to submit a declaration that he /she will not demand any letter from the University for the Issuance of Pakistani visa to enter the Country.



# Confirmation of Admission

The University informs successful applicants using the following means:

- The list of admitted candidates is published on the VU website, and updated on daily basis during the admission session.
- Successful candidates are informed via e-mail and by post.
- Students are provided with their unique Student Identification Number (VU ID) and password to access the VULMS.

Admissions



## Fee for Local Students (in Pak Rupees)

| Degree Program                  | Admission<br>Fee<br>(one time) | Registration<br>Fee<br>(one time) | Security Fee<br>(one time,<br>refundable) | Admission<br>Processing<br>Fee (Including<br>prospectus) | Enrollment<br>Fee Per<br>Semester | Tuition<br>Fee per<br>Cr. Hr. | Convocation<br>Fee<br>(one time<br>mandatory) |
|---------------------------------|--------------------------------|-----------------------------------|---|--|-----------------------------------|-------------------------------|---|
| MBA Top-up                      | 7,000                          | -                                 | -   | 500  | 3,000                             | 2,000                         | -   |
| Associate Degree Programs       | 3,000                          | 2,500                             | 2,000                                     | 500  | 1,000                             | 700                           | 2,000   |
| Bachelors                       | 3,000                          | 2,500                             | 2,000                                     | 500  | 1,000                             | 700                           | 2,000   |
| BS                              | 3,000                          | 2,500                             | 2,000                                     | 500  | 1,000                             | 700                           | 2,000   |
| Masters                         | 5,000                          | 2,500                             | 5,000                                     | 500  | 1,000                             | 1,100                         | 2,000   |
| MS                              | 7,000                          | 2,500                             | 10,000                                    | 500  | 3,000                             | 2,000                         | 2,000   |
| Ph.D.                           | 7,000                          | 2,500                             | 10,000                                    | 500  | 3,000                             | 2,000                         | 2,000   |
| Deficiency Semester(s)          | 3,000                          | -                                 | -   | 500  | 1,000                             | 1,100                         | -   |
| Diploma                         | 3,000                          | 2,500                             | 2,000                                     | 500  | 1,000                             | 1,100                         | -   |
| Specialization Certificate      | 3,000                          | 2,500                             | -   | 500  | 3,000                             | 1,100                         | -   |
| Zero Semester *                 | 3,000                          | -                                 | -   | 500  | -                                 | * 7,500                       | -   |
| Zero Semester for MS Programs * | 3,000                          | -                                 | -   | 500  | -                                 | * 12,500                      | -   |
| Short Courses *                 | 500                            | 500                               | -   | 500  | -                                 | * 3,500                       | -   |

The revised fee structure is applicable to all students w.e.f. Fall 2016. Notes:

- 1. Admission fee includes degree verification fee from the previous institution.
- 2. Entry Test (where applicable) will be charged @ Rs. 1,000/- and will be non-refundable.
- 3. Tuition fee @ Rs. 1,100/- per credit hour will be charged from MS students enrolled in deficiency course(s).
- 4. Lab fee for practical(s) will be charged (where applicable) at following rates: a. BS @Rs. 2,000/- per credit hour

  - b. MS @Rs. 5,000/- per credit hour
- 5. Thesis fee will be charged at following rates (in addition to per credit hour tuition fee): a. MS @ Rs. 15,000/
  - b. Ph.D @ Rs. 25,000/-
- 6. Research fee will be charged at following rates:
  - a. MS in Bioinformatics, Biotechnology, Genetics, Zoology and Molecular Biology @ Rs. 15,000/b. Ph.D @ Rs. 50,000/-
  - Research fee will be charged at the time of enrolment of research work and will be in addition to the Thesis fee.
- 7. Convocation fee @ Rs. 2,000/- will be charged in the final semester of the respective batch; the payment is mandatory to get transcript, degree and other certificates from the University.
- 8. Endowment fund contribution will be charged@ Rs. 1,000/- one time during entire degree program.
- 9. Fee collection charges @Rs. 100/- per semester.

\* Tuition fee will be charged for the full semester instead of per credit hour. Disclaimer: The University reserves the right to change fee structure from time to time.

#### Contact information for gueries related to fee:

| Study Program                           | <u>(@)</u>            | 042-111880880<br>(Ext.) | 0304 111 0880<br>(Ext.) |
|---|-----------------------|-------------------------|-------------------------|
| Associate Degree, BA, BS & PGD programs | bs_fee@vu.edu.pk      | 433                     | 4330                    |
| Masters program                         | masters_fee@vu.edu.pk | 431                     | 3390                    |
| MS & Ph.D programs                      | ms_fee@vu.edu.pk      | 433                     | 4330                    |

#### Fee Information

## Fee for Overseas Students (in US \$)

| Degree Program                  | Admission<br>Fee<br>(one time) | Registration<br>Fee<br>(one time) | Enrollment<br>Fee Per<br>Semester | Tuition<br>Fee per<br>Cr. Hr. | Convocation<br>Fee<br>(one time<br>mandatory) |
|---------------------------------|--------------------------------|-----------------------------------|-----------------------------------|-------------------------------|---|
| МВА Тор-ир                      | 150                            | -                                 | 25                                | 50                            | -   |
| Associate Degree Programs       | 100                            | 50                                | 15                                | 35                            | 50  |
| Bachelors                       | 100                            | 50                                | 15                                | 35                            | 50  |
| BS                              | 100                            | 50                                | 15                                | 35                            | 50  |
| Masters                         | 100                            | 50                                | 15                                | 45                            | 50  |
| MS                              | 150                            | 50                                | 25                                | 50                            | 50  |
| Deficiency Semester(s)          | 100                            | -                                 | 15                                | 45                            | -   |
| Diploma                         | 100                            | 50                                | 15                                | 45                            | -   |
| Specialization Certificate      | 100                            | 50                                | 50                                | 45                            | -   |
| Zero Semester *                 | 100                            | -                                 | -                                 | * 330                         | -   |
| Zero Semester for MS Programs * | 100                            | -                                 | -                                 | * 550                         | -   |
| Short Courses *                 | 25                             | 25                                | -                                 | * 190                         | -   |

The revised fee structure is applicable to all students w.e.f. Fall 2016.

#### Notes:

- 1. Admission fee includes degree verification fee from the previous institution.
- 2. Entry Test (where applicable) will be charged @ USD 50/- and will be non-refundable.
- 3. Tuition fee @ \$45/- per credit hour will be charged from MS students enrolled in deficiency course(s).
- 4. On the enrollment of research /thesis work in MS programs, thesis fee @ \$200/- will be charged in addition to per credit hour tuition fee.
- 5. Convocation fee @ \$50/- will be charged in the final semester of the respective batch; the payment is mandatory to get transcript, degree and other certificates from the University.
- 6. Endowment fund contribution will be charged @\$10/- one time during entire degree program.
- \* Tuition fee will be charged for the full semester instead of per credit hour.

Disclaimer: The University reserves the right to change fee structure from time to time.

#### Contact information for queries related to fee:

| Mode of Study | <b>\$</b>              | +92 42 111880880<br>(Ext.) | +92 304 111 0880<br>(Ext.) |
|---------------|------------------------|----------------------------|----------------------------|
| Overseas      | overseas_fee@vu.edu.pk | 335                        | 3390                       |

## Schedule of Other Charges

| Sr #  | Fee Type   | Local<br>(Pak Rs.) | Overseas<br>(US\$) |
|-------|--|--------------------|--------------------|
|       | trar's Office  | (1 (111))          | (00¢)              |
| 1.    | ID Card (Duplicate)  | 500                | 20                 |
| 2.    | No Objection Certificate (NOC) / Migration Certificate   | 500                | 20                 |
| 3.    | Bonafide Certificate (Student/CGPA/ Statements about English /Project Completion)                    | 500                | 20                 |
| 4.    | Correction in Student's Profile  | 500                | 20                 |
| 5.    | Course Exemption / Transfer of Credit  | 1,000              | 25                 |
| 6.    | Issuance of Course Contents  | 1,000              | 25                 |
| 7.    | Readmission  | 2,000              | 50                 |
| 8.    | Semester Freeze  | 2,000              | 50                 |
| 9.    | Conversion/Change of Degree Program  | 2,000              | 50                 |
| 10.   | Study Program Change (Bachelors)   | 2,000              | 50                 |
| 11.   | Study Program Change (Masters)   | 4,000              | 100                |
| Exam  | nation   |                    |                    |
| 12.   | Rechecking   | 500                | 20                 |
| 13.   | Certificate Fee (for each qualified course)  | 500                | 20                 |
| 14.   | Verification Fee for Documents/ Degree   | 500                | 20                 |
| 15.   | Transcript Fee (Partial / Duplicate)   | 500                | 20                 |
| 16.   | Degree Fee (Urgent / Duplicate)  | 2,000              | 50                 |
| 17.   | Correction & Reissuance of Transcript & Set of Certificates -Before Issuance of Degree               | 1,000              | 25                 |
| 18.   | Correction & Reissuance of Degree, Transcript & Set of Certificates - After Issuance of Degree       | 3,000              | 75                 |
| 19.   | Date Sheet- Late Fee   | 500                | 20                 |
| 20.   | Date Sheet- Double Late Fee  | 1,000              | 25                 |
| 21.   | Rescheduling Fee (for each paper)  | 2,000              | 25                 |
| Recto | r's Office   |                    |                    |
| 22.   | Appeal Against Decision of Committee of Unfair Means/ Discipline Advisory Committee                  | 1,000              | 25                 |
| 23.   | Review Appeal Against the Decision of the Rector   | 2,000              | 50                 |
| Acade |  |                    |                    |
| 24.   | CS619-Late submission fee for Last deliverable of Final Year Project (within 15 days after due date) | 1,500              | 50                 |
| 24.   | CS619-Late submission fee for Last deliverable of Final Year Project (for next 15 days after         | 1,300              | 50                 |
| 25.   | extended date)   | 3,000              | 75                 |

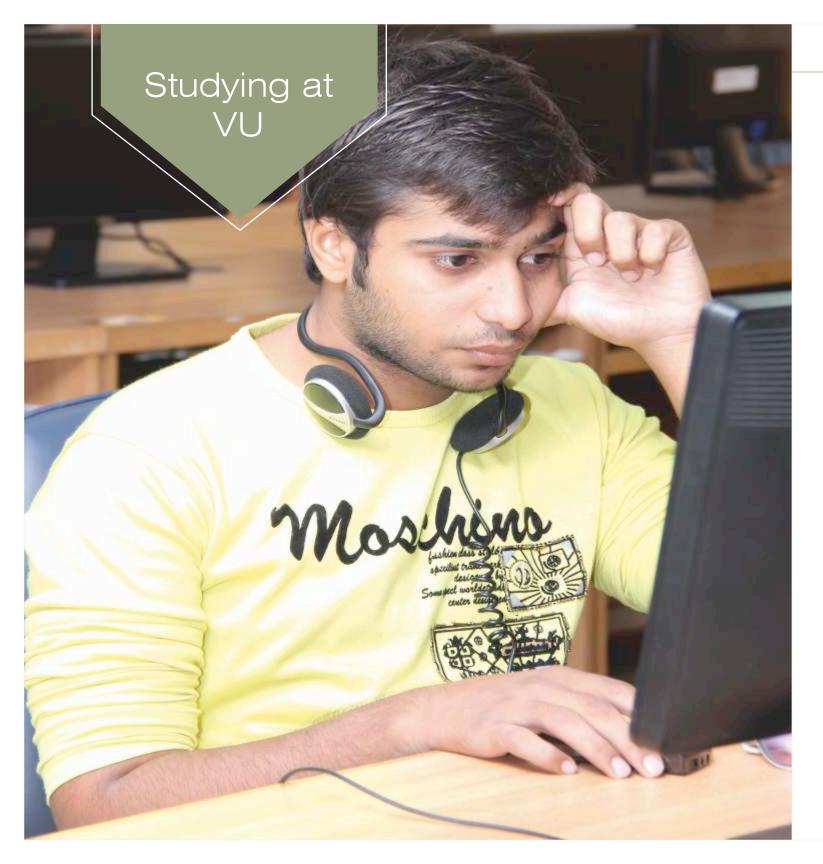
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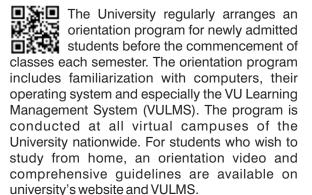
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Fee Information

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#### **Orientation Program**



#### Student Handbook

The Virtual University has developed and published a student handbook for providing complete understanding and hands on training about the study system at the University. The handbook explains in detail how a student can plan his/her study program and who to contact, in case of any difficulty observed during the studies. The handbook also includes the rules and regulations relevant to student activities. The handbook is an e-publication and available to all students through their VULMS accounts.

#### Academic Calendar



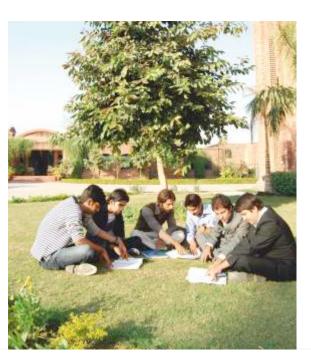
An academic year comprises of Fall and Spring semesters, each having at least 18 weeks duration. The Fall and Spring semesters commence in October and April of the following year respectively. Semester duration includes actual teaching time & conduct of examinations etc. The Academic calendar is published on VU website before the commencement of each semester.

#### Lecture Schedule

The University observes a formal semester system. Therefore, time-table for lectures is published at the start of each semester on the VU website and updated every week. The video lectures are broadcasted according to this time-table on VU TV channels. Students are expected to follow the schedule by attending lectures through any of the various modes available, on the specified date. However the unique flexibility offered by VU allows students to choose the time of lecture viewing at their own convenience.

#### **On-line Bookshop**

■ I Video lectures of all courses on multimedia DVDs and lecture handouts/notes in printed form are available at nominal cost from the VU online Book Shop. Lecture DVDs and Course Notes may be ordered on-line by visiting the VU Bookshop web site.



#### Learning Management System

The Learning Management System (VULMS) plays a critical role in the (VULMS) plays a critical role in the Virtual University's mode of study. Students are expected to master the VULMS as soon as possible after confirmation of their admission. Comprehensive details about the VULMS are provided in the orientation sessions and its associated videos.

The VULMS provides the following facilities to the students:

- · Maintain and update their personal profile
- Receive all sorts of notifications/ announcements from the University
- View lecture schedule
- Maintain diary (to-do-list) and notes
- Watch lecture videos and attend audio/video tutorials
- Download reading material
- Receive/ submit assignments
- Attempt guizzes
- · Interact with teachers/ peers using Moderated **Discussion Boards (MDBs)**
- Participate in Graded Discussion Boards (GDBs)
- View grade book/ progress report
- · View fee account details and obtain fee vouchers



Submit requests for various student services such as duplicate ID card, semester freeze/unfreeze, change of campus, issuance of transcript etc.

The VULMS can be accessed from the following link:

http://vulms.vu.edu.pk

#### Assessment and Evaluation

Students' evaluation is based on continuous The Virtual University of Pakistan awards gold medals to its graduates holding first position in selected study assessment throughout the semester by combining their performance in assignments, guizzes, Graded programs of their respective batch and grants merit Discussion Boards (GDBs), mid and final semester certificates to those who achieve top three positions. examinations. The mid and final term examinations In addition to this, the University also recognizes the are conducted at designated centers in a proctored efforts of those who secure highest grade in each environment and usually count for 80 to 85% of the faculty. total marks for a course.

#### **Examination System**

The Virtual University has developed computer based e-Examination system which allows its students to prepare their personalized date-sheet by giving them complete liberty to choose City, Exam Center, Day, Session and even the subject in which they intend to be examined during the mid & final term examinations. Both the examinations are conducted in span of 10 to 12 days. The system also facilitates the students to appear from overseas, in case of traveling abroad or vice versa. In other words, this unique and most flexible system is not less than a blessing especially for working students.

#### Scholarships & Financial Assistance

The Virtual University of Pakistan offers the following scholarships and financial assistance programs:

- Merit Scholarships
- Need-Based Scholarships
- Pakistan Bait-ul-Maal Stipends
- Syeda Mubarik Begum Scholarships
- Punjab Workers Welfare Board Scholarships

#### Medals and Merit Certificates



# Studying at VU

# Facuites Acacemic

# and Programs

The Virtual University of Pakistan consists of following faculties:

**Faculty of Arts** 

**Faculty of Computer Science and Information Technology** 

Faculty of Education

**Faculty of Management** 

Faculty of Science & Technology

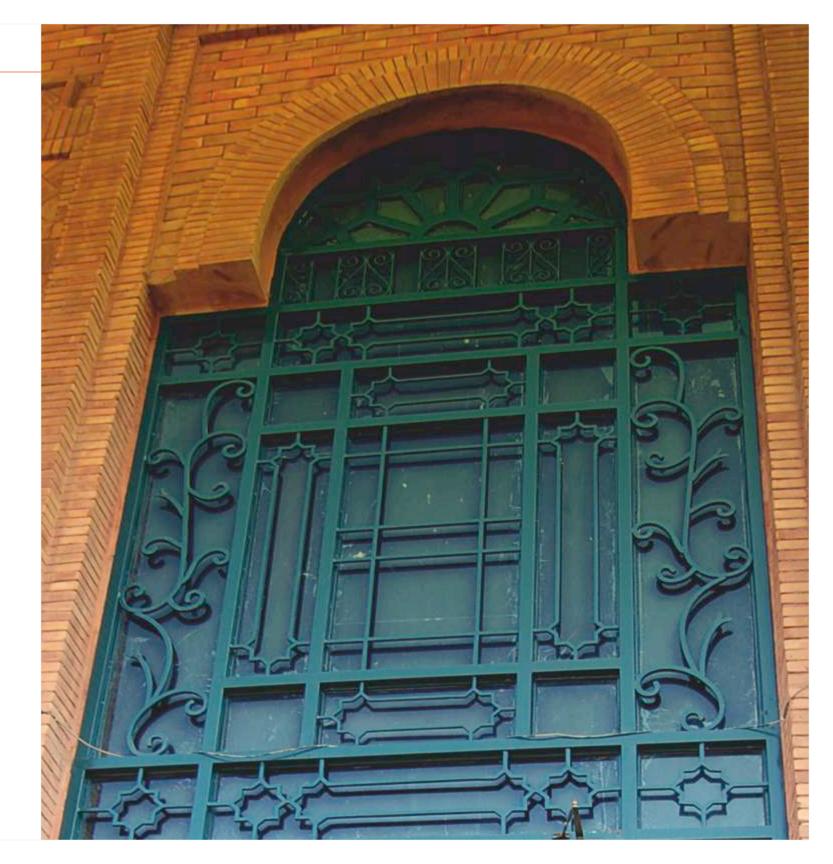
# Faculty of Arts

#### **Department of Psychology**

| <ul> <li>Masters (2-Year) Programs</li> <li>M.Sc. Applied Psychology</li> <li>M.Sc. Organizational Psychology</li> </ul> | <b>Page</b><br>23<br>25 |  |
|--|-------------------------|--|
| <ul> <li>Bachelor of Science (4-Year) Program</li> <li>BS (Psychology)</li> </ul>  | <b>m</b> 27             |  |
| <ul> <li>Bachelor (2-Year) Program</li> <li>BA Psychology</li> </ul>   | 29                      |  |
| <ul> <li>Post Graduate Diploma (1-Year) Prog</li> <li>PGD in Applied Psychology</li> </ul>                               | r <b>am</b><br>31       |  |
| <b>Department of Mass Commun</b>   | nication                |  |
| <ul> <li>Master (2-Year) Program</li> <li>M.Sc. Mass Communication</li> </ul>  | 33                      |  |
| <ul> <li>Bachelor of Science (4-Year) Program</li> <li>BS (Mass Communication)</li> </ul>                                | <b>m</b><br>35          |  |
| <ul> <li>Bachelor (2-Year) Program</li> <li>BA Mass Communication (BA)</li> </ul>  | 37                      |  |
| <ul> <li>Post Graduate Diploma (1-Year) Prog</li> <li>PGD in Television Production</li> </ul>                            | ram<br>39               |  |
| Joint / Multi Discipline   |                         |  |
| <ul> <li>Bachelor (2-Year) Program</li> <li>Bachelor of Arts (BA)</li> </ul>   | 41                      |  |
| Zero Semester  | 173                     |  |
| Certificate Courses  | 174                     |  |

#### NOTE

The Virtual University of Pakistan may add new course(s)/ subject(s) or replace existing ones at any time as a result of continuous review of scheme of studies of the programs in order to bring them at par with the courses being taught at top notch foreign universities. While reviewing the courses, needs of local industry and job markets are also given full consideration.



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#### **M.Sc. APPLIED PSYCHOLOGY**

Now-a-days, the field of Psychology is gaining a lot of attention and demand in the professional market, owing to the changing economic as well as cultural circumstances throughout the world. The psychologists are becoming an essential part of all the major spheres of market and industry globally. Every organization, no matter which domain it belongs to, is hiring psychologists to ensure the mental health of its valuable human resource. The same trend is becoming increasingly functional in Pakistan as well. In this regard, the demand for higher educational qualification in this field is also increasing. The M.Sc. (Applied Psychology) Program offers students with an excellent opportunity to gain in-depth knowledge for professional purposes. The program prepares graduates to enter or further continue their careers as professional psychologists in educational institutes, NGOs, armed forces and government as well as private sector etc.

#### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Discussion Boards (GDBs), mid-term and final-term exams. The mid/final - term exams are conducted at VU's designated exam centers and usually count 80% to 85% of the total marks of a course. The students are also required to submit a Final Project and give presentation which will be evaluated on "Pass/Fail" basis.

| Summary of Courses   |                |                     |  |  |  |
|----------------------|----------------|---------------------|--|--|--|
| Course Type          | No. of Courses | <b>Credit Hours</b> |  |  |  |
| Required Courses     | 19             | 57                  |  |  |  |
| Elective Courses     | 2              | 6                   |  |  |  |
| Internship / Project | 1              | 3                   |  |  |  |
| Total                | 22             | 66                  |  |  |  |

#### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree (14-year education) with 'Psychology' as an elective/major subject (or any other relevant equivalent qualification) from a recognized University/ Institute with a minimum of 45% marks or CGPA 2.00 out of 4.

Note:

- Candidates holding Bachelor (2-year) or equivalent degree in disciplines, other than those mentioned above, may enter after earning Post Graduate Diploma (PGD) in Applied Psychology from VU. Common qualified courses will be exempted to such candidates.
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- Candidates holding 2-year Bachelor's Degree from VU will only be allowed to continue seamlessly towards their respective 4-year BS Degree Program.

**DURATION: 2 years / 4 Semesters** 

#### **PROJECT/INTERNSHIP REPORT**

Students are required to complete a Project/ Internship Report of 3-credit hours in the final semester of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Students taking Internship course are required to complete 6 to 8 weeks internship in an organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

#### SCHEME OF STUDIES

| Code     | Title                                |   |
|----------|--------------------------------------|---|
| Semester | No 1                                 |   |
| PSY101   | Introduction to Psychology           | 3 |
| PSY404   | Abnormal Psychology                  | 3 |
| PSY405   | Personality Psychology               | 3 |
| PSY502   | History & Systems of Psychology      | 3 |
| STA630   | Research Methods                     | 3 |
|          |                                      |   |
| Semester | No 2                                 |   |
| PSY402   | Experimental Psychology              | 3 |
| PSY403   | Social Psychology                    | 3 |
| PSY504   | Cognitive Psychology                 | 3 |
| PSY610   | Neurological Bases of Behavior       | 3 |
| PSY631   | Psychological Testing & Measurements | 3 |
| PSY632   | Theory & Practice of Counseling      | 3 |
|          |                                      |   |

#### AWARD OF DEGREE

To be eligible for the award of M.Sc. Applied Psychology degree, the students are required to qualify the prescribed courses amounting to at least Sixty Six (66) credit hours with a Minimum Cumulative Grade Point Average (CGPA) of 2.00.

#### Faculty of Arts

| Code         | Title                                   | Cr. Hrs. |
|--------------|---|----------|
| Semester     | No 3                                    |          |
| MGT501       | Human Resource Management (Elective)    |          |
| PSY407       | Sport Psychology (Elective)             | 3        |
| (Option to s | elect one)                              |          |
| PSY408       | Health Psychology                       | 3        |
| PSY409       | Positive Psychology                     | 3        |
| PSY505       | Developmental Psychology                | 3        |
| PSY512       | Gender Issues in Psychology             | 3        |
| PSY515       | Cross Cultural Psychology               | 3        |
|              |   |          |
| Semester     | No 4                                    |          |
| PSY401       | Clinical Psychology                     | 3        |
| PSY406       | Educational Psychology (Elective)       |          |
| PSY513       | Forensic Psychology (Elective)          | 3        |
| (Option to s | elect one)                              |          |
| PSY510       | Organizational Psychology               | 3        |
| PSY514       | Consumer Psychology                     | 3        |
| PSY619       | Final Project-Psychology (Elective)     |          |
| PSYI619      | Internship Report-Psychology (Elective) | 3        |
|              |   |          |

(Option to select one)

#### M.Sc. ORGANIZATIONAL PSYCHOLOGY

Within the realm of organization and work environment, the importance of human resources can never be overlooked. Amalgamating psychology in this domain has resulted in enrichment of manpower of organizations/industries on the global level. The healthier the human resources of an organization are mentally, the richer the chances are for economic progress of that organization as well as the entire country. The need for such a collaboration is also increasing in our country and now many organizations are including professional psychologists in various areas of organizations i.e. recruitment, screening, evaluation, morale building, etc. The M.Sc. (Organizational Psychology) Program offers a vast area for the students to understand the peculiarities of organizational domain by viewing them from the lens of a psychologist.

#### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line guizzes, Graded Discussion Boards (GDBs), mid-term and final-term exams. The mid/final - term exams are conducted at VU's designated exam centers and usually count 80% to 85% of the total marks of a course. The students are also required to submit a Final Project and give presentation which will be evaluated on "Pass/Fail" basis.

| Summary of Courses                      |    |    |  |  |
|---|----|----|--|--|
| Course Type No. of Courses Credit Hours |    |    |  |  |
| <b>Required Courses</b>                 | 21 | 63 |  |  |
| Internship / Project                    | 1  | 3  |  |  |
| Total                                   | 22 | 66 |  |  |

#### AWARD OF DEGREE

To be eligible for the award of M.Sc. Organizational Psychology degree, the students are required to gualify the prescribed courses amounting to at least Sixty Six (66) credit hours with a Minimum CGPA of 2.00.

#### **PROJECT/INTERNSHIP REPORT**

#### **ADMISSION ELIGIBILITY CRITERIA**

Bachelor's degree (14-year education) with 'Psychology' as an elective subject, BBA (or any other relevant equivalent qualification) from a recognized University/ Institute with a minimum of 45% marks or CGPA 2.00 out of 4.

#### Note:

- Candidates holding bachelor's degree in any other disciplines other than mentioned above may enter through Post Graduate Diploma in Applied Psychology (PGD) from VU route.
- Candidates holding PGD in Applied Psychology from VU will be given course(s) exemptions accordingly upon continuation towards M.Sc. Organizational Psychology program.
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- Candidates holding 2-year Bachelor's Degree from VU will only be allowed to continue seamlessly towards their respective 4-year BS Degree Program.

#### **DURATION: 2 years / 4 Semesters**

Students are required to complete a Project/ Internship Report of 3-credit hours in the final semester of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Students taking Internship course are required to complete 6 to 8 weeks internship in an organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

#### SCHEME OF STUDIES

| Code   | Title   | Cr. Hrs           |
|--|---|-------------------|
| Semester   | No 1  |                   |
| MGT503   | Principles of Management  | 3                 |
| PSY101   | Introduction to Psychology  | 3                 |
| PSY504   | Cognitive Psychology  | 3                 |
| STA301   | Statistics and Probability  | 3                 |
| STA630   | Research Methods  | 3                 |
| Semester   | No 2  |                   |
| MCM301   | Communication skills  | 3                 |
| PSY402   | Experimental Psychology   | 3                 |
| PSY403   | Social Psychology   | 3                 |
| PSY405   | Personality Psychology  | 3                 |
| PSY511   | Environmental Psychology  | 3                 |
| PSY631   | Psychological Testing & Measurements  | 3                 |
| 0  |   |                   |
|  |   | -                 |
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#### Faculty of Arts

| Code    | Title                           | Cr. Hrs. |
|---------|---------------------------------|----------|
| emester | No 3                            |          |
| IGT501  | Human Resource Management       | 3        |
| IGT502  | Organizational Behaviour        | 3        |
| IGT504  | Organization Theory & Design    | 3        |
| 'SY409  | Positive Psychology             | 3        |
| SY512   | Gender Issues in Psychology     | 3        |
| 'SY632  | Theory & Practice of Counseling | 3        |
|         |                                 |          |

#### emester No 4

| IGMT611 | Human Relations                         | 3 |
|---------|---|---|
| IGMT623 | Leadership & Team Management            | 3 |
| SY510   | Organizational Psychology               | 3 |
| SY514   | Consumer Psychology                     | 3 |
| SY619   | Final Project-Psychology (Elective)     |   |
| SYI619  | Internship Report-Psychology (Elective) | 3 |

ption to select one



# **Department of Psychology**

#### **BS PSYCHOLOGY**

Psychology is the science of behavior and mind. In the BS program, the study of psychology provides an understanding of basic processes of sensation, perception, learning, cognition, development, and personality along with principles of social psychology, clinical psychology, and behavioral neuroscience. Knowledge of psychological principles and of scientific methods for evaluating theories and research in the social sciences is essential in our rapidly changing society. The basic goal of the BS program is to integrate the scientific foundation of psychology with a strong humanities background along with basic science to prepare better students for advanced training in psychology, medicine, cognitive science, neuroscience, and other related disciplines. The program explicitly helps prepare students for advanced graduate studies in the sciences and science-based professions.

#### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, Graded Discussion Boards (GDBs), mid-term and final term exams. The mid-term and final term exams are conducted at VU's designated centers and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                    |    |     |  |  |
|---------------------------------------|----|-----|--|--|
| Course Type No. of Courses Credit Hou |    |     |  |  |
| Required Courses                      | 44 | 129 |  |  |
| Internship / Project                  | 1  | 3   |  |  |
| Total                                 | 45 | 132 |  |  |

#### SCHEME OF STUDIES

| Code         | Title                             | Cr. Hrs. |
|--------------|-----------------------------------|----------|
| Semester     | No 1                              |          |
| CS101        | Introduction to Computing         | 3        |
| ENG101       | English Comprehension             | 3        |
| MTH302       | Business Mathematics & Statistics | 3        |
| PSY101       | Introduction to Psychology        | 3        |
| PAK301       | Pakistan Studies                  | 2        |
| ETH201       | Ethics (for Non-Muslims)          |          |
| ISL201       | Islamic Studies                   | 1        |
| (Option to s | elect one)                        |          |

#### **ADMISSION ELIGIBILITY CRITERIA**

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad.(www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 4 years / 8 Semesters** 

#### AWARD OF DEGREE

To be eligible for the award of BS (Psychology) Degree, a student is required to earn prescribed number of credit hours with a minimum CGPA of 2.00. Title Cr. Hrs. Code Semester No 2 ECO401 Economics 3 Business and Technical English Writing 3 ENG201 PSY404 Abnormal Psychology 3 PSY502 History & Systems of Psychology 3 SOC101 Introduction to Sociology 3

| Code       | Title                                 | Cr. Hrs. | Code       | Title                            | Cr. Hrs. |
|------------|---------------------------------------|----------|------------|----------------------------------|----------|
| Semester I | No 3                                  |          | Semester N | No 6                             |          |
| MCM301     | Communication skills                  | 3        | MGMT623    | Leadership & Team Management     | 3        |
| MGMT611    | Human Relations                       | 3        | MGT101     | Financial Accounting             | 3        |
| PSY403     | Social Psychology                     | 3        | MGT502     | Organizational Behaviour         | 3        |
| PSY405     | Personality Psychology                | 3        | PSY401     | Clinical Psychology              | 3        |
| STA630     | Research Methods                      | 3        | PSY505     | Developmental Psychology         | 3        |
|            |                                       |          | PSY512     | Gender Issues in Psychology      | 3        |
| Semester I | No 4                                  |          |            |                                  |          |
| MCM401     | Fundamentals of Public Relations      | 3        | Semester N | No 7                             |          |
| MGT503     | Principles of Management              | 3        | MGT501     | Human Resource Management        | 3        |
| PSY402     | Experimental Psychology               | 3        | PSY406     | Educational Psychology           | 3        |
| PSY610     | Neurological Bases of Behavior        | 3        | PSY510     | Organizational Psychology        | 3        |
| SOC401     | Cultural Anthropology                 | 3        | PSY511     | Environmental Psychology         | 3        |
|            |                                       |          | PSY513     | Forensic Psychology              | 3        |
| Semester I | No 5                                  |          | PSY632     | Theory & Practice of Counseling  | 3        |
| MGT111     | Introduction to Public Administration | 3        |            |                                  |          |
| MGT301     | Principles of Marketing               | 3        | Semester N | No 8                             |          |
| PSY409     | Positive Psychology                   | 3        | MCM511     | Theories of Communication        | 3        |
| PSY504     | Cognitive Psychology                  | 3        | PSY407     | Sport Psychology                 | 3        |
| PSY631     | Psychological Testing & Measurements  | 3        | PSY408     | Health Psychology                | 3        |
| STA301     | Statistics and Probability            | 3        | PSY514     | Consumer Psychology              | 3        |
|            |                                       |          | PSY515     | Cross Cultural Psychology        | 3        |
|            | CT/INTERNSHIP REPORT                  |          | XYZ619     | Internship Report/ Final Project | 3        |
| TICUL      |                                       |          |            |                                  |          |

#### PROJECT/INTERNSHIP REPORT

Students are required to complete a Project/ Internship Report of 3-credit hours in the final semester of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Student taking Internship course are required to complete 6 to 8 weeks internship in an organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

#### Faculty of Arts

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#### **BA PSYCHOLOGY**

The Bachelor of Arts in Psychology program is a regular 2-year degree program which has been designed to equip the students with requisite knowledge and skills to help them take an early start of their professional career so that they can earn their living and support their families too.

Note: Candidates holding 2-year Bachelor's Degree will only be allowed to continue seamlessly towards their respective 4–year BS Degree Program at a later stage in life.

#### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, Graded Discussion Boards (GDBs), mid-term and final term exams. The mid-term and final term exams are conducted at VU's designated centers and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses |                |                     |  |  |
|--------------------|----------------|---------------------|--|--|
| Course Type        | No. of Courses | <b>Credit Hours</b> |  |  |
| Required Courses   | 21             | 60                  |  |  |
| Total              | 21             | 60                  |  |  |

#### SCHEME OF STUDIES

| Code         | Title                             | Cr. Hrs |
|--------------|-----------------------------------|---------|
| Semester     | No 1                              |         |
| CS101        | Introduction to Computing         | 3       |
| ENG101       | English Comprehension             | 3       |
| MTH302       | Business Mathematics & Statistics | 3       |
| PSY101       | Introduction to Psychology        | 3       |
| PAK301       | Pakistan Studies                  | 2       |
| ETH201       | Ethics (for Non-Muslims)          |         |
| ISL201       | Islamic Studies                   | 1       |
| (Option to s | select one)                       |         |

#### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

#### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad.(www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

#### AWARD OF DEGREE

To be eligible for the award of BA in Psychology Degree, a student is required to earn prescribed number of credit hours with a minimum CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ECO401   | Economics                              | 3        |
| ENG201   | Business and Technical English Writing | 3        |
| PSY404   | Abnormal Psychology                    | 3        |
| SY502    | History & Systems of Psychology        | 3        |
| SOC101   | Introduction to Sociology              | 3        |
|          |  |          |

| Code     | Title                  | Cr. Hrs. | Code     | Title                            | Cr. Hrs. |
|----------|------------------------|----------|----------|----------------------------------|----------|
| Semester | No 3                   |          | Semester | No 6                             |          |
| MCM301   | Communication skills   | 3        | MCM401   | Fundamentals of Public Relations | 3        |
| MGMT611  | Human Relations        | 3        | MGT503   | Principles of Management         | 3        |
| PSY403   | Social Psychology      | 3        | PSY402   | Experimental Psychology          | 3        |
| PSY405   | Personality Psychology | 3        | PSY610   | Neurological Bases of Behavior   | 3        |
| STA630   | Research Methods       | 3        | SOC401   | Cultural Anthropology            | 3        |
|          |                        |          |          |                                  |          |



#### Faculty of Arts

# **Department of Psychology**

#### PGD IN APPLIED PSYCHOLOGY

Post Graduate Diploma in Applied Psychology has been designed with a core purpose of developing skilled individuals for the field of psychology. This study program will help tackling with rising mental health problems by producing skilled competent professionals for the field. The program is especially helpful for all psychology graduates, non-psychology graduates, doctors, nurses, social workers and other specialists serving in public/private sector organizations like NGOs or those intend to pursue their higher studies in the field of Psychology but have no previous subject knowledge. Students seeking their career in Applied Psychology can also be the wonderful beneficiaries of this program.

#### Note:

• Upon successful completion of PGD in Applied Psychology the students will be eligible to seek admission towards M.Sc. Psychology program and will be given exemptions in already qualified common courses.

#### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, Graded Discussion Boards (GDBs), mid-term and final term exams. The mid-term and final term exams are conducted at VU's designated centers and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |   |    |  |  |  |
|---|---|----|--|--|--|
| Course Type No. of Courses Credit Hours |   |    |  |  |  |
| <b>Required Courses</b>                 | 8 | 24 |  |  |  |
| Total                                   | 8 | 24 |  |  |  |

#### SCHEME OF STUDIES

| Code     | Title                           | Cr. Hrs. |
|----------|---------------------------------|----------|
| Semester | No 2                            |          |
| PSY101   | Introduction to Psychology      | 3        |
| PSY404   | Abnormal Psychology             | 3        |
| PSY502   | History & Systems of Psychology | 3        |
| STA630   | Research Methods                | 3        |

#### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4.

Note:

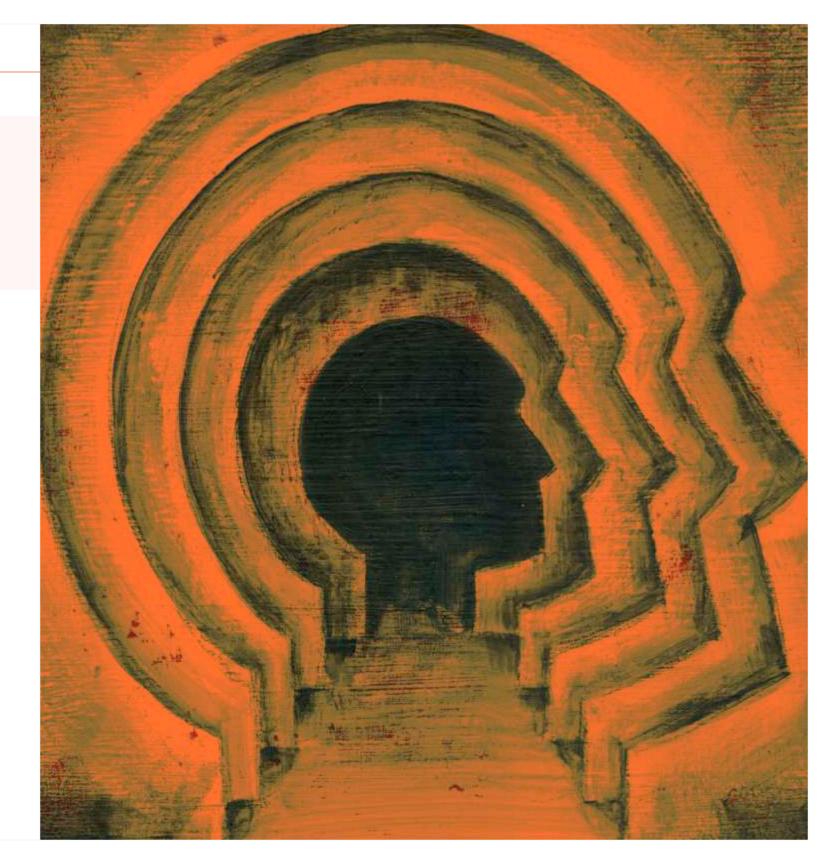
 Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 1 year / 2 Semesters** 

#### AWARD OF DIPLOMA

To be eligible for the award of Post Graduate Diploma in Applied Psychology, students are required to complete course work program (minimum two semesters) of at least 24 credit hours course work with minimum CGPA 2.00.

| Code     | Title                           | Cr. Hrs. |
|----------|---------------------------------|----------|
| Semester | No 2                            |          |
| PSY402   | Experimental Psychology         | 3        |
| PSY403   | Social Psychology               | 3        |
| PSY405   | Personality Psychology          | 3        |
| PSY632   | Theory & Practice of Counseling | 3        |



#### **M.Sc. MASS COMMUNICATION**

Master's program in Mass Communication aims to provide learners a sound theoretical knowledge in the field of mass media. Whether it is the mushroom growth of TV channels in the country or increasing trend of online journalism along with all-time reliable print media, mass communication is expanding on a fast pace in its all dimensions. Thus it is expected to be a golden opportunity for those who are aspiring to work as broadcast journalists, reporters and producers in Television, Radio or Newspapers. Professionals, already associated to this field can also opt for this program in order to enhance their gualification. This study program will equip the students with reporting techniques, stages of news production, media laws and behind the camera operations in order to achieve professional competence demanded by the industry.

#### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                    |                                |  |  |  |  |
|---------------------------------------|--------------------------------|--|--|--|--|
| Course Type No. of Courses Credit Hou |                                |  |  |  |  |
| 18                                    | 54                             |  |  |  |  |
| 3                                     | 9                              |  |  |  |  |
| 1                                     | 3                              |  |  |  |  |
| 22                                    | 66                             |  |  |  |  |
|                                       | No. of Courses<br>18<br>3<br>1 |  |  |  |  |

| Specialization Courses |     |   |  |  |  |
|------------------------|-----|---|--|--|--|
| Electronic Media       | 3/3 | 9 |  |  |  |
| Print Media            | 3/3 | 9 |  |  |  |

#### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree equivalent to 14-year education from a recognized University/Institute with at least 45% marks or CGPA 2.00 out of 4. Note:

- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- Candidates holding 2-year Bachelor's Degree from VU will only be allowed to continue seamlessly towards their respective 4-year BS Degree Program at a later stage in life.

**DURATION: 2 years / 4 Semesters** 

#### AWARD OF DEGREE

To be eligible for the award of M.Sc. Mass Communication degree, the students are required to qualify the prescribed courses amounting to at least Sixty Six (66) credit hours with a Minimum Cumulative Grade Point Average (CGPA) of 2.00.

#### **PROJECT/INTERNSHIP REPORT**

Students are required to complete a Project/ Internship Report of 3-credit hours in the final semester of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Student taking Internship course are required to complete 6 to 8 weeks internship in an organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

#### SCHEME OF STUDIES

| Code                  | Title                                      | Cr. Hrs. | Code          | Title                                      | Cr. Hrs. |
|-----------------------|--|----------|---------------|--|----------|
| Semester              | No 1                                       |          | Semester      | No 3                                       |          |
| MCM101                | Introduction to Mass Communication         | 3        | MCM431        | Development Communication                  | 3        |
| MCM301                | Communication skills                       | 3        | MCM501        | Advertising for Print and Electronic Media | 3        |
| MCM304                | Mass Media in Pakistan                     | 3        | MCM511        | Theories of Communication                  | 3        |
| MCM311                | Reporting and Sub-Editing                  | 3        | MCM604        | International Communication                | 3        |
| MCM531                | Community Journalism                       | 3        | PSY403        | Social Psychology                          | 3        |
| PSC201                | International Relations                    | 3        | STA630        | Research Methods                           | 3        |
| Semester              | No 2                                       |          | Semester      | No 4                                       |          |
| MCM401                | Fundamentals of Public Relations           | 3        | MCM310        | Journalistic Writing                       | 3        |
| MCM411                | Introduction to Broadcasting               | 3        | MCM532        | Magazine Journalism                        | 3        |
| MCM514                | Feature & Column Writing                   | 3        | MCM601        | Media Management                           | 3        |
| MCM520                | Contemporary Mass Media                    | 3        | (Print Media  | Specialization Courses)                    |          |
| MCM610                | Mass Communication Law & Ethics            | 3        | MCM515        | Radio News Reporting & Production          | 3        |
| SOC101                | Introduction to Sociology                  | 3        | MCM516        | TV News Reporting & Production             | 3        |
| AREAS                 | S OF SPECIALIZATION                        |          | MCM517        | Online Journalism                          | 3        |
| The stu               | dents are required to select an            | area of  | (Electronic l | Media Specialization Courses)              |          |
| specializ<br>last sem | zation from the options given below ester. | in their | MCM619        | Final Project-Mass Communication           |          |
| • Print               | Media                                      |          | MCMI619       | Internship Report-Mass Communication       | 3        |
| • Elect               | Electronic Media                           |          |               | elect one)                                 |          |

| ICM520 | Contemporary Mass Media         | 3 |
|--------|---------------------------------|---|
| ICM610 | Mass Communication Law & Ethics | 3 |
| OC101  | Introduction to Sociology       | 3 |
|        |                                 |   |

- Electronic Media

#### Faculty of Arts

#### **BS MASS COMMUNICATION**

The BS Mass Communication Program strives to provide students with a creative, diverse, and challenging academic environment that encourages risk-taking and promotes an examination of human values, cultural differences, and social questions and to prepare students for areas in the print and telecommunications media sectors.

#### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, Graded Discussion Boards (GDBs), mid-term and final term exams. The mid-term and final term exams are conducted at VU's designated centers and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |     |  |  |  |
|---|----|-----|--|--|--|
| Course Type No. of Courses Credit Hours |    |     |  |  |  |
| <b>Required Courses</b>                 | 44 | 129 |  |  |  |
| Internship / Project                    | 1  | 3   |  |  |  |
| Total                                   | 45 | 132 |  |  |  |

#### SCHEME OF STUDIES

| Code                            | de Title                                  |   |  |
|---------------------------------|---|---|--|
| Semester                        | No 1                                      |   |  |
| CS101                           | Introduction to Computing                 | 3 |  |
| ENG101                          | English Comprehension                     | 3 |  |
| MCM101                          | ICM101 Introduction to Mass Communication |   |  |
| MCM401                          | Fundamentals of Public Relations          | 3 |  |
| PAK301                          | 301 Pakistan Studies                      |   |  |
| ETH201 Ethics (for Non-Muslims) |   |   |  |
| ISL201 Islamic Studies          |   | 1 |  |
| (Option to select one)          |   |   |  |

#### **ADMISSION ELIGIBILITY CRITERIA**

Intermediate (equivalent to 12 years of education) with at least 45% marks.

- Note:
- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad.(www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 4 years / 8 Semesters** 

#### AWARD OF DEGREE

To be eligible for the award of BS Mass Communication Degree, a student is required to earn prescribed number of credit hours with a minimum CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs |
|----------|--|---------|
| Semester | No 2                                   |         |
| ECO401   | Economics                              | 3       |
| ENG201   | Business and Technical English Writing | 3       |
| MCM411   | Introduction to Broadcasting           | 3       |
| MGT211   | Introduction to Business               | 3       |
| SOC101   | Introduction to Sociology              | 3       |

| Code        | Title                                      | Cr. Hrs. | Code       | Title                            | Cr. Hrs. |
|-------------|--|----------|------------|----------------------------------|----------|
| Semester    | No 3                                       |          | Semester I | No 6                             |          |
| MCM301      | Communication skills                       | 3        | MCM514     | Feature & Column Writing         | 3        |
| MCM311      | Reporting and Sub-Editing                  | 3        | MCM532     | Magazine Journalism              | 3        |
| MCM511      | Theories of Communication                  | 3        | MGT502     | Organizational Behaviour         | 3        |
| MCM515      | Radio News Reporting & Production          | 3        | PSC401     | Public International Law         | 3        |
| MGT301      | Principles of Marketing                    | 3        | STA301     | Statistics and Probability       | 3        |
|             |  |          | STA630     | Research Methods                 | 3        |
| Semester    | No 4                                       |          |            |                                  |          |
| MCM304      | Mass Media in Pakistan                     | 3        | Semester I | No 7                             |          |
| MCM310      | Journalistic Writing                       | 3        | IT430      | E-Commerce                       | 3        |
| MCM431      | Development Communication                  | 3        | MCM520     | Contemporary Mass Media          | 3        |
| MCM501      | Advertising for Print and Electronic Media | 3        | MCM531     | Community Journalism             | 3        |
| MCM516      | TV News Reporting & Production             | 3        | MCM604     | International Communication      | 3        |
|             |  |          | MGMT611    | Human Relations                  | 3        |
| Semester    | No 5                                       |          | MGT501     | Human Resource Management        | 3        |
| MGT101      | Financial Accounting                       | 3        |            |                                  |          |
| MGT111      | Introduction to Public Administration      | 3        | Semester I | No 8                             |          |
| MGT201      | Financial Management                       | 3        | MCM517     | Online Journalism                | 3        |
| MGT503      | Principles of Management                   | 3        | MCM601     | Media Management                 | 3        |
| MTH302      | Business Mathematics & Statistics          | 3        | MCM610     | Mass Communication Law & Ethics  | 3        |
| PSY101      | Introduction to Psychology                 | 3        | PSC201     | International Relations          | 3        |
|             |  |          | SOC401     | Cultural Anthropology            | 3        |
|             |  |          | XYZ619     | Internship Report/ Final Project | 3        |
| <b>LUDE</b> | CT/INTERNSHIP REPORT                       |          |            |                                  |          |

#### PROJECT/INTERNSHIP REPORT

Students are required to complete a Project/ Internship Report of 3-credit hours in the final semester of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Student taking Internship course are required to complete 6 to 8 weeks internship in an organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

#### Faculty of Arts

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#### **BA MASS COMMUNICATION**

The Bachelor of Arts in Mass Communication program is a regular 2-year degree program which has been designed to equip the students with requisite knowledge and skills which would help them take an early start of their professional career so that they can earn their living and support their families too.

Note: Candidates holding 2-year Bachelor's Degree will only be allowed to continue seamlessly towards their respective 4–year BS Degree Program.

#### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, Graded Discussion Boards (GDBs), mid-term and final term exams. The mid-term and final term exams are conducted at VU's designated centers and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses      |                |                     |
|-------------------------|----------------|---------------------|
| Course Type             | No. of Courses | <b>Credit Hours</b> |
| <b>Required Courses</b> | 21             | 60                  |
| Total                   | 21             | 60                  |

#### SCHEME OF STUDIES

| Code         | Title                              | Cr. Hrs. |
|--------------|------------------------------------|----------|
| Semester     | No 1                               |          |
| CS101        | Introduction to Computing          | 3        |
| ENG101       | English Comprehension              | 3        |
| MCM101       | Introduction to Mass Communication | 3        |
| MCM401       | Fundamentals of Public Relations   | 3        |
| PAK301       | Pakistan Studies                   | 2        |
| ETH201       | Ethics (for Non-Muslims)           |          |
| ISL201       | Islamic Studies                    | 1        |
| (Option to s | elect one)                         |          |

#### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

#### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad.(www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

#### AWARD OF DEGREE

To be eligible for the award of BA in Mass Communication Degree, a student is required to earn prescribed number of credit hours with a minimum CGPA of 2.00.

| 3         |
|-----------|
| Writing 3 |
| 3         |
| 3         |
| 3         |
|           |

| Code     | Title                             | Cr. Hrs. | Code     | Title                                      | Cr. Hrs. |
|----------|-----------------------------------|----------|----------|--|----------|
| Semester | No 3                              |          | Semester | No 6                                       |          |
| MCM301   | Communication skills              | 3        | MCM304   | Mass Media in Pakistan                     | 3        |
| MCM311   | Reporting and Sub-Editing         | 3        | MCM310   | Journalistic Writing                       | 3        |
| MCM511   | Theories of Communication         | 3        | MCM431   | Development Communication                  | 3        |
| MCM515   | Radio News Reporting & Production | 3        | MCM501   | Advertising for Print and Electronic Media | 3        |
| MGT301   | Principles of Marketing           | 3        | MCM516   | TV News Reporting & Production             | 3        |
|          |                                   |          |          |  |          |



#### Faculty of Arts

# Department of Mass Communication

#### POST GRADUATE DIPLOMA IN TELEVISION PRODUCTION

The Department of Mass Communication in collaboration with Virtual University Television Network (VUTV) offers Post Graduate Diploma in TV production. The key features of the program are to bring top notch performers and technicians of Television industry in forefront for imparting theoretical knowledge strongly backed by their wide expertise of the field. The diploma program is expected to be a great area of interest in general for students of Mass Communication who aspire to have bright future in electronic media and in particular to working professionals who intend to improve their qualification within their tough work routine. Having a full-fledged & developed set-up of TV station for the hands on training of the students, Virtual University's diploma program would have an edge over other universities' programs with reference to providing a sound field exposure to its prospect students.

#### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, Graded Discussion Boards (GDBs), mid-term and final term exams. At the end of the final semester students would be required to submit a documentary/short film (Project).

| Summary of Courses                   |   |    |  |
|--------------------------------------|---|----|--|
| Course Type No. of Courses Credit Ho |   |    |  |
| Required Courses                     | 8 | 24 |  |
| Final Project                        | 1 | 6  |  |
| Total                                | 9 | 30 |  |

#### SCHEME OF STUDIES

| Code     | Title                                   | Cr. Hrs. |
|----------|---|----------|
| Semester | No 2                                    |          |
| MCD401   | Camera basics, principles and practices | 3        |
| MCD402   | Lighting for TV Production              | 3        |
| MCD501   | TV Direction                            | 3        |
| MCD502   | Script Writing                          | 3        |
| MCD504   | Acting and Performance                  | 3        |

#### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4.

However, candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 1 year / 2 Semesters** 

#### AWARD OF DIPLOMA

To be eligible for the award of PGD in TV Production, students are required to complete course work program of at least 30 credit hours with a minimum CGPA of 2.00.

| 3 |
|---|
| 3 |
| 3 |
| 6 |
|   |

#### **FINAL PROJECT**

Final project will either be a documentary or a short telefilm produced by students. For this purpose, students will be engaged in idea conception, scriptwriting, shooting videos and finally going through post production stages before submitting their finalized product. It would be a group activity and two to three students may join together to make a group. A panel comprising professionals of VUTV and members from academic staff would evaluate the final projects of the students



#### **BACHELOR OF ARTS**

The Bachelor of Arts (BA) program is a regular 2-year degree program in which students are offered with a combination of any two of areas from the available electives/ Majors: Business, Journalism, Psychology, Computer Science and Education. After successful completion of two-year BA, students have an option to continue 4-Year BS Commerce/ BS Psychology/ BS Mass Communication or BS Computer Science by taking remaining credit hours in at least 4-semesters.

Note: Candidates holding 2-year Bachelor's Degree will only be allowed to continue seamlessly towards their respective 4–year BS Degree Program at a later stage in life.

#### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, Graded Discussion Boards (GDBs), mid-term and final term exams. The mid-term and final term exams are conducted at VU's designated centers and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses |                |                     |  |
|--------------------|----------------|---------------------|--|
| Course Type        | No. of Courses | <b>Credit Hours</b> |  |
| Required Courses   | 13             | 36                  |  |
| Elective/ Major 1  | 4              | 12                  |  |
| Elective/ Major 2  | 4              | 12                  |  |
| Total              | 22             | 60                  |  |

#### **ADMISSION ELIGIBILITY CRITERIA**

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad.(www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

To be eligible for the award of Bachelor of Arts

Degree, a student is required to earn prescribed number of credit hours with a

minimum Cumulative Grade Point Average

AWARD OF DEGREE

(CGPA) of 2.00.

#### **ELECTIVES/ MAJORS**

The students are required to select two elective/ major areas from the following, where each area comprises four courses:

- Business
- Journalism
- Psychology
- Computer Science
- Education

#### SCHEME OF STUDIES

| Code         | Title                                  | Cr. Hrs. |
|--------------|--|----------|
| Semester     | No 1                                   |          |
| CS001        | VU-Computer Proficiency License        | 3        |
| ENG101       | English Comprehension                  | 3        |
| MGT211       | Introduction to Business               | 3        |
| SOC101       | Introduction to Sociology              | 3        |
| PAK301       | Pakistan Studies                       | 2        |
| ETH201       | Ethics (for Non-Muslims)               | 1        |
| ISL201       | Islamic Studies                        | 1        |
| (Option to s | elect one)                             |          |
| Semester     | No 2                                   |          |
| CS101        | Introduction to Computing              | 3        |
| ECO401       | Economics                              | 3        |
| ENG201       | Business and Technical English Writing | 3        |
| MGT111       | Introduction to Public Administration  | 3        |
| PSY101       | Introduction to Psychology             | 3        |
| Semester     | No 3                                   |          |
| ENG301       | Business Communication                 | 3        |
| MGT101       | Financial Accounting                   | 3        |
| MGT301       | Principles of Marketing                | 3        |
| (Business E  | lective/ Major Courses)                |          |
| MCM101       | Introduction to Mass Communication     | 3        |
| MCM310       | Journalistic Writing                   | 3        |
| (Journalism  | Elective/ Major Courses)               |          |
| PSY403       | Social Psychology                      | 3        |

#### Faculty of Arts

| Code        | Title  | Cr. Hrs. |
|-------------|--|----------|
| Semester    | No 3   |          |
| PSY502      | History & Systems of Psychology              | 3        |
| Psychology  | / Elective/ Major Courses                    |          |
| CS201       | Introduction to Programming                  | 3        |
| CS304       | Object Oriented Programming                  | 3        |
| Computer    | Science Elective/ Major Courses)             |          |
| EDU201      | Learning Theories                            | 3        |
| EDU301      | General Methods of Teaching                  | 3        |
| Education I | Elective/ Major Courses)                     |          |
| Semester    | No 4   |          |
| ENG401      | Intro. to Literature: Short Story and Poetry | 3        |
| /IGT503     | Principles of Management                     | 3        |
| MTH302      | Business Mathematics & Statistics            | 3        |
| Business E  | lective/ Major Courses)                      |          |
| MCM311      | Reporting and Sub-Editing                    | 3        |
| VCM401      | Fundamentals of Public Relations             | 3        |
| Journalism  | Elective/ Major Courses)                     |          |
| PSY401      | Clinical Psychology                          | 3        |
| PSY512      | Gender Issues in Psychology                  | 3        |
| Psychology  | / Elective/ Major Courses)                   |          |
| CS403       | Database Management Systems                  | 3        |
| CS507       | Information Systems                          | 3        |
| Computer S  | Science Elective/ Major Courses)             |          |
| EDU305      | Classroom Management                         | 3        |
| EDU405      | Classroom Assessment                         | 3        |
| Education   | Elective/ Major Courses)                     |          |
|             |  |          |

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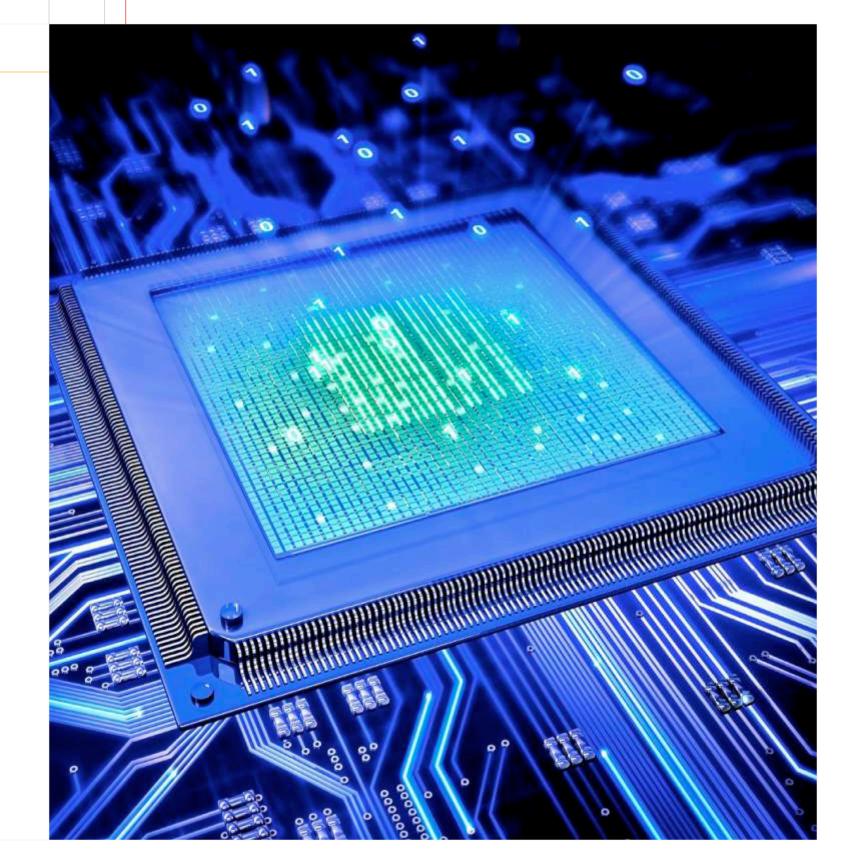
# Faculty of Computer Science and Information Technology

#### Department of Computer Science and Information Technology

| • | Master of Science (2–Year) Program <ul> <li>MS Computer Science</li> </ul>  | <b>Page</b><br>45 |
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| • | <ul> <li>Masters (2-Year) Programs</li> <li>Master of Computer Science</li> <li>Master of Information Technology</li> </ul>   | 47<br>49          |
| • | <ul> <li>Bachelor of Science (4–Year) Programs</li> <li>BS Computer Science</li> <li>BS Information Technology</li> <li>BS Software Engineering</li> </ul>              | 51<br>53<br>55    |
| • | <ul><li>Bachelors (2-Year) Program</li><li>B.Sc. Computer Science</li></ul>   | 57                |
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| • | Certificate Courses   | 174               |

#### NOTE

The Virtual University of Pakistan may add new course(s)/ subject(s) or replace existing ones at any time as a result of continuous review of scheme of studies of the programs in order to bring them at par with the courses being taught at top notch foreign universities. While reviewing the courses, needs of local industry and job markets are also given full consideration.



#### **MASTER OF SCIENCE IN COMPUTER SCIENCE** [With Thesis OR Course Work]

Master of Science in Computer Science (MSCS) is being offered by the Department of Computer Science and Information Technology within and outside Pakistan. The program is designed to produce academicians and professionals of high quality. The designed course work provides depth and breath-based knowledge of core computer science areas. Moreover specialization courses enable students to develop advanced expertise in their chosen area of specialization. Currently, three specializations are being offered:

- Computer Networks
- Databases
- Software Engineering
- Note: Upon completion of at least 18-credit hours of course work in MSCS degree program, limited number of seats will be available to students on merit for Thesis/ Research Work. Other students can complete their degree program by choosing course work track option.

#### ASSESSMENT OF STUDY PROGRESS:

Students' study progress is evaluated continuously throughout the semester using the assessment tools as described below. The mid-term and final-term exams are conducted at VU's designated exam centers.

| ASSESSMENT TOOL       | MARKS |
|-----------------------|-------|
| Assignments           | 20    |
| Academic Paper        | 15    |
| Seminar/ Presentation | 05    |
| Mid-Term Exam         | 30    |
| Final-Term Exam       | 30    |
| TOTAL                 | 100   |

| Summary                  | of Courses |         |
|--------------------------|------------|---------|
|                          | No of      |         |
| Course Type              | Courses    | Cr Hrs. |
| Required Courses         | 2          | 6       |
| Elective Courses         | 6          | 18      |
| Thesis OR Courses        | 1 / 2      | 6       |
| Total                    |            | 30      |
|                          |            |         |
| Specialization Courses   |            |         |
| Computer Networks *      | 3/6        | 9       |
| Databases **             | 3/3        | 9       |
| Software Engineering *** | 3/5        | 9       |

#### ADMISSION ELIGIBILITY CRITERIA

16-year of education, i.e., BS in Computer Science/ BS in Information Technology/ Bachelor of Computer Science (Hons)/Master of Computer Science/ Master of Information Technology/ M.Sc. (Computer Science) from a recognized institution with first division or CGPA of 2.5 out of 4.

#### Note:

- Candidates having Computer Engineering / Bachelor of Science in Software Engineering / Bachelor of Engineering in Information Technology / Bachelor of Engineering (Computer & Information System) / B.Sc. Computer System Engineering (16-year education) from a recognized institution are also eligible but have to qualify deficiency course(s).
- Each candidate is required to pass the University's Entry Test (with minimum 50% marks).
- Candidates having less than 1st division or CGPA below 2.50 out of 4 will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

#### SCHEME OF STUDIES

| Code    | Title                                   | Cr. Hrs. |
|---------|---|----------|
| Semeste | r No 1                                  |          |
| CS701   | Theory of Computation                   | 3        |
| CS702   | Advanced Algorithms Analysis and Design | 3        |
| CS710   | Mobile and Pervasive Computing *        | 3        |
| CS712   | Distributed DBMS **                     | 3        |
| CS706   | Software Quality Assurance ***          | 3        |

#### Semester No 2

| CS703 | Advanced Operating Systems           | 3 | ( |
|-------|--------------------------------------|---|---|
| CS704 | Advanced Computer Architecture-II    | 3 | ( |
| CS726 | Information Retrieval Techniques **  | 3 | ( |
| CS716 | Advanced Computer Networks *         | 3 | ( |
| CS708 | Software Requirement Engineering *** | 3 |   |

#### **GUIDELINES FOR THESIS ENROLLMENT:**

- A merit list will be calculated before the start of course selection in each semester for the students. The basic criteria for the merit will be the completion of minimum 18 MS level credit hours with CGPA ≥ 2.75. Limited number of seats on merit will be offered to enroll thesis research. In case, a student, eligible for the thesis, opts to take the course work-only then the next student in the merit list will be offered the choice to enroll thesis research.
- After enrolling Thesis Research, a student may decide at any stage switch to the course work-only option.

| Code    | Title                                      | Cr. Hrs. |
|---------|--|----------|
| Semeste | r No 3                                     |          |
| CS718   | Wireless Networks *                        | 3        |
| CS723   | Probability and Stochastic Processes *     | 3        |
| CS713   | Object Oriented DBMS **                    | 3        |
| CS709   | Formal Methods for Software Engineering ** | * 3      |
| CS720   | Thesis                                     | 6        |
| Semeste | r No 4                                     |          |
| CS707   | Network Security *                         | 3        |
| CS721   | Network Performance Evaluation *           | 3        |
| CS711   | Software Design ***                        | 3        |
| CS724   | Software Process Improvement ***           | 3        |
|         |  |          |

#### AWARD OF DEGREE

**Thesis Track:** To become eligible for the award of MSCS degree, a student is required to complete at least 24-credit hour prescribed course work and 6-credit hour Thesis Research with minimum CGPA of 2.50 out of 4.

#### OR

**Course Work Track:** To become eligible for the award of MSCS degree, a student is required to complete at least 30-credit hour prescribed course work with minimum CGPA of 2.50 out of 4.

#### **MASTER OF COMPUTER SCIENCE (MCS)**

The Department of Computer Science and Information Technology offers a two-year MCS program which has been designed specially for those who wish to enter this highly exciting and challenging field to meet the growing need of computer science experts in the rapidly evolving 21st century job market. The program provides a strong technological base that will enable the graduates to capitalize on the increasing career opportunities in this sector. This specialization provides a highly demanded expertise, great mobility, flexibility, and an impressive range of possible career choices in the industry.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summar           | y of Courses     |         |
|------------------|------------------|---------|
| Course Type      | No of<br>Courses | Cr Hrs. |
| Required Courses | 22               | 66      |
| Project          | 1                | 6       |
| Total            | 23               | 72      |

#### AWARD OF DEGREE

To become eligible for the award of MCS degree, students are required to qualify prescribed courses amounting to at least 72 credit hours with a minimum CGPA of 2.00.

#### PROJECT

Students are required to complete a project of 6 credit hours in the final year of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor / supervisor is compulsory. Students have to submit a detailed write-up of the project and may be required to give a presentation.

#### ADMISSION ELIGIBILITY CRITERIA

Bachelor degree from a recognized university/ institute in any of the following subject: Mathematics, Physics, Computer Science, Commerce, Statistics, Economics, Engineering wherein two courses must be from the same department in a semester system or at least 150 marks weightage under annual system. Candidate must have at least 45% marks or CGPA 2.00 out of 4.

#### Note:

- Candidate holding PGD in Computer & Information Technology, PGD in Business Administration dually issued by the recognized Institute / University are eligible for admission towards MCS Program.
- Candidates who have not studied any one of the required above-mentioned subjects in their graduation are eligible for admission provided they first qualify "Deficiency Semester for MCS/ MIT".
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester". Whereas those who have not studied above mentioned required subjects must qualify the "Deficiency Semester for MCS/ MIT" as well.
- Candidates holding 2-year Bachelor's Degree from VU will only be allowed to continue seamlessly towards their respective 4-year BS Degree Program.

**DURATION: 2 years / 4 Semesters** 

#### SCHEME OF STUDIES

| Code     | Title                                  | Cr. Hrs. | Code    | Title                         | Cr. Hrs |
|----------|--|----------|---------|-------------------------------|---------|
| Semester | No 1                                   |          | Semeste | r No 3                        |         |
| CS201    | Introduction to Programming            | 3        | CS501   | Advance Computer Architecture | 3       |
| CS402    | Theory of Automata                     | 3        | CS502   | Fundamentals of Algorithms    | 3       |
| CS601    | Data Communication                     | 3        | CS504   | Software Engineering - I      | 3       |
| ENG201   | Business and Technical English Writing | 3        | CS610   | Computer Network              | 3       |
| MTH202   | Discrete Mathematics                   | 3        | CS614   | Data Warehousing              | 3       |
| STA301   | Statistics and Probability             | 3        | CS619   | Final Project                 | 3       |
| Semester | No 2                                   |          | Semeste | r No 4                        |         |
| CS301    | Data Structures                        | 3        | CS506   | Web Design and Development    | 3       |
| CS302    | Digital Logic Design                   | 3        | CS604   | Operating Systems             | 3       |
| CS304    | Object Oriented Programming            | 3        | CS605   | Software Engineering - II     | 3       |
| CS401    | Comp. Arch. & Assembly Language Prog.  | 3        | CS607   | Artificial Intelligence       | 3       |
| CS403    | Database Management Systems            | 3        | CS609   | System Programming            | 3       |
| MTH603   | Numerical Analysis                     | 3        | CS619   | Final Project                 | 3       |
|          |  |          |         |                               |         |



#### **MASTER OF INFORMATION TECHNOLOGY (MIT)**

The Department of Computer Science and Information Technology offers MIT with main objectives to provide broad technical understanding of latest and emerging technologies in the field of information technology. Due to rapid worldwide dependency on software application, the requirement for trained and experienced IT specialist is in great demand. The program offered provides a unique edge in the current complex marketplace.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary          | of Courses       |         |
|------------------|------------------|---------|
| Course Type      | No of<br>Courses | Cr Hrs. |
| Required Courses | 22               | 66      |
| Project          | 1                | 6       |
| Total            | 23               | 72      |

#### AWARD OF DEGREE

To become eligible for the award of MIT degree, students are required to qualify prescribed courses amounting to at least 72 credit hours with a minimum CGPA of 2.00.

#### PROJECT

Students are required to complete a project of 6 credit hours in the final year of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor / supervisor is compulsory. Students have to submit a detailed write-up of the project and may be required to give a presentation.

#### ADMISSION ELIGIBILITY CRITERIA

Bachelor degree from a recognized university/ institute in any of the following subject: Mathematics, Physics, Computer Science, Commerce, Statistics, Economics, Business Administration or Engineering wherein two courses must be from the same department in a semester system or at least 150 marks weightage under annual system. Candidate must have at least 45% marks or CGPA 2.00 out of 4.

#### Note:

- Candidate holding PGD in Computer & Information Technology, PGD in Business Administration dually issued by the recognized Institute / University are eligible for admission towards MCS Program.
- Candidates who have not studied any one of the required above-mentioned subjects in their graduation are eligible for admission provided they first qualify "Deficiency Semester for MCS/MIT".
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester". Whereas those who have not studied above mentioned required subjects must qualify the "Deficiency Semester for MCS/ MIT" as well.
- Candidates holding 2-year Bachelor's Degree from VU will only be allowed to continue seamlessly towards their respective 4-year BS Degree Program.

**DURATION: 2 years / 4 Semesters** 

#### SCHEME OF STUDIES

| Code     | Title                                  | Cr. Hrs. | Code     | Title                       | Cr. Hrs. |
|----------|--|----------|----------|-----------------------------|----------|
| Semester | No 1                                   |          | Semester | No 3                        |          |
| CS201    | Introduction to Programming            | 3        | CS502    | Fundamentals of Algorithms  | 3        |
| CS601    | Data Communication                     | 3        | CS506    | Web Design and Development  | 3        |
| ENG201   | Business and Technical English Writing | 3        | CS614    | Data Warehousing            | 3        |
| MGT101   | Financial Accounting                   | 3        | CS615    | Software Project Management | 3        |
| MGT301   | Principles of Marketing                | 3        | MGT602   | Entrepreneurship            | 3        |
| MGT503   | Principles of Management               | 3        | CS619    | Final Project               | 3        |
|          |  |          |          |                             |          |
| Semester | No 2                                   |          | Semester | No 4                        |          |
| CS301    | Data Structures                        | 3        | CS408    | Human Computer Interaction  | 3        |
| CS304    | Object Oriented Programming            | 3        | CS411    | Visual Programming          | 3        |
| CS401    | Comp. Arch. & Assembly Language Prog.  | 3        | CS604    | Operating Systems           | 3        |
| CS403    | Database Management Systems            | 3        | CS610    | Computer Network            | 3        |
| CS504    | Software Engineering - I               | 3        | MGT501   | Human Resource Management   | 3        |
| MGT502   | Organizational Behaviour               | 3        | CS619    | Final Project               | 3        |
|          |  |          |          |                             |          |

| Code     | Title                                  | Cr. Hrs. | Code     | Title                       | Cr. Hrs |
|----------|--|----------|----------|-----------------------------|---------|
| Semester | No 1                                   |          | Semester | No 3                        |         |
| CS201    | Introduction to Programming            | 3        | CS502    | Fundamentals of Algorithms  | 3       |
| CS601    | Data Communication                     | 3        | CS506    | Web Design and Development  | 3       |
| NG201    | Business and Technical English Writing | 3        | CS614    | Data Warehousing            | 3       |
| /IGT101  | Financial Accounting                   | 3        | CS615    | Software Project Management | 3       |
| /IGT301  | Principles of Marketing                | 3        | MGT602   | Entrepreneurship            | 3       |
| /IGT503  | Principles of Management               | 3        | CS619    | Final Project               | 3       |
| Semester | <br>No 2                               |          | Semester | No 4                        |         |
| CS301    | Data Structures                        | 3        | CS408    | Human Computer Interaction  | 3       |
| CS304    | Object Oriented Programming            | 3        | CS411    | Visual Programming          | 3       |
| CS401    | Comp. Arch. & Assembly Language Prog.  | 3        | CS604    | Operating Systems           | 3       |
| S403     | Database Management Systems            | 3        | CS610    | Computer Network            | 3       |
| S504     | Software Engineering - I               | 3        | MGT501   | Human Resource Management   | 3       |
| /IGT502  | Organizational Behaviour               | 3        | CS619    | Final Project               | 3       |
|          |  |          |          |                             |         |



#### **BS COMPUTER SCIENCE**

The Department of Computer Science and Information Technology offers a four year BS degree program in computer science. The program has been designed to meet the growing need for computer science experts in the rapidly evolving 21st century job market. Its mission is to provide graduates with a strong computer science base that will enable them to capitalize on the increasing career opportunities in the software industry and to expand the limits of their knowledge by pursuing further studies. The specialized degree provides highly demanded expertise, a great mobility, flexibility, and an impressive range of possible career choices.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line guizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses  |         |         |
|---------------------|---------|---------|
|                     | No of   |         |
| Course Type         | Courses | Cr Hrs. |
| Required Courses    | 42      | 123     |
| Elective            | 1       | 3       |
| Internship/ Project | 1       | 6       |
| Total               | 44      | 132     |

#### SCHEME OF STUDIES

| Code         | Title                            | Cr. Hrs. |
|--------------|----------------------------------|----------|
| Semester     | No 1                             |          |
| CS101        | Introduction to Computing        | 3        |
| ENG101       | English Comprehension            | 3 C      |
| MGT101       | Financial Accounting             | 3 S      |
| MTH101       | Calculus And Analytical Geometry | 3 C      |
| PAK301       | Pakistan Studies                 | 2 E      |
| ETH201       | Ethics (for Non-Muslims)         | E        |
| ISL201       | Islamic Studies                  | 1 N      |
| (Option to s | select one)                      | N        |

#### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

#### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 4 years / 8 Semesters** 

#### AWARD OF DEGREE

To be eligible for the award of BS(CS) degree, candidates are required to complete prescribed number of credit hours with at least CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| CS201    | Introduction to Programming            | 3        |
| ECO401   | Economics                              | 3        |
| ENG201   | Business and Technical English Writing | 3        |
| MTH202   | Discrete Mathematics                   | 3        |
| MTH301   | Calculus II                            | 3        |

| Code     | Title                                 | Cr. Hrs. | Code     | Title                        | Cr. Hrs. |
|----------|---------------------------------------|----------|----------|------------------------------|----------|
| Semester | No 3                                  |          | Semester | No 6                         |          |
| CS301    | Data Structures                       | 3        | CS602    | Computer Graphics            | 3        |
| CS302    | Digital Logic Design                  | 3        | CS604    | Operating Systems            | 3        |
| CS304    | Object Oriented Programming           | 3        | CS605    | Software Engineering - II    | 3        |
| CS601    | Data Communication                    | 3        | CS606    | Compiler Construction        | 3        |
| PHY101   | Physics                               | 3        | MGT501   | Human Resource Management    | 3        |
| PHY301   | Circuit Theory                        | 3        | MTH501   | Linear Algebra               | 3        |
| Semester | No 4                                  |          | Semester | No 7                         |          |
| CS401    | Comp. Arch. & Assembly Language Prog. | 3        | CS408    | Human Computer Interaction   | 3        |
| CS403    | Database Management Systems           | 3        | CS411    | Visual Programming           | 3        |
| CS504    | Software Engineering - I              | 3        | CS506    | Web Design and Development   | 3        |
| CS610    | Computer Network                      | 3        | CS508    | Modern Programming Languages | 3        |
| MGT301   | Principles of Marketing               | 3        | MTH601   | Operations Research          | 3        |
|          |                                       |          | CS619    | Final Project - CS619        | 6        |
| Semester | No 5                                  |          |          |                              |          |
| CS402    | Theory of Automata                    | 3        | Semester | No 8                         |          |
| CS501    | Advance Computer Architecture         | 3        | CS607    | Artificial Intelligence      | 3        |
| CS502    | Fundamentals of Algorithms            | 3        | CS609    | System Programming           | 3        |
| MCM301   | Communication skills                  | 3        | CS614    | Data Warehousing             | 3        |
| MTH401   | Differential Equations                | 3        | MGT201   | Financial Management         | 3        |
| STA301   | Statistics and Probability            | 3        | MTH603   | Numerical Analysis           | 3        |

| Code     | Title                                 | Cr. Hrs. | Code     | Title                        | Cr. Hrs. |
|----------|---------------------------------------|----------|----------|------------------------------|----------|
| Semester | No 3                                  |          | Semester | No 6                         |          |
| CS301    | Data Structures                       | 3        | CS602    | Computer Graphics            | 3        |
| CS302    | Digital Logic Design                  | 3        | CS604    | Operating Systems            | 3        |
| CS304    | Object Oriented Programming           | 3        | CS605    | Software Engineering - II    | 3        |
| CS601    | Data Communication                    | 3        | CS606    | Compiler Construction        | 3        |
| PHY101   | Physics                               | 3        | MGT501   | Human Resource Management    | 3        |
| PHY301   | Circuit Theory                        | 3        | MTH501   | Linear Algebra               | 3        |
| Semester | No 4                                  |          | Semester | No 7                         |          |
| CS401    | Comp. Arch. & Assembly Language Prog. | 3        | CS408    | Human Computer Interaction   | 3        |
| CS403    | Database Management Systems           | 3        | CS411    | Visual Programming           | 3        |
| CS504    | Software Engineering - I              | 3        | CS506    | Web Design and Development   | 3        |
| CS610    | Computer Network                      | 3        | CS508    | Modern Programming Languages | 3        |
| MGT301   | Principles of Marketing               | 3        | MTH601   | Operations Research          | 3        |
|          |                                       |          | CS619    | Final Project - CS619        | 6        |
| Semester | No 5                                  |          |          |                              |          |
| CS402    | Theory of Automata                    | 3        | Semester | No 8                         |          |
| CS501    | Advance Computer Architecture         | 3        | CS607    | Artificial Intelligence      | 3        |
| CS502    | Fundamentals of Algorithms            | 3        | CS609    | System Programming           | 3        |
| MCM301   | Communication skills                  | 3        | CS614    | Data Warehousing             | 3        |
| MTH401   | Differential Equations                | 3        | MGT201   | Financial Management         | 3        |
| STA301   | Statistics and Probability            | 3        | MTH603   | Numerical Analysis           | 3        |

#### PROJECT

Students are required to complete a project of 6 credit hours in the final year of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor / supervisor is compulsory. Students have to submit a detailed write-up of the project and may be required to give a presentation.

Faculty of Computer Science and Information Technology

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#### **BS INFORMATION TECHNOLOGY**

The Department of Computer Science and Information Technology offers a four year BS degree program in Information Technology. The program has been designed to meet the growing need for IT experts in the rapidly evolving 21st century job market. Its mission is to provide graduates with a strong IT base that will enable them to capitalize on the increasing career opportunities in the IT industry and to expand the limits of their knowledge by pursuing further studies. The specialized degree provides highly demanded expertise, a great mobility, flexibility, and an impressive range of possible career choices.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line guizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses  |                  |         |  |  |  |
|---------------------|------------------|---------|--|--|--|
| Course Type         | No of<br>Courses | Cr Hrs. |  |  |  |
| Required Courses    | 42               | 123     |  |  |  |
| Elective            | 1                | 3       |  |  |  |
| Internship/ Project | 1                | 6       |  |  |  |
| Total               | 44               | 132     |  |  |  |

#### SCHEME OF STUDIES

| Code         | Title                            | Cr. Hrs |
|--------------|----------------------------------|---------|
| Semester     | No 1                             |         |
| CS101        | Introduction to Computing        | 3       |
| ENG101       | English Comprehension            | 3       |
| MGT101       | Financial Accounting             | 3       |
| MTH101       | Calculus And Analytical Geometry | 3       |
| PAK301       | Pakistan Studies                 | 2       |
| ETH201       | Ethics (for Non-Muslims)         |         |
| ISL201       | Islamic Studies                  | 1       |
| (Option to s | select one)                      |         |

#### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

#### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 4 years / 8 Semesters** 

#### AWARD OF DEGREE

To be eligible for the award of BS(IT) degree, candidates are required to complete prescribed number of credit hours with at least CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| CS201    | Introduction to Programming            | 3        |
| CO401    | Economics                              | 3        |
| NG201    | Business and Technical English Writing | 3        |
| /TH202   | Discrete Mathematics                   | 3        |
| /TH301   | Calculus II                            | 3        |
|          |  |          |

| Code     | Title                                 | Cr. Hrs. | Code     | Title                        | Cr. Hrs. |
|----------|---------------------------------------|----------|----------|------------------------------|----------|
| Semester | No 3                                  |          | Semester | No 6                         |          |
| CS301    | Data Structures                       | 3        | CS602    | Computer Graphics            | 3        |
| CS302    | Digital Logic Design                  | 3        | CS604    | Operating Systems            | 3        |
| CS304    | Object Oriented Programming           | 3        | CS605    | Software Engineering - II    | 3        |
| CS601    | Data Communication                    | 3        | MGT501   | Human Resource Management    | 3        |
| PHY101   | Physics                               | 3        | MGT502   | Organizational Behaviour     | 3        |
| PHY301   | Circuit Theory                        | 3        | MTH501   | Linear Algebra               | 3        |
| Semester | No 4                                  |          | Semester | No 7                         |          |
| CS401    | Comp. Arch. & Assembly Language Prog. | 3        | CS408    | Human Computer Interaction   | 3        |
| CS403    | Database Management Systems           | 3        | CS411    | Visual Programming           | 3        |
| CS504    | Software Engineering - I              | 3        | CS506    | Web Design and Development   | 3        |
| CS610    | Computer Network                      | 3        | CS508    | Modern Programming Languages | 3        |
| MGT301   | Principles of Marketing               | 3        | MTH601   | Operations Research          | 3        |
|          |                                       |          | CS619    | Final Project - CS619        | 6        |
| Semester | No 5                                  |          |          |                              |          |
| CS402    | Theory of Automata                    | 3        | Semester | No 8                         |          |
| CS501    | Advance Computer Architecture         | 3        | CS507    | Information Systems          | 3        |
| CS502    | Fundamentals of Algorithms            | 3        | CS615    | Software Project Management  | 3        |
| MCM301   | Communication skills                  | 3        | MGT201   | Financial Management         | 3        |
| MTH401   | Differential Equations                | 3        | MGT503   | Principles of Management     | 3        |
| STA301   | Statistics and Probability            | 3        | MGT602   | Entrepreneurship             | 3        |

| Code     | Title                                 | Cr. Hrs. | Code     | Title                        | Cr. Hrs. |
|----------|---------------------------------------|----------|----------|------------------------------|----------|
| Semester | No 3                                  |          | Semester | No 6                         |          |
| CS301    | Data Structures                       | 3        | CS602    | Computer Graphics            | 3        |
| CS302    | Digital Logic Design                  | 3        | CS604    | Operating Systems            | 3        |
| CS304    | Object Oriented Programming           | 3        | CS605    | Software Engineering - II    | 3        |
| CS601    | Data Communication                    | 3        | MGT501   | Human Resource Management    | 3        |
| PHY101   | Physics                               | 3        | MGT502   | Organizational Behaviour     | 3        |
| PHY301   | Circuit Theory                        | 3        | MTH501   | Linear Algebra               | 3        |
| Semester | No 4                                  |          | Semester | No 7                         |          |
| CS401    | Comp. Arch. & Assembly Language Prog. | 3        | CS408    | Human Computer Interaction   | 3        |
| CS403    | Database Management Systems           | 3        | CS411    | Visual Programming           | 3        |
| CS504    | Software Engineering - I              | 3        | CS506    | Web Design and Development   | 3        |
| CS610    | Computer Network                      | 3        | CS508    | Modern Programming Languages | 3        |
| MGT301   | Principles of Marketing               | 3        | MTH601   | Operations Research          | 3        |
|          |                                       |          | CS619    | Final Project - CS619        | 6        |
| Semester | No 5                                  |          |          |                              |          |
| CS402    | Theory of Automata                    | 3        | Semester | No 8                         |          |
| CS501    | Advance Computer Architecture         | 3        | CS507    | Information Systems          | 3        |
| CS502    | Fundamentals of Algorithms            | 3        | CS615    | Software Project Management  | 3        |
| MCM301   | Communication skills                  | 3        | MGT201   | Financial Management         | 3        |
| MTH401   | Differential Equations                | 3        | MGT503   | Principles of Management     | 3        |
| STA301   | Statistics and Probability            | 3        | MGT602   | Entrepreneurship             | 3        |

#### PROJECT

Students are required to complete a project of 6 credit hours in the final year of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor / supervisor is compulsory. Students have to submit a detailed write-up of the project and may be required to give a presentation.

Faculty of Computer Science and Information Technology

**Department of Computer Science and Information Technology** 

#### **BS SOFTWARE ENGINEERING**

The Departments of Computer Science & Information Technology offers 4-year BS in Software Engineering program to fulfill the needs of rapidly growing market of software development in the country. The BS in Software Engineering degree will equip students with technical knowledge of the fundamentals of computer systems, programming languages, and the mathematical foundations of algorithms and data structures that are required to establish reliability and safety in software. The pogram emphasizes the development of professional skills in the technical area of software engineering, that is, the systematic application of analysis, design, and construction techniques for computer systems and applications.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses  |         |         |  |  |  |  |
|---------------------|---------|---------|--|--|--|--|
|                     | No of   |         |  |  |  |  |
| Course Type         | Courses | Cr Hrs. |  |  |  |  |
| Required Courses    | 42      | 123     |  |  |  |  |
| Elective            | 1       | 3       |  |  |  |  |
| Internship/ Project | 1       | 6       |  |  |  |  |
| Total               | 44      | 132     |  |  |  |  |

#### SCHEME OF STUDIES

| Code                         | Title                            | Cr. Hrs. |
|------------------------------|----------------------------------|----------|
| Semester                     | No 1                             |          |
| CS101                        | Introduction to Computing        | 3        |
| CS201                        | Introduction to Programming      | 3        |
| MTH101                       | Calculus And Analytical Geometry | 3        |
| ENG101 English Comprehension |                                  | 3        |
| PAK301                       | Pakistan Studies                 | 2        |
| ETH201                       | Ethics (for Non-Muslims)         |          |
| ISL201                       | Islamic Studies                  | 1        |
| (Option to s                 | select one)                      |          |
|                              |                                  |          |

#### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

#### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 4 years / 8 Semesters** 

#### AWARD OF DEGREE

To be eligible for the award of BS(Software Engineering) degree, candidates are required to complete prescribed number of credit hours with at least CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| CS304    | Object Oriented Programming            | 3        |
| MGT101   | Financial Accounting                   | 3        |
| ENG201   | Business and Technical English Writing | 3        |
| VTH202   | Discrete Mathematics                   | 3        |
| VTH301   | Calculus II                            | 3        |
|          |  |          |

| Code     | Title                                   | Cr. Hrs. | Code     | Title                                | Cr. Hrs. |
|----------|---|----------|----------|--------------------------------------|----------|
| Semester | No 3                                    |          | Semester | No 6                                 |          |
| CS301    | Data Structures                         | 3        | CS508    | Modern Programming Languages         | 3        |
| CS302    | Digital Logic Design                    | 3        | CS608    | Software Verification and Validation | 3        |
| MTH501   | Linear Algebra                          | 3        | CS603    | Software Architecture and Design     | 3        |
| CS502    | Fundamentals of Algorithms              | 3        | MCM301   | Communication Skills                 | 3        |
| CS601    | Data Communication                      | 3        | MGT503   | Principal of Management              | 3        |
| PHY101   | Physics                                 | 3        | CS607    | Artificial Intelligence              | 3        |
| Semester | No 4                                    |          | Semester | No 7                                 |          |
| CS403    | Database Management Systems             | 3        | CS615    | Software Project Management          | 3        |
| CS504    | Software Engineering - I                | 3        | CS611    | Software Quality Engineering         | 3        |
| CS610    | Computer Network                        | 3        | CS621    | Professional Practices               | 3        |
| CS604    | Operating System                        | 3        | PSY101   | Introduction to Psychology           | 3        |
| ECO401   | Economics                               | 3        | LAN      | Foreign Language                     | 3        |
| MTH603   | Numerical Analysis                      | 3        | CS619    | Final Project – I                    | 3        |
| Semester | No 5                                    |          | Semester | No 8                                 |          |
| CS509    | Software Requirement and Specifications | 3        | CS402    | Theory of Automata                   | 3        |
| STA301   | Statistics and Probability              | 3        | CS614    | Data Warehousing                     | 3        |
| CS408    | Human Computer Interaction              | 3        | CS—      | Aspect Oriented Software Design      | 3        |
| CS605    | Software Engineering - II               | 3        | CS619    | Final Project – II                   | 3        |
| CS506    | Web Design and Development              | 3        |          |                                      |          |

#### PROJECT

**Operations Research** 

MTH601

Students are required to complete a project of 6 credit hours in the final year of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor / supervisor is compulsory. Students have to submit a detailed writeup of the project and may be required to give a presentation.

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Faculty of Computer Science and Information Technology

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#### **B.Sc. COMPUTER SCIENCE**

The B.Sc. Computer Science program is a regular 2-year degree program which has been designed to equip the students with requisite knowledge and skills which would help them take an early start of their professional career so that they can earn their living and support their families too.

Note: Candidates holding 2-year Bachelor's Degree will only be allowed to continue seamlessly towards their respective 4–year BS Degree Program at a later stage in life.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses |                  |         |  |  |  |  |
|--------------------|------------------|---------|--|--|--|--|
| Course Type        | No of<br>Courses | Cr Hrs. |  |  |  |  |
| Required Courses   | 19               | 54      |  |  |  |  |
| Elective Courses   | 2                | 6       |  |  |  |  |
| Total              | 21               | 60      |  |  |  |  |

#### AWARD OF DEGREE

To become eligible for the award of B.Sc. in Computer Science degree, students are required to qualify prescribed courses amounting to at least 60 credit hours with a minimum CGPA 2.00.

#### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

#### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

#### SCHEME OF STUDIES

| Code                                | Title  | Cr. Hrs     |
|-------------------------------------|--|-------------|
| Semester                            | No 1   |             |
| CS101                               | Introduction to Computing  | 3           |
| ENG101                              | English Comprehension  | 3           |
| MGT101                              | Financial Accounting   | 3           |
| MTH101                              | Calculus And Analytical Geometry   | 3           |
| PAK301                              | Pakistan Studies   | 2           |
| ETH201                              | Ethics (for Non-Muslims)   |             |
| ISL201                              | Islamic Studies  | 1           |
| (Option to s                        | select one)  |             |
|                                     |  |             |
|                                     |  |             |
| Semester                            | No 2   |             |
| Semester<br>CS201                   | No 2 Introduction to Programming   | 3           |
|                                     |  | 3           |
| CS201                               | Introduction to Programming  | _           |
| CS201<br>ECO401                     | Introduction to Programming<br>Economics   | 3           |
| CS201<br>ECO401<br>ENG201           | Introduction to Programming<br>Economics<br>Business and Technical English Writing                         | 3           |
| CS201<br>ECO401<br>ENG201<br>MTH202 | Introduction to Programming<br>Economics<br>Business and Technical English Writing<br>Discrete Mathematics | 3<br>3<br>3 |
| CS201<br>ECO401<br>ENG201<br>MTH202 | Introduction to Programming<br>Economics<br>Business and Technical English Writing<br>Discrete Mathematics | 3<br>3<br>3 |

| Code        | Title                                   | Cr. Hrs. |
|-------------|---|----------|
| Semester    | No 3                                    |          |
| CS301       | Data Structures                         | 3        |
| CS302       | Digital Logic Design                    | 3        |
| CS304       | Object Oriented Programming             | 3        |
| CS601       | Data Communication                      | 3        |
| VTH401      | Differential Equations                  |          |
| PHY101      | Physics                                 |          |
| PHY301      | Circuit Theory                          |          |
| STA301      | Statistics and Probability              | 3        |
| Option to s | elect one from above group)             |          |
|             |   |          |
| Semester    | No 4                                    |          |
| CS401       | Comp. Arch. and Assembly Language Prog. | 3        |
| CS403       | Database Management Systems             | 3        |
| CS504       | Software Engineering - I                | 3        |
| CS610       | Computer Network                        | 3        |
| NGT301      | Principles of Marketing                 |          |
| VTH501      | Linear Algebra                          | 3        |
|             |   |          |

Option to select one from above group)

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#### **ASSOCIATE DEGREE PROGRAM IN COMPUTER NETWORKING**

The program will provide knowledge and practice of networking technologies that are being used in today's market in order to equip the students with necessary skills to design, install and administer any organization's computer networks, including local-area networks (LAN), wide-area networks (WAN), as well as wireless networks. The program will enable the students:

- To be equipped with basic networking skills to meet market needs.
- To develop the necessary knowledge and skills to seek a career in the networking field.
- To analyze network performance and take corrective actions.
- To install, configure, secure, administer and troubleshoot network systems.
- · To compete for various jobs including Assistant Network engineer, Assistant Network Administrator, Network Systems Support, Network Technician, or similar positions.
- Note: The Associate Degree Program is equivalent to Bachelor degree (2-Year). The students after obtaining the degree, may take admission in 5th Semester of BS Computer Science (4 - Year) Program.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses |                  |         |  |
|--------------------|------------------|---------|--|
| Course Type        | No of<br>Courses | Cr Hrs. |  |
| Required Courses   | 22               | 63      |  |
| Final Project      | 1                | 3       |  |
| Total              | 23               | 66      |  |

#### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

#### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 



To become eligible for the award of Associate Degree in Computer Networking, students are required to gualify prescribed courses amounting to at least 66 credit hours with a minimum Cumulative Grade Point Average (CGPA) of 2.00.



#### SCHEME OF STUDIES

| Code         | Title                                     | Cr. Hrs. | Code  | Title   | Cr. Hrs.   |
|--------------|---|----------|---|---|------------|
| Semester     | No 1                                      |          | Semester  | r No 3  |            |
| CS101        | Introduction to Computing                 | 3        | CS205   | Information Security  | 3          |
| CS201        | Introduction to Programming               | 3        | CS314   | Introduction to Cellular Networks                                     | 3          |
| CS601        | Data Communication                        | 3        | CS407   | Routing and Switching   | 3          |
| ENG101       | English Comprehension                     | 3        | CS431   | Wireless Communication  | 3          |
| MTH202       | Discrete Mathematics                      | 3        | CS435   | Cloud Computing   | 3          |
| PAK301       | Pakistan Studies                          | 2        | CS604   | Operating Systems   | 3          |
| ETH201       | Ethics (for Non-Muslims)                  |          |   |   |            |
| ISL201       | Islamic Studies                           | 1        | Semester No 4   |   |            |
| (Option to s | select one)                               |          | CS204   | Cyber Law   | 3          |
|              |   |          | CS315   | Network Security  | 3          |
| Semester     | No 2                                      |          | CS432   | Network Modeling and Simulation                                       | 3          |
| CS206        | Introduction to Network Design & Analysis | 3        | CS519   | Final Project   | 3          |
| CS301        | Data Structures                           | 3        | PROJI   | =CT   |            |
| CS610        | Computer Network                          | 3        |   | ts are required to complete a pr                                      | oject of 3 |
| ENG201       | Business and Technical English Writing    | 3        |   | nours in the final year of the prog<br>of the final project is at the | •          |
| MTH101       | Calculus And Analytical Geometry          | 3        | discreti  | on. However, consultation with th                                     | ne student |
| STA301       | Statistics and Probability                | 3        | <ul> <li>advisor/ supervisor is compulsory. Students have to<br/>submit a detailed write-up of the project and may be<br/>required to give a presentation.</li> </ul> |   |            |



#### **ASSOCIATE DEGREE PROGRAM IN DATABASE MANAGEMENT SYSTEM**

The Program is designed to help students to develop basic knowledge and skills required to pursue various positions in database administration, design and development. It provides a balance between theory and practice wherein students will learn how to develop, test, deploy and maintain databases in various organizations. The program will enable the students:

- To learn basic concepts like data and information processing.
- To understand the role of a database management system in an organization and learn basic and advanced database concepts, including the structure and operation of the relational data model and designs.
- To have technical and hands-on experience on database development, maintenance, administration and information security.
- To have hands-on experience of web based database development including front end development, design and database connectivity.
- To develop foundation and high level concepts of system development process including different modules and techniques.
- Note: The Associate Degree Program is equivalent to Bachelor degree (2-Year). The students after obtaining the degree, may take admission in 5th Semester of BS Computer Science (4 - Year) Program.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses |                  |         |  |
|--------------------|------------------|---------|--|
| Course Type        | No of<br>Courses | Cr Hrs. |  |
| Required Courses   | 22               | 63      |  |
| Final Project      | 1                | 3       |  |
| Total              | 23               | 66      |  |

#### AWARD OF DEGREE

To become eligible for the award of Associate Degree in Database Management System, students are required to qualify prescribed courses amounting to at least 66 credit hours with a minimum Cumulative Grade Point Average (CGPA) of 2.00.

#### **ADMISSION ELIGIBILITY CRITERIA**

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

#### SCHEME OF STUDIES

| Code         | Title                                  | Cr. Hrs. | Code   | Title  | Cr. Hrs. |
|--------------|--|----------|--|--|----------|
| Semester     | No 1                                   |          | Semeste  | r No 3   |          |
| CS101        | Introduction to Computing              | 3        | CS405  | Database Programming using Oracle 11i                                    | 3        |
| CS201        | Introduction to Programming            | 3        | CS406  | Web Based Database Applications  | 3        |
| ENG101       | English Comprehension                  | 3        | CS409  | Introduction to Database Administration                                  | 3        |
| MGT101       | Financial Accounting                   | 3        | CS411  | Visual Programming   | 3        |
| MTH302       | Business Mathematics & Statistics      | 3        | CS504  | Software Engineering - I   | 3        |
| PAK301       | Pakistan Studies                       | 2        | CS604 Operating Systems  |  | 3        |
| ETH201       | Ethics (for Non-Muslims)               |          |  |  |          |
| ISL201       | Islamic Studies                        | 1        | Semester No 4  |  |          |
| (Option to s | select one)                            |          | CS205  | Information Security   | 3        |
|              |  |          | CS430  | E-commerce   | 3        |
| Semester     | No 2                                   |          | CS441  | Big Data Concepts  | 3        |
| CS301        | Data Structures                        | 3        | CS519  | Final Project  | 3        |
| CS312        | Database Modeling and Design           | 3        | PROJI  | ECT  |          |
| CS403        | Database Management Systems            | 3        |  | ts are required to complete a proj                                       | ect of 3 |
| CS506        | Web Design and Development             | 3        |  | nours in the final year of the progr<br>of the final project is at the s |          |
| CS507        | Information Systems                    | 3        | discreti   | on. However, consultation with the                                       | student  |
| ENG201       | Business and Technical English Writing | 3        | <ul> <li>advisor/ supervisor is compulsory. Students have to<br/>submit a detailed write-up of the project and may b<br/>required to give a presentation.</li> </ul> |  |          |



## ASSOCIATE DEGREE PROGRAM IN WEB DESIGN AND DEVELOPMENT

The program is designed to help students develop knowledge and skills required for entry-level positions in the field of web designing and development. The program provides a good balance between theory and practice, with greater emphasis on practical knowledge of web based development, programming techniques and problem-solving skills. The program will enable the students:

- · To design, develop and maintain web applications.
- To practice the cyber laws in order to earn and maintain their integrity in market.
- To work on upcoming tools and trends in web development.
- To learn latest tools to deal with web based applications for smart devices.
- Note: The Associate Degree Program is equivalent to Bachelor degree (2-Year). The students after obtaining the degree, may take admission in 5th Semester of BS Computer Science (4 Year) Program.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses |                  |         |  |
|--------------------|------------------|---------|--|
| Course Type        | No of<br>Courses | Cr Hrs. |  |
| Required Courses   | 22               | 63      |  |
| Final Project      | 1                | 3       |  |
| Total              | 23               | 66      |  |

#### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

#### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

#### SCHEME OF STUDIES

| Code                  | Title                                  | Cr. Hrs. |
|-----------------------|--|----------|
| Semester              | No 1                                   |          |
| CS101                 | Introduction to Computing              | 3        |
| CS201                 | Introduction to Programming            | 3        |
| CS202                 | Fundamentals of Front End Development  | 3        |
| NG101                 | English Comprehension                  | 3        |
| /TH202                | Discrete Mathematics                   | 3        |
| PAK301                | Pakistan Studies                       | 2        |
| TH201                 | Ethics (for Non-Muslims)               |          |
| SL201                 | Islamic Studies                        | 1        |
| Option to select one) |  |          |
|                       |  |          |
| Semester              | No 2                                   |          |
| CS301                 | Data Structures                        | 3        |
| CS304                 | Object Oriented Programming            | 3        |
| CS403                 | Database Management Systems            | 3        |
| CS601                 | Data Communication                     | 3        |
| NG201                 | Business and Technical English Writing | 3        |
|                       |  |          |

#### AWARD OF DEGREE

To become eligible for the award of Associate Degree in Web Design and Development, students are required to qualify prescribed courses amounting to at least 66 credit hours with a minimum Cumulative Grade Point Average (CGPA) of 2.00.



| Code     | Title                                    | Cr. Hrs. |
|----------|--|----------|
| Semester | r No 3                                   |          |
| CS310    | Open Source Web Application Development  | 3        |
| CS311    | Introduction to Web Services Development | 3        |
| CS430    | E-commerce                               | 3        |
| CS506    | Web Design and Development               | 3        |
| CS507    | Information Systems                      | 3        |
| CS604    | Operating Systems                        | 3        |
|          |  |          |
| Semester | r No 4                                   |          |
| CS204    | Cyber Law                                | 3        |
|          |  |          |

| CS204 | Cyber Law                            | 3 |
|-------|--------------------------------------|---|
| CS408 | Human Computer Interaction           | 3 |
| CS420 | Web Development for Portable Devices | 3 |
| CS504 | Software Engineering - I             | 3 |
| CS519 | Final Project                        | 3 |
|       |                                      |   |

#### PROJECT

Students are required to complete a project of 3 credit hours in the final year of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor/ supervisor is compulsory. Students have to submit a detailed write-up of the project and may be required to give a presentation.

#### POST GRADUATE DIPLOMA IN COMPUTER SCIENCE

Post Graduate Diploma in Computer Science has been designed for those who are willing to adopt Computer Science as an area for their higher education. It is designed to give students a complete walk through the field and to provide an enduring foundation for future professional growth. PGD in Computer Science prepares students with ability to undertake technical assignments in their organizations.

Note: Upon successful completion of PGD in Computer Science, the students are allowed to seek admission towards respective Master programs.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses |               |         |  |  |
|--------------------|---------------|---------|--|--|
| Course Type        | No of Courses | Cr Hrs. |  |  |
| Required Courses   | 8             | 24      |  |  |
| Total              | 8             | 24      |  |  |

SCHEME OF STUDIES

#### **ADMISSION ELIGIBILITY CRITERIA**

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4.

#### Note:

 Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 1 year / 2 Semesters** 

#### AWARD OF DIPLOMA

To become eligible for the award of Post Graduate Diploma in Computer Science, students are required to qualify prescribed courses amounting to at least 24 credit hours with a minimum CGPA of 2.00.

Cr. Hrs.

3

3 3

3

| Code     | Title                            | Cr. Hrs. | Code    | Title                       |
|----------|----------------------------------|----------|---------|-----------------------------|
| Semester | No 1                             |          | Semeste | r No 2                      |
| CS101    | Introduction to Computing        | 3        | CS301   | Data Structures             |
| CS201    | Introduction to Programming      | 3        | CS302   | Digital Logic Design        |
| ENG101   | English Comprehension            | 3        | CS304   | Object Oriented Programming |
| MTH101   | Calculus and Analytical Geometry | 3        | CS403   | Database Management Systems |
|          |                                  |          |         |                             |

#### POST GRADUATE DIPLOMA IN INFORMATION TECHNOLOGY

Post Graduate Diploma in Information Technology has been designed to equip students with an integrated set of skills that will allow them to develop their professional careers in the field of Information Technology. The diploma holder are expected to undertake entry level technical position in all the field of industry.

Note: Upon successful completion of PGD in Computer Science, the students are allowed to seek admission towards respective Master programs.

#### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses |               |         |  |  |  |
|--------------------|---------------|---------|--|--|--|
| Course Type        | No of Courses | Cr Hrs. |  |  |  |
| Required Courses   | 8             | 24      |  |  |  |
| Total              | 8             | 24      |  |  |  |

#### SCHEME OF STUDIES

| Code          | Title                       | Cr. Hrs.      | Code  | Title                       | Cr. Hrs. |
|---------------|-----------------------------|---------------|-------|-----------------------------|----------|
| Semester No 1 |                             | Semester No 2 |       |                             |          |
| CS101         | Introduction to Computing   | 3             | CS403 | Database Management Systems | 3        |
| CS201         | Introduction to Programming | 3             | CS504 | Software Engineering - I    | 3        |
| ENG101        | English Comprehension       | 3             | CS601 | Data Communication          | 3        |
| MGT211        | Introduction To Business    | 3             | IT430 | E-Commerce                  | 3        |
|               |                             |               |       |                             |          |

#### **ADMISSION ELIGIBILITY CRITERIA**

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4.

#### Note:

Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 1 year / 2 Semesters** 

#### AWARD OF DIPLOMA

To become eligible for the award of Post Graduate Diploma in IT, students are required to qualify prescribed courses amounting to at least 24 credit hours with a minimum CGPA of 2.00.

### DEFICIENCY SEMESTER(S) FOR ADMISSION TOWARDS MS(CS)

The deficiency semester(s) for Master of Science in Computer Science (MSCS) program has been introduced to facilitate the candidates having 16-year Science/Engineering education background in order to overcome deficiency in the required subjects/courses of computer science filed.

Note: Upon successful completion of Deficiency Semester(s), students will be eligible to apply for admission towards MSCS program.

### ASSESSMENT OF STUDY PROGRESS:

The evaluation of students' study progress for deficiency courses is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, Graded Discussion Boards, mid-term and final-term examinations. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

### **COURSE EXEMPTION**

The number of courses required to be studied by a candidate are determined by admission committee on case to case basis. Already gualified courses are exempted from the scheme of studies given below. In such cases, the students can complete their remaining courses in minimum 18 weeks/ one semester.

### SCHEME OF STUDIES

| Code     | Title                                 | Cr. Hrs. | Code    |
|----------|---------------------------------------|----------|---------|
| Oue      | nue                                   | 01.1113. | Coue    |
| Semester | No 1                                  |          | Semeste |
| CS201    | Introduction to Programming           | 3        | CS502   |
| CS301    | Data Structures                       | 3        | CS504   |
| CS401    | Comp. Arch. & Assembly Language Prog. | 3        | CS604   |
| CS402    | Theory of Automata                    | 3        | CS610   |
| CS403    | Database Management Systems           | 3        | MTH202  |
|          |                                       |          |         |

### **ADMISSION ELIGIBILITY CRITERIA**

Candidates having 16-year Science/ Engineering education [BE, BS, M.Sc., and other relevant equivalent gualifications from a recognized university/institution] with at least Cumulative Grade Point Average (CGPA) 2.50 out of 4/1st division, wherein GPA system is not implemented, are eligible to apply.

**DURATION: 1 year / 2 Semesters** 

### COMPLETION REQUIREMENTS

To qualify Deficiency Semester(s), students are required to complete program's course work with minimum CGPA of 2.00.

| Code                   | Title                      | Cr. Hrs. |
|------------------------|----------------------------|----------|
| Semester               | No 2                       |          |
| CS502                  | Fundamentals of Algorithms | 3        |
| CS504                  | 4 Software Engineering - I |          |
| CS604                  | 04 Operating Systems       |          |
| CS610 Computer Network |                            | 3        |
| MTH202                 | Discrete Mathematics       | 3        |
|                        |                            |          |

# **DEFICIENCY SEMESTER FOR ADMISSION TOWARDS MCS/MIT**

The University encourages the candidates who intend to pursue their career in the field of Computer Science or Information Technology but have not studied required prescribed subject in their Bachelor/equivalent degree. The details are available under MCS and MIT programs.

Note: Upon successful completion of Deficiency Semester, students will be eligible to apply for admission towards MCS/MIT program.

### ASSESSMENT OF STUDY PROGRESS:

The evaluation of students' study progress for deficiency courses is based on continuous assessment throughout the semester by giving assignments, on-line guizzes, Graded Discussion Boards, mid-term and final-term examinations. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

### SCHEME OF STUDIES

| Code     | Title                             | Cr. Hrs. |
|----------|-----------------------------------|----------|
| Semester | No 1                              |          |
| CS101    | Introduction to Computing         | 3        |
| ENG101   | English Comprehension             | 3        |
| MTH101   | Calculus And Analytical Geometry  | 3        |
| MTH302   | Business Mathematics & Statistics | 3        |



### **ADMISSION ELIGIBILITY CRITERIA**

Candidates who have at least 45 % marks in their graduation or CGPA 2.00 out of 4 but have not studied any one of the required subjects during the Bachelor/equivalent Degree i.e. Mathematics, Physics, Computer Science, Statistics, Economics or Engineering.

**DURATION: 18 Weeks / 1 Semester** 

### COMPLETION REQUIREMENTS

To qualify Deficiency Semester, students are required to qualify each course with at least 50% marks.

# **Department of Education**

| • | <ul> <li>Master of Philosophy (2–Year) Program</li> <li>M.Phil Education (Educational Leadership &amp; Management)</li> </ul> | <b>Page</b><br>70 |
|---|---|-------------------|
| • | <ul> <li>Bachelor of Education (4–Year) Program</li> <li>B.Ed. (Hons.) Elementary</li> </ul>                                  | 71                |
| • | <ul> <li>Associate Degree (2-Year) Program</li> <li>ADP Education</li> </ul>  | 73                |
| • | <ul> <li>Post Graduate Diploma (1-Year) Program</li> <li>PGD in Education</li> </ul>  | 74                |
| • | Zero Semester   | 173               |
| • | Certificate Courses   | 174               |

# **M.PHIL IN EDUCATION [EDUCATIONAL LEADERSHIP & MANAGEMENT**]

M. Phil in Education [Educational Leadership & Management] is specially geared for teachers who are either teaching or serving as administrators at all levels in private and public sector institutions but have interest in research and would like to advance their educational career. The program aims at preparing education leaders for the educational institutions in public and private sector who will be fully equipped with modern teaching-learning process. This research oriented program will enable its students to conduct research and develop new techniques/padagogies of the teaching-learning process.

### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism wil be based on continuous assessment throughout the semester by giving assignments, on-line guizzes; graded discussion boards (GDBs), presentations, mid-term and final term examinations. However, thesis evaluation will be done as per HEC prescribed criteria.

| Summary of Courses                      |   |    |  |  |  |
|---|---|----|--|--|--|
| Course Type No. of Courses Credit Hours |   |    |  |  |  |
| Required Courses                        | 8 | 24 |  |  |  |
| Thesis                                  | 1 | 6  |  |  |  |
| Total                                   | 9 | 30 |  |  |  |

### SCHEME OF STUDIES

| Code       | Title                                     | Cr. Hrs. | b             | be decided after consultation                       | with the teacher. |
|------------|---|----------|---------------|---|-------------------|
|            |   |          | ŀ             | WARD OF DEGREE:                                     |                   |
| Semester I | No 1                                      |          | -             | To be eligible for the awa                          | rd of M. Phil in  |
| EDU702     | Advanced Educational Leadership           | 3        | E             | Education [ELM] degree, equired to complete at leas | the student is    |
| MGMT623    | Leadership & Team Management              | 3        |               | with Minimum CGPA of 2.50.                          |                   |
| MGMT625    | Change Management                         | 3        | Code          | Title   | Cr. Hrs.          |
| STA630     | Research Methods                          | 3        | Semester No 3 |   |                   |
|            |   |          | EDU           | Writing for Research                                | 2                 |
| Semester I | No 2                                      |          | EDU           | Research Seminar                                    | 1                 |
| STAT730    | Advanced Research Methods                 | 3        | EDU720        | Thesis  | 3                 |
| EDU        | Educational Governance: Policy & Practice | 3        | Semester      | No 4  |                   |
| EDU        | Financial Management in Education         | 3        | EDU720        | Thesis  | 3                 |
|            |   |          |               |   |                   |

### NOTE

The Virtual University of Pakistan may add new course(s)/ subject(s) or replace existing ones at any time as a result of continuous review of scheme of studies of the programs in order to bring them at par with the courses being taught at top notch foreign universities. While reviewing the courses, needs of local industry and job markets are also given full consideration.

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### **ADMISSION ELIGIBILITY CRITERIA**

BS Education/MA Education / M.Ed. or relevant degree (equivalent to 16-year of education) with at least CGPA 2.50 out of 4 or 1st division.

Candidates are required to pass the VU Entry Test with at least 50% marks.



### **DURATION: 2 years / 4 Semesters**

### THESIS

The students are required to conduct Research and present a Research Thesis worth 6-credit hours. Topic of the thesis must he decided after concultation with the teacher

# **BACHELOR OF EDUCATION (HONS.) ELEMENTARY**

Education is a growing sector which requires dealing and educating students with different learning capabilities, and offers an exciting career with its own challenges and rewards. Elementary education is the first phase of education usually preceded by nursery or primary school education. The Department of Education offers Bachelor's Degree in Education (elementary) 4-Year program to equip its students with basic teaching tools and in-depth knowledge about tomorrow's educational challenges. The Virtual University aims at developing dynamic and skilled elementary school teachers fluent in the use of the latest technologies and well-versed with the latest advancements in the techniques, knowledge and methods of teaching.

### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses |                  |         |  |  |
|--------------------|------------------|---------|--|--|
| Course Type        | No of<br>Courses | Cr Hrs. |  |  |
| Required Courses   | 42               | 123     |  |  |
| Teaching Practice  | 2                | 3       |  |  |
| Project            | 1                | 6       |  |  |
| Total              | 45               | 132     |  |  |

### SCHEME OF STUDIES

| Code       | Title                        | Cr. Hrs. |
|------------|------------------------------|----------|
| Semeste    | r No 1                       |          |
| CS001      | Computer Proficiency Licence | 3        |
| ENG101     | English Comprehension        | 3        |
| PSY101     | Introduction to Psychology   | 3        |
| PAK301     | Pakistan Studies             | 2        |
| URD101     | Urdu                         | 3        |
| ETH201     | Ethics (for Non-Muslims)     |          |
| ISL201     | Islamic Studies              | 1        |
| (Option to | select one)                  |          |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 4 years / 8 Semesters** 

### AWARD OF DEGREE

To be eligible for the award of B.Ed. (Hons) Elementary degree, the students are required to complete at least 132 credit hours with minimum GGPA of 2.00 & Teaching Practice.

| ode     | Title                             | Cr. Hrs. |
|---------|-----------------------------------|----------|
| emester | No 2                              |          |
| NG201   | English-II (Communication Skills) | 3        |
| S101    | Introduction to Computers         | 3        |
| DU305   | Classroom Management              | 3        |
| TH100   | General Mathematics               | 3        |
| DU101   | Foundations of Education          | 3        |
|         |                                   |          |

| Code     | Title   | Cr. Hrs. | Code       | Title                                   | Cr. Hrs. |
|----------|---|----------|------------|---|----------|
| Semester | No 3  |          | Semester N | No 6                                    | _        |
| MCM301   | Communication Skills                            | 3        | EDU513     | Teaching of History                     | 3        |
| EDU403   | Art, Crafts and Calligraphy                     | 3        | CEDU511    | Teaching of Mathematics 2               | 3        |
| EDU301   | General Methods of Teaching                     | 3        | EDU515     | Teaching of Geography                   | 3        |
| EDU401   | Contemporary Issues and Trends in Educatio      | n 3      | EDU        | Comparative Education                   | 3        |
| EDU402   | Curriculum Development                          | 3        | EDU516     | Teaching of English                     | 3        |
| EDU405   | Classroom Assessment                            | 3        | EDU        | Introduction to Guidance and Counseling | 3        |
| Semester | No 4  |          | Semester N | No 7                                    |          |
| EDU430   | ICT in Education                                | 3        | EDU602     | Education Leadership and Management     | 3        |
| EDU410   | Teaching of Literacy Skills                     | 3        | EDU        | Seminar in Education                    | 2        |
| EDU406   | Critical Thinking & Reflective Practice in Edu. | 3        | EDU654     | Pedagogy & Technology (Problems)        | 3        |
| EDU501   | School, Community and Teacher                   | 3        | EDU519     | Teaching Practice - I                   | 1        |
| EDU411   | Teaching of Urdu                                | 3        | EDU601     | Philosophy of Education                 | 3        |
|          |   |          | EDU603     | Advance Academic Reading and Writing    | 3        |
| Semester | No 5  |          |            |   |          |
| EDU502   | Education Development in Pakistan               | 3        | Semester N | No 8                                    |          |
| EDU510   | Teaching of Mathematics 1                       | 3        | MGT201     | Financial Management in Education       | 3        |
| EDU302   | Test Development and Evaluation                 | 3        | MGMT625    | Change Management                       | 3        |
| GSC201   | Teaching of General Science                     | 3        | EDU519     | Teaching Practice - II                  | 3        |
| EDU503   | Early Childhood Education                       | 3        | STA630     | Research Methods in Education           | 3        |
|          |   | 3        | EDU619     | Project                                 | 6        |

### PROJECT

Students are required to complete a project of 3 credit hours in the final year of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor / supervisor is compulsory. Students have to submit a detailed write-up of the project and may be required to give a presentation.

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### Faculty of Education

### **ASSOCIATE DEGREE PROGRAM IN EDUCATION**

The Associate Degree Program in Education (ADE) has been designed to help in-service teachers at elementary grades in public and private sector schools by providing them an opportunity to enhance their academic qualification and polish their teaching skills by learning latest techniques used for classroom management, assessment and evaluation. The program is equally good for perspective teachers to make their teaching a good learning experience for the students.

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### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), presentations (wherein applicable), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses   |                |                     |  |  |  |
|----------------------|----------------|---------------------|--|--|--|
| Course Type          | No. of Courses | <b>Credit Hours</b> |  |  |  |
| Required Courses     | 19             | 57                  |  |  |  |
| Elective Courses     | 2              | 6                   |  |  |  |
| Internship / Project | 1              | 3                   |  |  |  |
| Total                | 22             | 66                  |  |  |  |

### SCHEME OF STUDIES

| Code         | Title                               | Cr. Hrs. |
|--------------|-------------------------------------|----------|
| Semester     | No 1                                |          |
| EDU201       | Learning Theories                   | 3        |
| EDU303       | Child Development                   | 3        |
| ENG101       | English Comprehension               | 3        |
| GSC101       | General Science                     | 3        |
| URD101       | Urdu                                | 3        |
| ETH201       | Ethics (for Non-Muslims) (Elective) |          |
| ISL201       | Islamic Studies (Elective)          | 1        |
| (Option to s | select one)                         |          |

Note: Courses of semester no. 3 and 4 will be announced later

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To be eligible for the award of Associate Degree in Education, the students are required to complete at least 66 credit hours with (CGPA) of at least 2.00.

| Code    | Title                                  | Cr. Hrs. |
|---------|--|----------|
| emester | No 2                                   |          |
| DU301   | General Methods of Teaching            | 3        |
| DU305   | Classroom Management                   | 3        |
| NG201   | Business and Technical English Writing | 3        |
| ITH100  | General Mathematics                    | 3        |
| AK302   | Pakistan Studies                       | 2        |
|         |  |          |

# POST GRADUATE DIPLOMA IN EDUCATION

Post Graduate Diploma in Education has been designed with a core purpose of training and developing teachers who either intend to join or already serving mainly the schools in private sector. The teachers already serving at schools in public/government sector can also be join the program to polish their skills further. The program overall aims to equip its students with modern teaching techniques, classroom management & latest assessment techniques with an option to select an area of specialization from 'General Science', 'Urdu', 'Mathematics' and 'English'. The students after successful completion can also join B.Ed. one year program.

### ASSESSMENT OF STUDY PROGRESS:

The students' study progress evaluation mechanism is based on continuous assessment throughout semester by giving assignments, on-line quizzes, Graded Moderated Discussion Boards (GMDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses                |     |    |  |  |
|-----------------------------------|-----|----|--|--|
| Course Type No of Courses Cr Hrs. |     |    |  |  |
| Required Courses                  | 6   | 18 |  |  |
| Specialization Courses            | 2   | 6  |  |  |
| Total 8 24                        |     |    |  |  |
|                                   |     |    |  |  |
| Fields of Specialization          |     |    |  |  |
| Teaching of General Sc.           | 2/2 | 6  |  |  |
| Teaching of Urdu                  | 2/2 | 6  |  |  |
| Teaching of Mathematics           | 2/2 | 6  |  |  |
| Teaching of English 2 / 2 6       |     |    |  |  |

### SCHEME OF STUDIES

| Code     | Title                                | Cr. Hrs. | Code     | Title                                    | Cr. Hrs. |
|----------|--------------------------------------|----------|----------|--|----------|
| Semester | No 1                                 |          | Semester | No 2                                     |          |
| ENG201   | Business & Technical English Writing | 3        | EDU405   | Classroom Assessment                     | 3        |
| EDU101   | Foundations of Educations            | 3        | EDU403   | IT for Education                         | 3        |
| EDU201   | Learning Theories                    | 3        | XYZ      | Elective - I of Selected Specialization  | 3        |
| EDU301   | General Methods of Teaching          | 3        | XYZ—     | Elective - II of Selected Specialization | 3        |

Note: List of Elective Courses in each Specialization is available on University's website.



### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4.

### Note:

• Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 1 year / 2 Semesters** 

### AWARD OF DIPLOMA

To become eligible for the award of Post Graduate Diploma in Education, students are required to qualify prescribed courses amounting to at least 24 credit hours with a minimum CGPA of 2.00. Department

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Education

# Faculty of Management

# **Department of Management Sciences**

|   | <ul> <li>Master of Science (2–Year) Program</li> <li>MS (Business Administration) Thesis Track</li> <li>MBA (Equivalent to MS) Course Work Track</li> </ul>   | <b>Page</b><br>77<br>79   |
|---|---|---|
|   | <ul> <li>Masters (2-Year) Programs <ul> <li>Master of:</li> <li>Accounting</li> <li>Accounting &amp; Finance</li> <li>Banking &amp; Finance</li> <li>Business Administration (MBA)-Executive</li> <li>Business Economics (MB Econ)</li> <li>Business Studies (MBS) Equivalent to BBS</li> <li>Commerce (M.Com)</li> <li>Finance</li> <li>Human Resource Management (MHRM)</li> <li>Operations &amp; Supply Chain Management</li> <li>Public Administration (MPA)</li> </ul> </li> </ul> | 81<br>83<br>85<br>87<br>89<br>91<br>93<br>95<br>97<br>99<br>101 |
| • | <ul> <li>Bachelors of Science (4–Year) Programs</li> <li>BS (Accounting &amp; Finance)</li> <li>BS (Banking &amp; Finance)</li> <li>BS (Business Administration)</li> <li>BS (Commerce)</li> <li>BS (Management)</li> <li>BS (Marketing)</li> <li>BS (Public Administration)</li> <li>Bachelor of Business &amp; Information Technology (BBIT)</li> </ul>   | 103<br>105<br>107<br>111<br>113<br>115<br>117<br>119            |
|   | <ul> <li>Bachelors (2-Year) Programs</li> <li>BA Business Administration</li> <li>B.Com</li> <li>B.Sc. Mathematics, Statistics &amp; Economics</li> </ul>   | 121<br>123<br>125   |

### NOTE

The Virtual University of Pakistan may add new course(s)/subject(s) or replace existing ones at any time as a result of continuous review of scheme of studies of the programs in order to bring them at par with the courses being taught at top notch foreign universities. While reviewing the courses, needs of local industry and job markets are also given full consideration.

- Associate Degree (2-Year) Programs in:
  - Accounting & Finance
  - Human Resource Management
  - Islamic Banking
  - Operations Management
  - Sales and Marketing
  - Supply Chain Management
- Post Graduate Diploma (1-Year) Programs in:
  - Accounting
  - Accounting & Finance
  - Banking & Finance
  - Business Administration
  - Entrepreneurship & SME Management
  - Finance
  - Human Resource Management
  - Marketing Management
  - Public Administration
- Deficiency Semester(s) for MSBA/ MBA (Equivalent to MS)
- Specialization Certificates
- Zero Semester(s)
  - For MS Programs
  - For Undergraduate Programs
- Certificate Courses



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# Faculty of Management 76 127 **Department of Management Sciences** 129 131 133 135 137 139 140 141 142 143 144 145 146 147 148 149 173 173

### **MS IN BUSINESS ADMINISTRATION** [THESIS TRACK]

The MSBA (2-year / 4-semesters) program has been designed for candidates who intend to pursue their professional career as teaching faculty member in an educational institution or serve the industry at senior management position. The program provides opportunities to learn special business techniques required to excel in the challenging and rapidly changing world.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |       |    |  |  |  |
|---|-------|----|--|--|--|
| Course Type No. of Courses Credit Hours |       |    |  |  |  |
| Required Courses                        | 4     | 12 |  |  |  |
| Elective Courses                        | 4     | 12 |  |  |  |
| Research Thesis                         | 1     | 6  |  |  |  |
| Total                                   | 9     | 30 |  |  |  |
|   |       |    |  |  |  |
| Specialization Courses                  |       |    |  |  |  |
| Banking                                 | 4 / 4 | 12 |  |  |  |
| Finance                                 | 4 / 4 | 12 |  |  |  |
| HRM                                     | 4 / 4 | 12 |  |  |  |
| Management                              | 4 / 4 | 12 |  |  |  |
| Marketing                               | 4 / 4 | 12 |  |  |  |

### AREAS OF SPECIALIZATION

The students will have to select any one of the following specializations:

- Banking
- Finance
- Human Resource Management
- Management
- Marketing

### **ADMISSION ELIGIBILITY CRITERIA**

Candidates having 16-year education [BS in Business Administration, BS in Commerce, BBA (Accounting & Finance), BBA (Banking & Finance), BS (Accounting & Finance), BS (Banking & Finance), BBA(IT/MIS), BS (Management), BS (Marketing), MBA (Accounting & Finance), MBA (Banking & Finance), MBA (IT/MIS), Old MBA, MBS, M.Com, ACMA, ACA, and VU graduates holding BS (Public Administration), Master of Accounting, Master of Finance, Master of Accounting & Finance, Master of Banking & Finance and MBA-Executive (72-Cr. Hrs.)] degrees and other relevant equivalent gualification with at least Cumulative Grade Point Average (CGPA) 2.50 out of 4 / 1st division, wherein GPA system is not implemented, are eligible to apply. However, the candidates will also be required to qualify VU Entry Test (with minimum 50% marks).

### Note:

- · Candidate holding MPA, BBA(ITM), BBIT, MBA(ITM) etc. may be considered for admission through Deficiency Semesters, as prescribed by the University. However, candidates having studied common deficiency course(s) will be considered for course exemptions on case to case basis. In case of other relevant gualification, candidates may be required to provide equivalence letter/certificate from Higher Education Commission.
- Candidates having less than 1st division or CGPA below 2.50 out of 4 will be eligible for admission after successful completion of "Zero Semester".
- The candidates with 16-year non-business education [BE. MBBS. MA. M.Sc., and other equivalent qualifications from a recognized university/institution] will be required to gualify at least 36-credit hours of Deficiency Semesters business courses before they become eligible for admission towards MS in Business Administration program.

**DURATION: 2 years / 4 Semesters** 

### SCHEME OF STUDIES

| Code  | Title                          | Cr. Hrs |
|---|--------------------------------|---------|
| Semester N  | No 1                           |         |
| FIN722  | Corporate Finance              | 3       |
| MGT703  | Strategic Management           | 3       |
| STAT730   | Advanced Research Methods      | 3       |
| Semester N  | No 2                           |         |
| BNK701  | Banking Laws & Practices       | 3       |
| BNK703  | Consumer Banking               | 3       |
| (Banking Spe                                      | ecialization Courses)          |         |
| FIN723  | Taxation Management            | 3       |
| FIN730 Investment Analysis & Portfolio Management |                                | 3       |
| (Finance Spe                                      | ecialization Courses)          |         |
| HRM724  | Conflict Management            | 3       |
| HRM727 Human Resource Development                 |                                | 3       |
| (HRM Specia                                       | alization Courses)             |         |
| MGMT725   | Change Management              | 3       |
| MGMT728 Organizational Development                |                                | 3       |
| (Managemer  | nt Specialization Courses)     |         |
| MKT725  | Services Marketing             | 3       |
| MKT730  | MKT730 International Marketing |         |
| (Marketing S                                      | pecialization Courses)         |         |
| MKT703  | Strategic Marketing Management | 3       |
| RESEA   | BCH THESIS                     |         |

### RESEARCH I HESIS

In order to enroll for research thesis for MSBA degree, students must have achieved at least CGPA 3.25 out of 4 upon completion of prescribed course work.

### Faculty of Management

| Code         | Title                                | Cr. Hrs. |
|--------------|--------------------------------------|----------|
| Semester N   | lo 3                                 |          |
| BNK704       | Management of Financial Institutions | 3        |
| BNK725       | Credit & Risk Management             | 3        |
| (Banking Spe | ecialization Courses)                |          |
| FIN704       | Managerial Accounting                | 3        |
| FIN725       | Credit & Risk Management             | 3        |
| (Finance Spe | cialization Courses)                 |          |
| HRM713       | Performance Management               | 3        |
| MGT711       | Business & Labor Law                 | 3        |
| (HRM Specia  | lization Courses)                    |          |
| MGMT730      | Knowledge Management                 | 3        |
| MGMT729      | Crisis Management                    | 3        |
| (Managemer   | nt Specialization Courses)           |          |
| MKT724       | Brand Management                     | 3        |
| MKT731       | Consumer Behaviour                   | 3        |
| (Marketing S | pecialization Courses)               |          |
|              |                                      |          |
| Semester N   | lo 4                                 |          |
| RTS720       | Research Thesis                      | 6        |

### AWARD OF DEGREE

To become eligible for the award of MS in Business Administration degree, a student is required to complete at least 24-credit hour prescribed course work and 6-credit hours Thesis/Research with minimum CGPA of 2.50.

## MBA (EQUIVALENT TO MS) [COURSE WORK TRACK]

MBA (2-year/4-semesters) program is equivalent to MS in Business Administration which has been designed for candidates who intend to enhance their education to serve the industry at senior management positions. The program provides opportunities to learn special business techniques required to excel in the challenging and rapidly changing world.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Summary of Courses                      |       |    |  |  |  |  |
|---|-------|----|--|--|--|--|
| Course Type No. of Courses Credit Hours |       |    |  |  |  |  |
| Required Courses                        | 6     | 18 |  |  |  |  |
| Elective Courses                        | 4     | 12 |  |  |  |  |
| Total 10 30                             |       |    |  |  |  |  |
|   |       |    |  |  |  |  |
| Specialization Courses                  |       |    |  |  |  |  |
| Banking 4 / 4 12                        |       |    |  |  |  |  |
| Finance                                 | 4 / 4 | 12 |  |  |  |  |
| HRM                                     | 4 / 4 | 12 |  |  |  |  |
| Management                              | 4 / 4 | 12 |  |  |  |  |
| Marketing                               | 4 / 4 | 12 |  |  |  |  |

### AREAS OF SPECIALIZATION

The students will have to select any one of the following specializations:

- Banking
- Finance
- Human Resource Management
- Management
- Marketing

### ADMISSION ELIGIBILITY CRITERIA

Candidates having 16-year education [BS in Business Administration, BS in Commerce, BBA (Accounting & Finance), BBA (Banking & Finance), BS (Accounting & Finance), BS (Banking & Finance), BBA(IT/MIS), BS (Management), BS (Marketing), MBA (Accounting & Finance), MBA (Banking & Finance), MBA (IT/MIS), Old MBA, MBS, M.Com, ACMA, ACA, and VU graduates holding BS (Public Administration), Master of Accounting, Master of Finance, Master of Accounting & Finance, Master of Banking & Finance and MBA-Executive (72-Cr. Hrs.)] degrees and other relevant equivalent gualification with at least Cumulative Grade Point Average (CGPA) 2.50 out of 4 / 1st division, wherein GPA system is not implemented, are eligible to apply. However, the candidates will also be required to qualify VU Entry Test (with minimum 50% marks).

### Note:

- Candidate holding MPA, BBA(ITM), BBIT, MBA(ITM) etc. may be considered for admission through Deficiency Semesters, as prescribed by the University. However, candidates having studied common deficiency course(s) will be considered for course exemptions on case to case basis. In case of other relevant qualification, candidates may be required to provide equivalence letter/certificate from Higher Education Commission.
- Candidates having less than 1st division or CGPA below 2.50 out of 4 will be eligible for admission after successful completion of "Zero Semester".
- The candidates with 16-year non-business education [BE, MBBS, MA, M.Sc., and other equivalent qualifications from a recognized university/institution] will be required to qualify at least 36-credit hours of Deficiency Semesters business courses before they become eligible for admission towards MS in Business Administration program.

**DURATION: 2 years / 4 Semesters** 

### SCHEME OF STUDIES

| Code         | Title                                      | Cr. Hrs |
|--------------|--|---------|
| Semester N   | No 1                                       |         |
| FIN722       | Corporate Finance                          | 3       |
| MGT703       | Strategic Management                       | 3       |
| STAT730      | Advanced Research Methods                  | 3       |
| Semester N   | No 2                                       |         |
| BNK701       | Banking Laws & Practices                   | 3       |
| BNK703       | Consumer Banking                           | 3       |
| (Banking Spe | ecialization Courses)                      |         |
| FIN723       | Taxation Management                        | 3       |
| FIN730       | Investment Analysis & Portfolio Management | 3       |
| (Finance Spe | ecialization Courses)                      |         |
| HRM724       | Conflict Management                        | 3       |
| HRM727       | Human Resource Development                 | 3       |
| (HRM Specia  | alization Courses)                         |         |
| MGMT725      | Change Management                          | 3       |
| MGMT728      | Organizational Development                 | 3       |
| (Managemer   | nt Specialization Courses)                 |         |
| MKT725       | Services Marketing                         | 3       |
| MKT730       | International Marketing                    | 3       |
| (Marketing S | pecialization Courses)                     |         |
| MKT703       | Strategic Marketing Management             | 3       |
|              |  |         |

### Faculty of Management

| Code         | Title                                | Cr. Hrs. |
|--------------|--------------------------------------|----------|
| Semester N   | No 3                                 |          |
| BNK704       | Management of Financial Institutions | 3        |
| BNK725       | Credit & Risk Management             | 3        |
| (Banking Spe | ecialization Courses)                |          |
| FIN704       | Managerial Accounting                | 3        |
| FIN725       | Credit & Risk Management             | 3        |
| (Finance Spe | ecialization Courses)                |          |
| HRM713       | Performance Management               | 3        |
| MGT711       | Business & Labor Law                 | 3        |
| (HRM Specia  | alization Courses)                   |          |
| MGMT730      | Knowledge Management                 | 3        |
| MGMT729      | Crisis Management                    | 3        |
| (Managemer   | nt Specialization Courses)           |          |
| MKT724       | Brand Management                     | 3        |
| MKT731       | Consumer Behaviour                   | 3        |
| (Marketing S | pecialization Courses)               |          |
|              |                                      |          |
| Semester N   | No 4                                 |          |
| MGMT727      | Project Management                   | 3        |
| MGMT730      | Knowledge Management                 | 3        |

### AWARD OF DEGREE

To become eligible for the award of Master of Business Administration degree, a student is required to complete at least 30-credit hour prescribed course work with minimum CGPA of 2.50.

### **MASTER OF ACCOUNTING**

There is a growing demand for highly trained accountants who can guide their organizations through unpredictable economic environment that exists globally today. The Master of Accounting program offers students high-quality and rigorous instructions focused on thorough understanding of accounting functions in the workplace. It offers an opportunity to pursue specialized and in depth knowledge of the accounting discipline. The program prepares graduates to enter or further enhance their career as a professional accountant in financial institutions, industry, NGOs, private and public sector.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Summary of Courses                      |    |    |  |  |
|---|----|----|--|--|
| Course Type No. of Courses Credit Hours |    |    |  |  |
| Required Courses                        | 22 | 66 |  |  |
| Total                                   | 22 | 66 |  |  |

### AWARD OF DEGREE

To become eligible for the award of Master of Accounting degree, students are required to qualify prescribed courses amounting to at least 66 credit hours with a minimum Cumulative Grade Point Average of 2.00.

### SCHEME OF STUDIES

| Code     | Title                     | Cr. Hrs. |
|----------|---------------------------|----------|
| Semester | No 1                      |          |
| CS101    | Introduction to Computing | 3        |
| ECO401   | Economics                 | 3        |
| ENG301   | Business Communication    | 3        |
| MGT101   | Financial Accounting      | 3        |
| MGT211   | Introduction To Business  | 3        |
|          |                           |          |

### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree (14-year education) in [B.Com, BBA (2-year) and other relevant equivalent qualification] with at least 45% marks or CGPA 2.00 out of 4.

### Note:

- Candidates holding B.A/B.Sc. or Bachelor degree in disciplines other than those mentioned above may enter through Post Graduate Diploma(PGD in Accounting/ Finance/ Accounting & Finance/ Banking & Finance/ Business Administration/Public Administration/Marketing Management/ Entrepreneurship & SME Management or Human Resource Management) route.
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- VU graduates holding 2-year Bachelor degree are allowed only to continue in their respective BS (4-year) study programs.

### **DURATION: 2 years / 4 Semesters**

| Code     | Title                             | Cr. Hrs. | Code     | Title                                   | Cr. Hrs. |
|----------|-----------------------------------|----------|----------|---|----------|
| Semester | No 2                              |          | Semester | No 4                                    |          |
| ACC501   | Business Finance                  | 3        | FIN611   | Advanced Financial Accounting           | 3        |
| IT430    | E-Commerce                        | 3        | MGT404   | Managerial Accounting                   | 3        |
| MGT401   | Financial Accounting II           | 3        | MGT411   | Money & Banking                         | 3        |
| MGT402   | Cost & Management Accounting      | 3        | MGT601   | SME Management                          | 3        |
| MTH302   | Business Mathematics & Statistics | 3        | MGT705   | Advanced Cost and Management Accounting | g 3      |
|          |                                   |          | STA630   | Research Methods                        | 3        |
| Semester | No 3                              |          |          |   |          |
| ACC311   | Fundamentals of Auditing          | 3        |          |   |          |
| CS507    | Information Systems               | 3        |          |   |          |
| FIN621   | Financial Statement Analysis      | 3        |          |   |          |
| FIN623   | Taxation Management               | 3        |          |   |          |
| MGT602   | Entrepreneurship                  | 3        |          |   |          |
| MGT611   | Business & Labor Law              | 3        |          |   |          |



Faculty of Management

### **MASTER OF ACCOUNTING & FINANCE**

The program is designed to provide a unique blend of two disciplines and practices. It will enable the students to build the knowledge and learn those analytical skills that are needed to design and implement the management system that is used to plan and control a firm's performance. Students completing the program will be well-prepared to pursue careers in financial management or accounting. This program will also help the candidates who are already serving organizations / institutions at different levels and intend to enhance their knowledge and career.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Summary of Courses                      |    |    |  |  |
|---|----|----|--|--|
| Course Type No. of Courses Credit Hours |    |    |  |  |
| Required Courses                        | 22 | 66 |  |  |
| Total                                   | 22 | 66 |  |  |

### AWARD OF DEGREE

To become eligible for the award of Master of Accounting and Finance degree, students are required to qualify prescribed courses amounting to at least 66 credit hours with a minimum Cumulative Grade Point Average of 2.00.

### SCHEME OF STUDIES

| Code     | Title                     | Cr. Hrs. |  |
|----------|---------------------------|----------|--|
| Semester | No 1                      |          |  |
| CS101    | Introduction to Computing | 3        |  |
| ECO401   | Economics                 | 3        |  |
| ENG301   | Business Communication    | 3        |  |
| MGT101   | Financial Accounting      | 3        |  |
| MGT211   | Introduction To Business  | 3        |  |

### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree (14-year education) in [B.Com, BBA (2-year) and other relevant equivalent qualification] with at least 45% marks or CGPA 2.00 out of 4.

### Note:

- Candidates holding B.A/B.Sc. or Bachelor degree in disciplines other than those mentioned above may enter through Post Graduate Diploma (PGD in Accounting/ Finance/ Accounting & Finance/ Banking & Finance/ Business Admin./ Public Administration/ Marketing Management/ Entrepreneurship & SME Management or Human Resource Management) route.
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- VU graduates holding 2-year Bachelor degree are allowed only to continue in their respective BS (4-year) study programs.

**DURATION: 2 years / 4 Semesters** 

| Code          | Title                             | Cr. Hrs. |  |  |
|---------------|-----------------------------------|----------|--|--|
| Semester No 2 |                                   |          |  |  |
| IT430         | E-Commerce                        | 3        |  |  |
| MGT201        | Financial Management              | 3        |  |  |
| MGT401        | Financial Accounting II           | 3        |  |  |
| MGT402        | Cost & Management Accounting      | 3        |  |  |
| MTH302        | Business Mathematics & Statistics | 3        |  |  |

### Semester No 3

| CS507  | Information Systems           | 3 |
|--------|-------------------------------|---|
| FIN611 | Advanced Financial Accounting | 3 |
| FIN621 | Financial Statement Analysis  | 3 |
| FIN623 | Taxation Management           | 3 |
| MGT602 | Entrepreneurship              | 3 |
| MGT611 | Business & Labor Law          | 3 |
|        |                               |   |

### Semester No 4

| ACC311 | Fundamentals of Auditing                   | 3 |
|--------|--|---|
| FIN622 | Corporate Finance                          | 3 |
| FIN624 | Islamic Mode of Financing                  | 3 |
| FIN630 | Investment Analysis & Portfolio Management | 3 |
| MGT601 | SME Management                             | 3 |
| MGT705 | Advanced Cost and Management Accounting    | 3 |

# I Chose VU to GIVE BOOST TO MY CAREER

Learning is a never ending phenomenon. Though is my career is stable, I want to get out of my comfort zone to seek more. Virtual University's online learning facility and evolving curriculum is an upside for anyone like me who would want to acquire international-standard education. I see myself making smart career moves.

### Ijaz Ahmad Regional Chief,

Bank of Punjab

## **MASTER OF BANKING & FINANCE**

This program is designed to produce highly skilled, analytical and forward-thinking graduates who are ready to slot into a specialized role in the rapidly growing banking industry, finance and financial consultancy sectors. The program will also be suitable for existing employees of these organizations to provide in depth understanding of the financial markets and their institutions as well as a clear comprehension of the financial instruments at their disposal.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Summary of Courses                      |    |    |  |  |
|---|----|----|--|--|
| Course Type No. of Courses Credit Hours |    |    |  |  |
| Required Courses                        | 22 | 66 |  |  |
| Total                                   | 22 | 66 |  |  |

### AWARD OF DEGREE

To become eligible for the award of Master of Banking and Finance degree, students are required to qualify prescribed courses amounting to at least 66 credit hours with a minimum Cumulative Grade Point Average of 2.00.

### SCHEME OF STUDIES

| Code          | Title                     | Cr. Hrs. |  |
|---------------|---------------------------|----------|--|
| Semester No 1 |                           |          |  |
| CS101         | Introduction to Computing | 3        |  |
| ECO401        | Economics                 | 3        |  |
| ENG301        | Business Communication    | 3        |  |
| MGT101        | Financial Accounting      | 3        |  |
| MGT301        | Principles of Marketing   | 3        |  |

### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree (14-year education) in [B.Com, BBA (2-year) and other relevant equivalent qualification] with at least 45% marks or CGPA of at least 2.00 out of 4.

### Note:

- Candidates holding B.A/B.Sc. or Bachelor degree in disciplines other than those mentioned above may enter through Post Graduate Diploma (PGD) route.
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- VU graduates holding 2-year Bachelor degree are allowed only to continue in their respective BS (4-year) study programs.

**DURATION: 2 years / 4 Semesters** 

| Code     | Title                             | Cr. Hrs. |  |  |
|----------|-----------------------------------|----------|--|--|
| Semester | Semester No 2                     |          |  |  |
| ACC501   | Business Finance                  | 3        |  |  |
| IT430    | E-Commerce                        | 3        |  |  |
| MGT404   | Managerial Accounting             | 3        |  |  |
| MGT411   | Money & Banking                   | 3        |  |  |
| MTH302   | Business Mathematics & Statistics | 3        |  |  |

### Semester No 3

| BNK601 | Banking Laws & Practices             | 3     |
|--------|--------------------------------------|-------|
| CS507  | Information Systems                  | 3     |
| FIN621 | Financial Statement Analysis         | <br>3 |
| FIN622 | Corporate Finance                    | <br>3 |
| FIN623 | Taxation Management                  | <br>3 |
| MGT604 | Management of Financial Institutions | <br>3 |

### Semester No 4

| 3NK603  | Consumer Banking                           | 3 |
|---------|--|---|
| IN624   | Islamic Mode of Financing                  | 3 |
| IN625   | Credit & Risk Management                   | 3 |
| IN630   | Investment Analysis & Portfolio Management | 3 |
| /IGT601 | SME Management                             | 3 |
| /KT610  | Customer Relationship Management           | 3 |
|         |  |   |

# I Chose VU for an Experience WORTH CHERISHING

VU has helped me realize my true potential. Today I have a highly rewarding career as a leading professional and this would not have been possible without VU's investment in my future. No other institution helps you acquire advanced knowledge with flexible timings.

### Muhammad Naeem

Director General, Frequency Allocation Board, Government of Pakistan

## **MASTER OF BUSINESS ADMINISTRATION (MBA-EXECUTIVE)**

The MBA (Executive) program is designed for candidates having 14-year of education with 4-year job experience at managerial cadre who want to adopt business as career and like to enhance their professional business skills. The program provides opportunities to learn special business techniques required to excel in the challenging and rapidly changing world.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Summary of Courses     |                |                     |  |
|------------------------|----------------|---------------------|--|
| Course Type            | No. of Courses | <b>Credit Hours</b> |  |
| Required Courses       | 19             | 57                  |  |
| Elective Courses       | 4              | 12                  |  |
| Internship/ Project    | 1              | 3                   |  |
| Total                  | 24             | 72                  |  |
|                        |                |                     |  |
| Specialization Courses |                |                     |  |
| Banking                | 4 / 4          | 12                  |  |
| Finance                | 4 / 4          | 12                  |  |
| HRM                    | 4 / 4          | 12                  |  |
| IT                     | 4 / 4          | 12                  |  |
| Management             | 4 / 4          | 12                  |  |
| Marketing              | 4 / 4          | 12                  |  |

### SCHEME OF STUDIES

| Code     | Title                             | Cr. Hrs. |
|----------|-----------------------------------|----------|
| Semester | No 1                              |          |
| ACC501   | Business Finance                  | 3        |
| CS101    | Introduction to Computing         | 3        |
| MGT101   | Financial Accounting              | 3        |
| MGT211   | Introduction To Business          | 3        |
| MGT503   | Principles of Management          | 3        |
| MTH302   | Business Mathematics & Statistics | 3        |

### ADMISSION ELIGIBILITY CRITERIA

Candidate must have minimum 14-year education with 4-year experience / 16-year education with 2-year experience with followings:

- At least 2nd division (minimum 45 % marks).
- Experience must be at managerial position in a public or private sector organization.

### Note:

- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- VU graduates holding 2-year Bachelor degree are allowed only to continue in their respective BS (4-year) study programs.

DURATION: 2 years / 4 Semesters

### AWARD OF DEGREE

To become eligible for the award of MBA (Executive) degree, a student is required to complete prescribed course work with minimum CGPA of 2.00.

| Code     | Title                        | Cr. Hrs. |
|----------|------------------------------|----------|
| Semester | No 2                         |          |
| ENG301   | Business Communication       | 3        |
| MGT201   | Financial Management         | 3        |
| MGT301   | Principles of Marketing      | 3        |
| MGT402   | Cost & Management Accounting | 3        |
| MGT502   | Organizational Behaviour     | 3        |
| STA630   | Research Methods             | 3        |
| STA630   | Research Methods             |          |

| Code         | Title                              | Cr. Hrs. | Code                             | Title                                      | Cr. Hrs. |
|--------------|------------------------------------|----------|----------------------------------|--|----------|
| Semester     | No 3                               |          | Semester I                       | No 4                                       |          |
| BNK601       | Banking Laws & Practices           | 3        | FIN625                           | Credit & Risk Management                   | 3        |
| BNK603       | Consumer Banking                   | 3        | MGT604                           | Management of Financial Institutions       | 3        |
| (Banking Sp  | pecialization Courses)             |          | (Banking Sp                      | ecialization Courses)                      |          |
| CS201        | Introduction to Programming        | 3        | CS610                            | Computer Network                           | 3        |
| CS403        | Database Management Systems        | 3        | CS615                            | Software Project Management                | 3        |
| (Information | Technology Specialization Courses) |          | (Information                     | Technology Specialization Courses)         |          |
| FIN621       | Financial Statement Analysis       | 3        | FIN623                           | Taxation Management                        | 3        |
| FIN622       | Corporate Finance                  | 3        | FIN630                           | Investment Analysis & Portfolio Management | 3        |
| (Finance Sp  | ecialization Courses)              |          | (Finance Specialization Courses) |  |          |
| HRM624       | Conflict Management                | 3        | HRM627                           | Human Resource Development                 | 3        |
| MGMT611      | Human Relations                    | 3        | MGMT628                          | Organizational Development                 | 3        |
| (HRM Spec    | ialization Courses)                |          | (HRM Specie                      | alization Courses)                         |          |
| MGMT623      | Leadership & Team Management       | 3        | MGMT625                          | Change Management                          | 3        |
| MGT510       | Total Quality Management           | 3        | MGMT630                          | Knowledge Management                       | 3        |
| (Manageme    | ent Specialization Courses)        |          | (Managemei                       | nt Specialization Courses)                 |          |
| MKT610       | Customer Relationship Management   | 3        | MKT624                           | Brand Management                           | 3        |
| MKT621       | Advertising & Promotion            | 3        | MKT630                           | International Marketing                    | 3        |
| (Marketing   | Specialization Courses)            |          | (Marketing S                     | pecialization Courses)                     |          |
| CS507        | Information Systems                | 3        | ECO404                           | Managerial Economics                       | 3        |
| ECO401       | Economics                          | 3        | MGT602                           | Entrepreneurship                           | 3        |
| MGT501       | Human Resource Management          | 3        | MGT603                           | Strategic Management                       | 3        |
| MKT501       | Marketing Management               | 3        | XYZ619                           | Internship Report/ Final Project           | 3        |

### PROJECT/INTERNSHIP REPORT

Students are required to complete a Project/Internship Report of 3-credit hours in the final semester of their MBA (Executive) program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

### Faculty of Management

### MASTER OF BUSINESS ECONOMICS (MB Econ)

The Master of Business Economics provides broad understanding of latest and emerging trends in the field of business and economics. It emphasises on the studies of impact on private and public sector organizations due to Government polices and continuously changing global business environment. The program equips the students to face these challenges and prove themselves as future business managers or policy consultants due to their great analytical and problem solving skills.

### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, Graded Discussions Boards (GDBs), mid-term and final-term exams. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses                     |    |    |  |
|--|----|----|--|
| Course Type No. of Courses Credit Hour |    |    |  |
| Required Courses                       | 23 | 69 |  |
| Internship/ Project                    | 1  | 3  |  |
| Total                                  | 24 | 72 |  |

### AWARD OF DEGREE

To become eligible for the award of Master of Business Economics degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

### SCHEME OF STUDIES

| Title                             | Cr. Hrs.   |
|-----------------------------------|--|
| No 1                              |  |
| Introduction to Computing         | 3  |
| Microeconomics                    | 3  |
| Financial Accounting              | 3  |
| Introduction To Business          | 3  |
| Principles of Management          | 3  |
| Business Mathematics & Statistics | 3  |
|                                   | No 1 Introduction to Computing Microeconomics Financial Accounting Introduction To Business Principles of Management |

### ADMISSION ELIGIBILITY CRITERIA

At least 45% marks or CGPA of 2.00 out of 4 in B.Com, BBA (2- years) or B.Sc. (Math, Stat & Economics courses) from a recognized Note:

- Candidates holding B.A/B.Sc. or Bachelor degree in disciplines other than those mentioned above may enter through Post Graduate Diploma (PGD in Accounting/ Finance/ Accounting & Finance/ Banking & Finance/ Business Administration/ Public Administration/ Marketing Management/ Entrepreneurship & SME Management or Human Resource Management) route.
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- VU graduates holding 2-year Bachelor degree are allowed only to continue in their respective BS (4-year) study programs.

**DURATION: 2 years / 4 Semesters** 

### **PROJECT/INTERNSHIP REPORT**

Students are required to complete a Project/ Internship Report of 3-credit hours in the final semester of their MB Econ program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

| Code     | Title                     | Cr. Hrs. |
|----------|---------------------------|----------|
| Semester | No 2                      |          |
| CS507    | Information Systems       | 3        |
| ECO403   | Macroeconomics            | 3        |
| MGT201   | Financial Management      | 3        |
| MGT301   | Principles of Marketing   | 3        |
| MGT411   | Money & Banking           | 3        |
| MGT501   | Human Resource Management | 3        |

### Semester No 3

| ECO404        | Managerial Economics                       | 3 |
|---------------|--|---|
| FIN622        | Corporate Finance                          | 3 |
| FIN630        | Investment Analysis & Portfolio Management | 3 |
| MGMT629       | Crisis Management                          | 3 |
| MGT404        | Managerial Accounting                      | 3 |
| STA630        | Research Methods                           | 3 |
|               |  |   |
| Semester N    | No 4                                       |   |
| ECO406        | Mathematical Economics                     | 3 |
| ECO501        | Development Economics                      | 3 |
| ECO601        | Business Econometrics                      | 3 |
| ECO602        | Forecasting & Budgeting                    | 3 |
| ECO603        | International Economics                    | 3 |
| ECO619        | Final Project - Economics                  | 3 |
| ECOI619       | Internship Report - Economics              | 3 |
| (Option to se | elect one)                                 |   |

# I Chose VU for a Guaranteed BRIGHT FUTURE

Studying at Virtual University of Pakistan has been an incredible experience, one that I will value for life. At VU I was able to earn a degree while simultaneously pursuing a career in my field. This has given a great boost to my future success.

### Muhammad Khalid

Deputy Secretary, Economic Affairs to US, Financial Adviser

### **MASTER OF BUSINESS STUDIES (MBS)**

The MBS program offered by the Department of Management Sciences is in-line with the roadmap for business studies approved by National Business Education Accreditation Council (NBEAC) and curriculum revised by Higher Education Commission of Pakistan. After successful completion of the program, candidates can become eligible for taking admission to MBA (Eq. to MS)/MSBA program. The program bridges the gap for the candidates who have not taken business courses during their 2-year Bachelor's degree (14-year education) or equivalent degree from a recognized university/institution and now intend to pursue education in the area of business studies. The program is equivalent to BBS and old MBA (16-year education).

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                   |    |    |  |
|--------------------------------------|----|----|--|
| Course Type No. of Courses Credit Ho |    |    |  |
| Required Courses                     | 24 | 72 |  |
| Total                                | 24 | 72 |  |

### SCHEME OF STUDIES

| Code     | Title                     | Cr. Hrs. |
|----------|---------------------------|----------|
| Semester | No 1                      |          |
| CS101    | Introduction to Computing | 3        |
| ECO402   | Microeconomics            | 3        |
| MGT101   | Financial Accounting      | 3        |
| MGT211   | Introduction To Business  | 3        |
| MGT301   | Principles of Marketing   | 3        |
| MGT503   | Principles of Management  | 3        |
|          |                           |          |

### **ADMISSION ELIGIBILITY CRITERIA**

At least 45% marks or CGPA 2.00 out of 4 in Bachelor (2- year) from a recognized university/ institute.

Note:

 Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To become eligible for the award of Master of Business Studies (MBS) degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Code     | Title                             | Cr. Hrs. |
|----------|-----------------------------------|----------|
| Semester | No 2                              |          |
| ACC501   | Business Finance                  | 3        |
| ECO403   | Macroeconomics                    | 3        |
| ENG301   | Business Communication            | 3        |
| MGT501   | Human Resource Management         | 3        |
| MKT501   | Marketing Management              | 3        |
| MTH302   | Business Mathematics & Statistics | 3        |

### Semester No 3

| CS507  | Information Systems          | 3 |
|--------|------------------------------|---|
| MGT401 | Financial Accounting II      | 3 |
| MGT402 | Cost & Management Accounting | 3 |
| MGT502 | Organizational Behaviour     | 3 |
| MGT611 | Business & Labor Law         | 3 |
| STA630 | Research Methods             | 3 |
|        |                              |   |

### Semester No 4

| ECO404 | Managerial Economics         | 3 |
|--------|------------------------------|---|
| MGT201 | Financial Management         | 3 |
| MGT504 | Organization Theory & Design | 3 |
| MGT602 | Entrepreneurship             | 3 |
| MGT610 | Business Ethics              | 3 |
| MKT530 | Consumer Behaviour           | 3 |

# I Chose VU to Open Doors for the WORLD of **OPPORTUNITIES**

**G**Time and money, these two things are quite valuable in today's fast-paced world. I could benefit from VU's affordable fee structure sitting at home – a win-win for any working professional aspiring to further his degree with time constraint. I attribute my professional success to VU. 🕊

### Sultan Muhammad

Head of Branch Operations, U-Fone Banking, Head Office

### MASTER OF COMMERCE (M.Com)

The Master of Commerce (M.Com) degree program concentrates on commerce, management and economics related subjects. The program covers core competencies in accounting, finance, information system and e-commerce. This innovative program is designed for candidates who intend to pursue their career in the fields of accounts / finance and are either at the beginning or mid of their professional career.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                    |       |    |  |  |
|---------------------------------------|-------|----|--|--|
| Course Type No. of Courses Credit Hou |       |    |  |  |
| Required Courses                      | 19    | 57 |  |  |
| Elective Courses                      | 4     | 12 |  |  |
| Internship/ Project                   | 1     | 3  |  |  |
| Total                                 | 24    | 72 |  |  |
|                                       |       |    |  |  |
| Specialization Cou                    | rses  |    |  |  |
| Accounting                            | 4 / 4 | 12 |  |  |
| Banking                               | 4 / 4 | 12 |  |  |
| Finance                               | 4 / 4 | 12 |  |  |
| HRM                                   | 4 / 4 | 12 |  |  |
| Management                            | 4 / 4 | 12 |  |  |
| Marketing 4/4 12                      |       |    |  |  |

### SCHEME OF STUDIES

| Code     | Title                      | Cr. Hrs. |
|----------|----------------------------|----------|
| Semester | No 1                       |          |
| ENG301   | Business Communication     | 3        |
| MGT201   | Financial Management       | 3        |
| MGT301   | Principles of Marketing    | 3        |
| MGT601   | SME Management             | 3        |
| SOC101   | Introduction to Sociology  | 3        |
| STA301   | Statistics and Probability | 3        |
|          |                            |          |

### ADMISSION ELIGIBILITY CRITERIA

At least 45% marks or CGPA of 2.00 out of 4 in B.Com, BBA (2- year) from a recognized University/Institute.

Note:

- Candidates holding B.A/B.Sc. or Bachelor degree in disciplines other than those mentioned above may enter through Post Graduate Diploma (PGD) route.
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- VU graduates holding 2-year Bachelor degree are allowed only to continue in their respective BS (4-year) study programs.

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To become eligible for the award of M.Com degree, a student is required to complete prescribed course work with minimum CGPA of 2.00.

| Code                            | Title                        | Cr. Hrs. |  |
|---------------------------------|------------------------------|----------|--|
| Semeste                         | r No 2                       |          |  |
| CS507                           | Information Systems          | 3        |  |
| MGT101                          | Financial Accounting         | 3        |  |
| MGT402                          | Cost & Management Accounting | 3        |  |
| MGT503 Principles of Management |                              | 3        |  |
| MGT602                          | IGT602 Entrepreneurship      |          |  |
| MGT610                          | Business Ethics              | 3        |  |
|                                 |                              |          |  |

| Code         | Title                            | Cr. Hrs. | Code         | Title                                      | Cr. Hrs. |
|--------------|----------------------------------|----------|--------------|--|----------|
| Semester I   | No 3                             |          | Semester I   | No 4                                       |          |
| MGT404       | Managerial Accounting            | 3        | FIN611       | Advanced Financial Accounting              | 3        |
| MGT611       | Business & Labor Law             | 3        | FIN623       | Taxation Management                        | 3        |
| (Accounting  | Specialization Courses)          |          | (Accounting  | Specialization Courses)                    |          |
| BNK601       | Banking Laws & Practices         | 3        | BNK603       | Consumer Banking                           | 3        |
| MGT411       | Money & Banking                  | 3        | FIN624       | Islamic Mode of Financing                  | 3        |
| (Banking Sp  | ecialization Courses)            |          | (Banking Sp  | ecialization Courses)                      |          |
| FIN621       | Financial Statement Analysis     | 3        | FIN625       | Credit & Risk Management                   | 3        |
| FIN624       | Islamic Mode of Financing        | 3        | FIN630       | Investment Analysis & Portfolio Management | 3        |
| (Finance Sp  | ecialization Courses)            |          | (Finance Spe | ecialization Courses)                      |          |
| HRM613       | Performance Management           | 3        | HRM617       | Training and Development                   | 3        |
| MGT611       | Business & Labor Law             | 3        | MGMT623      | Leadership & Team Management               | 3        |
| (HRM Speci   | alization Courses)               |          | (HRM Specia  | alization Courses)                         |          |
| MGMT611      | Human Relations                  | 3        | MGMT622      | Management Skills                          | 3        |
| MGT504       | Organization Theory & Design     | 3        | MGMT625      | Change Management                          | 3        |
| (Manageme    | nt Specialization Courses)       |          | (Managemei   | nt Specialization Courses)                 |          |
| MKT501       | Marketing Management             | 3        | MKT621       | Advertising & Promotion                    | 3        |
| MKT610       | Customer Relationship Management | 3        | MKT624       | Brand Management                           | 3        |
| (Marketing S | Specialization Courses)          |          | (Marketing S | pecialization Courses)                     |          |
| MGT401       | Financial Accounting II          | 3        | MGT510       | Total Quality Management                   | 3        |
| MGT501       | Human Resource Management        | 3        | MGT603       | Strategic Management                       | 3        |
| MGT502       | Organizational Behaviour         | 3        | MGT613       | Production / Operations Management         | 3        |
| STA630       | Research Methods                 | 3        | XYZ619       | Internship Report/ Final Project           | 3        |

### PROJECT/INTERNSHIP REPORT

Students are required to complete a Project/Internship Report of 3-credit hours in the final semester of their M.Com program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

### Faculty of Management

### **MASTER OF FINANCE**

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The program provides a well-integrated knowledge of financial accounting, finance & investment, and management accounting, together with the ability to relate this to the wider issues of management and corporate strategy. It prepares graduates for a wide range of careers in corporate finance, investment management, financial analysis and personal financial planning.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Summary of Courses                      |    |    |  |  |
|---|----|----|--|--|
| Course Type No. of Courses Credit Hours |    |    |  |  |
| <b>Required Courses</b>                 | 22 | 66 |  |  |
| Total 22 66                             |    |    |  |  |

### AWARD OF DEGREE

To become eligible for the award of Master of Finance degree, students are required to qualify prescribed courses amounting to at least 66 credit hours with a minimum Cumulative Grade Point Average of 2.00.

### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree (14-year education) in [B.Com, BBA (2-year) and other relevant equivalent qualification] with at least 45% marks or CGPA 2.00 out of 4.

### Note:

- Candidates holding B.A/B.Sc. or Bachelor degree in disciplines other than those mentioned above may enter through Post Graduate Diploma (PGD) route.
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- VU graduates holding 2-year Bachelor degree are allowed only to continue in their respective BS (4-year) study programs.

**DURATION: 2 years / 4 Semesters** 

### SCHEME OF STUDIES

| Code          | Title                     | Cr. Hrs. |  |  |
|---------------|---------------------------|----------|--|--|
| Semester No 1 |                           |          |  |  |
| CS101         | Introduction to Computing | 3        |  |  |
| ECO401        | Economics                 | 3        |  |  |
| ENG301        | Business Communication    | 3        |  |  |
| MGT101        | Financial Accounting      | 3        |  |  |
| MGT211        | Introduction To Business  | 3        |  |  |
|               |                           |          |  |  |



| Code          | Title                             | Cr. Hrs. |  |  |
|---------------|-----------------------------------|----------|--|--|
| Semester No 2 |                                   |          |  |  |
| ECO404        | Managerial Economics              | 3        |  |  |
| IT430         | E-Commerce                        | 3        |  |  |
| MGT201        | Financial Management              | 3        |  |  |
| MGT411        | Money & Banking                   | 3        |  |  |
| MTH302        | Business Mathematics & Statistics | 3        |  |  |

### Semester No 3

| CS507  | Information Systems          | 3 |
|--------|------------------------------|---|
| FIN621 | Financial Statement Analysis | 3 |
| FIN622 | Corporate Finance            | 3 |
| FIN623 | Taxation Management          | 3 |
| MGT602 | Entrepreneurship             | 3 |
| MGT611 | Business & Labor Law         | 3 |
|        |                              |   |

### Semester No 4 Islamic Mode of Financing **FIN624** Credit & Risk Management **FIN625** 3 Investment Analysis & Portfolio Management FIN630 Total Quality Management MGT510 3 SME Management MGT601 3 **Research Methods** STA630 3

### Faculty of Management



### MASTER OF HUMAN RESOURCE MANAGEMENT

The Masters of Human Resource Management (MHRM) has been designed for those who want to excel their career in human resource management. This program is ideal for current and aspiring HR professionals who are in the quest of sharpening their HRM skills and effectively dealing contemporary issues related to the management of human resource. The courses offered under this program will enable the graduates to manage and develop human resources, performance management, labor laws and industrial relations and leadership. This program will also give an opportunity to learn from highly competent and experienced faculty.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |    |  |  |  |
|---|----|----|--|--|--|
| Course Type No. of Courses Credit Hours |    |    |  |  |  |
| Required Courses                        | 21 | 63 |  |  |  |
| Internship/ Project                     | 1  | 3  |  |  |  |
| Total                                   | 22 | 66 |  |  |  |
|   |    |    |  |  |  |

### AWARD OF DEGREE

To become eligible for the award of Master of Human Resource Management degree, students are required to gualify prescribed courses amounting to at least 66 credit hours with a minimum Cumulative Grade Point Average of 2.00.

### SCHEME OF STUDIES

| Code     | Title                      | Cr. Hrs. |
|----------|----------------------------|----------|
| Semester | No 1                       |          |
| CS101    | Introduction to Computing  | 3        |
| ECO401   | Economics                  | 3        |
| ENG301   | Business Communication     | 3        |
| MGT503   | Principles of Management   | 3        |
| PSY101   | Introduction to Psychology | 3        |
|          |                            |          |

### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree equivalent to 14-year education from a recognized University/Institute with at least 45% marks or CGPA 2.00 out of 4.

### Note:

- Candidates holding B.A/B.Sc. or Bachelor degree in disciplines other than those mentioned above may enter through Post Graduate Diploma (PGD) route.
- · Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- · VU graduates holding 2-year Bachelor degree are allowed only to continue in their respective BS (4-year) study programs.

**DURATION: 2 years / 4 Semesters** 

### **PROJECT/INTERNSHIP REPORT**

Students are required to complete a Project/ Internship Report of 3-credit hours in the final semester the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation.

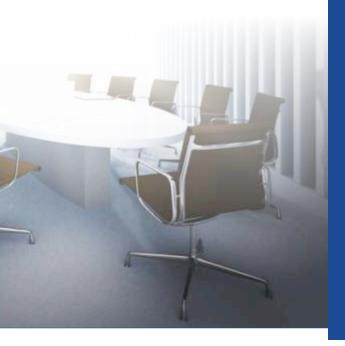
Students taking Internship course are required to complete 6 to 8 weeks internship in an organization of repute and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

| Code          | Title                             | Cr. Hrs. |         |                            |   |
|---------------|-----------------------------------|----------|---------|----------------------------|---|
| Semester No 2 |                                   | Code     | Title   | Cr. Hrs.                   |   |
| MGT101        | Financial Accounting              | 3        | MGT610  | Business Ethics            | 3 |
| MGT301        | Principles of Marketing           | 3        | MGT612  | Corporate Law              | 3 |
| MGT501        | Human Resource Management         | 3        | MGMT611 | Human Relations            | 3 |
| MGT502        | Organizational Behaviour          | 3        | MGMT622 | Management Skills          | 3 |
| MTH302        | Business Mathematics & Statistics | 3        | MGMT625 | Change Management          | 3 |
|               |                                   |          | SOC401  | Cultural Anthropology      | 3 |
| Semester      | No 3                              |          | MGMT627 | Project Management         | 3 |
| CS507         | Information Systems               | 3        | MGMT628 | Organizational Development | 3 |
| HRM617        | Training and Development          | 3        | MGMT629 | Crisis Management          | 3 |
| MGT201        | Financial Management              | 3        | MGMT630 | Knowledge Management       | 3 |
| MGT611        | Business & Labor Law              | 3        | HRM624  | Conflict Management        | 3 |
| STA630        | Research Methods                  | 3        | ABC     | International HRM          | 3 |
|               |                                   |          |         |                            |   |

### Semester No 4

| MGMT623 | Leadership & Team Management          | 3 |
|---------|---------------------------------------|---|
| ABC     | Performance & Compensation Management | 3 |
| ABC     | Strategic Management/ HRM             | 3 |
| ABC     | Elective - I                          | 3 |
| ABC     | Elective - II                         | 3 |
| XYZ619  | Internship Report/ Final Project      | 3 |





### **MASTER OF OPERATIONS & SUPPLY CHAIN MANAGEMENT**

Master of Operations & Supply Chain Management (MOSCM) is a comprehensive program that has been designed for those who want to excel their career in Operations and/or Supply Chain Management. This program is ideal for current and aspiring professionals who are in quest of sharpening their operations/ procurement skills and effectively dealing contemporary issues related to the organizational operations. The courses offered under this program will enable the graduates to develop and manage organizational systems, plan & control production, business operations and supply chain to gain competitive advantage.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses  |                |                     |  |
|---------------------|----------------|---------------------|--|
| Course Type         | No. of Courses | <b>Credit Hours</b> |  |
| Required Courses    | 21             | 63                  |  |
| Internship/ Project | 1              | 3                   |  |
| Total               | 22             | 66                  |  |
|                     |                |                     |  |

### AWARD OF DEGREE

To become eligible for the award of Master of Operations & Supply Chain Management(MOSCM) degree, students are required to qualify prescribed courses amounting to at least 66 credit hours with a minimum Cumulative Grade Point Average of 2.00.

### SCHEME OF STUDIES

| Code     | Title                     | Cr. Hrs. |
|----------|---------------------------|----------|
| Semester | No 1                      |          |
| CS101    | Introduction to Computing | 3        |
| ECO402   | Microeconomics            | 3        |
| ENG301   | Business Communication    | 3        |
| MGT503   | Principles of Management  | 3        |
| MTH100   | General Mathematics       | 3        |
|          |                           |          |

### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree equivalent to 14-year education from a recognized University/Institute with at least 45% marks or CGPA 2.00 out of 4.

### Note:

- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- VU graduates holding 2-year Bachelor degree are allowed only to continue in their respective BS (4-year) study programs.

**DURATION: 2 years / 4 Semesters** 

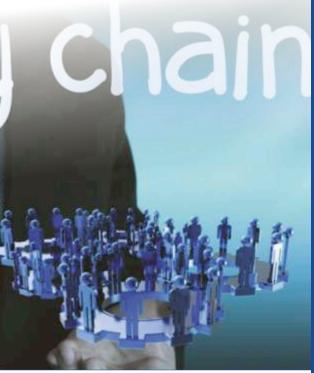
### **PROJECT/INTERNSHIP REPORT**

Students are required to complete a Project/ Internship Report of 3-credit hours in the final semester of the program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation.

Students taking Internship course are required to complete 6 to 8 weeks internship in an organization of repute and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

| Code     | Title                                    | Cr. Hrs. | LIST O  | FELECTIVE COURSES                     |          |
|----------|--|----------|---------|---------------------------------------|----------|
| Semester | No 2                                     |          | Code    | Title                                 | Cr. Hrs. |
| MGT101   | Financial Accounting                     | 3        | MGMT625 | Change Management                     | 3        |
| MGT301   | Principles of Marketing                  | 3        | MGMT627 | Project Management                    | 3        |
| MGT501   | Human Resource Management                | 3        | ABC     | Transportation & Logistics Management | 3        |
| MGT613   | Production / Operations Management       | 3        | ABC     | Warehouse Management                  | 3        |
| MTH302   | Business Mathematics & Statistics        | 3        | ABC     | System Dynamics                       | 3        |
|          |  |          | ABC     | Industrial Hygiene & Safety           | 3        |
| Semester | No 3                                     |          | ABC     | International HRM                     | 3        |
| CS507    | Information Systems                      | 3        |         |                                       |          |
| MGMT614  | Supply Chain Management                  | 3        |         |                                       |          |
| MGT201   | Financial Management                     | 3        |         |                                       |          |
| MGT510   | Total Quality Management                 | 3        |         |                                       |          |
| STA301   | Statistics and Probability               | 3        |         |                                       |          |
| STA630   | Research Methods                         | 3        |         |                                       |          |
|          |  |          |         |                                       |          |
| Semester | No 4                                     |          |         |                                       |          |
| ABC      | Strategic Management / O&SC              | 3        | P 28    |                                       |          |
| MTH601   | Operations Research                      | 3        |         |                                       |          |
| ABC      | Production, Planning & Inventory Control | 3        |         |                                       |          |
| ABC      | Elective - I                             | 3        |         |                                       |          |
|          | Elective - II                            | 3        |         |                                       |          |
| ABC      |  |          | 80      | D DO D D D D                          |          |

# **Department of Management Sciences**



### **MASTER OF PUBLIC ADMINISTRATION (MPA)**

Master of Public Administration (MPA) program has been designed to prepare the individuals who intend to serve as managers in the executive arm of local, provincial, federal governments, non-government, and nonprofit organizations etc. It mainly focuses on the roles, development, principles of public administration, public policy management and its implementation. It is an interdisciplinary study program drawing from fields such as anthropology, economics, law, political science, sociology and regional planning in order to equip MPA graduates with relevant skills and knowledge.

### ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, graded discussions boards (GDBs), mid and final term examinations. The mid and final term examinations are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

| Summary of Courses  |                |                     |  |
|---------------------|----------------|---------------------|--|
| Course Type         | No. of Courses | <b>Credit Hours</b> |  |
| Required Courses    | 23             | 69                  |  |
| Internship/ Project | 1              | 3                   |  |
| Total               | 24             | 72                  |  |

### SCHEME OF STUDIES

| Code     | Title                                 | Cr. Hrs. |
|----------|---------------------------------------|----------|
| Semester | No 1                                  |          |
| CS101    | Introduction to Computing             | 3        |
| ECO401   | Economics                             | 3        |
| MCM301   | Communication skills                  | 3        |
| MGT111   | Introduction to Public Administration | 3        |
| MGT503   | Principles of Management              | 3        |
| SOC101   | Introduction to Sociology             | 3        |
|          |                                       |          |

### ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree equivalent to 14-year education from a recognized University/ Institute with at least 45% marks or CGPA 2.00 out of 4.

Note:

- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- VU graduates holding 2-year Bachelor degree are allowed only to continue in their respective BS (4-year) study programs.

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To become eligible for the award of Master of Public Administration (MPA) degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Code     | Title                             | Cr. Hrs. |
|----------|-----------------------------------|----------|
| Semester | No 2                              |          |
| ECO404   | Managerial Economics              | 3        |
| MGT101   | Financial Accounting              | 3        |
| MGT301   | Principles of Marketing           | 3        |
| MGT501   | Human Resource Management         | 3        |
| MTH302   | Business Mathematics & Statistics | 3        |
| SOC401   | Cultural Anthropology             | 3        |

### Semester No 3

| MGMT611 | Human Relations          | 3 |
|---------|--------------------------|---|
| MGT502  | Organizational Behaviour | 3 |
| MGT510  | Total Quality Management | 3 |
| MGT602  | Entrepreneurship         | 3 |
| MGT603  | Strategic Management     | 3 |
| STA630  | Research Methods         | 3 |
|         |                          |   |

# ECO501 Development Economics

| HRM613 | Performance Management                | 3 |
|--------|---------------------------------------|---|
| HRM617 | Training and Development              | 3 |
| MGT522 | Introduction to Public Policy         | 3 |
| MGT621 | Administrative Law and Accountability | 3 |
| XYZ619 | Internship Report/ Final Project      | 3 |

### **PROJECT/INTERNSHIP REPORT**

Students are required to complete a Project/Internship Report of 3-credit hours in the final semester of their M.Com program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

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# I Chose VU to REALIZE MY DREAMS

VU has steered my career in the right direction. Very rarely you get the chance to live your dreams. For me it all materialized with VU's world-class education. This experience will stay with me for life.

# Sapna Hayat

Founder and President, Shaoor for Change (NGO)

### **BS ACCOUNTING & FINANCE**

The BS program in Accounting and Finance prepares students for entry-level positions in accounting and financial management. The program is designed to develop knowledge, skills and abilities that will enable them to cope successfully with the challenges of a rapidly evolving, global business and financial environment. The degree provides a strong foundation for a successful career in accounting and finance, and prepares highly motivated students for future studies.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses  |                |                     |  |
|---------------------|----------------|---------------------|--|
| Course Type         | No. of Courses | <b>Credit Hours</b> |  |
| Required Courses    | 44             | 129                 |  |
| Internship/ Project | 1              | 3                   |  |
| Total               | 45             | 132                 |  |

### SCHEME OF STUDIES

| Code         | Title                               | Cr. Hrs. |
|--------------|-------------------------------------|----------|
| Semester     | No 1                                |          |
| CS101        | Introduction to Computing           | 3        |
| ENG101       | English Comprehension               | 3        |
| MGT101       | Financial Accounting                | 3        |
| MTH302       | Business Mathematics & Statistics   | 3        |
| PAK301       | Pakistan Studies                    | 2        |
| ETH201       | Ethics (for Non-Muslims) (Elective) |          |
| ISL201       | Islamic Studies (Elective)          | 1        |
| (Option to s | elect one)                          |          |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

### Note:

- · Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 4 years / 8 Semesters** 

### AWARD OF DEGREE

To be eligible for the award of BS (Accounting & Finance) degree, candidates are required to complete at least 132 credit hours course work program by attending minimum 8-semesters with at least Cumulative Grade Point Average of 2.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ACC501   | Business Finance                       | 3        |
| ECO401   | Economics                              | 3        |
| ENG201   | Business and Technical English Writing | 3        |
| MGT211   | Introduction To Business               | 3        |
| MGT301   | Principles of Marketing                | 3        |
|          |  |          |

| Code     | Title                        | Cr. Hrs. | Code     | Title                              | Cr. Hrs. |
|----------|------------------------------|----------|----------|------------------------------------|----------|
| Semester | No 3                         |          | Semester | No 6                               |          |
| CS201    | Introduction to Programming  | 3        | ACC311   | Fundamentals of Auditing           | 3        |
| ECO402   | Microeconomics               | 3        | IT430    | E-Commerce                         | 3        |
| MCM301   | Communication skills         | 3        | MGT510   | Total Quality Management           | 3        |
| MGT201   | Financial Management         | 3        | MGT520   | International Business             | 3        |
| MGT401   | Financial Accounting II      | 3        | MGT610   | Business Ethics                    | 3        |
| STA301   | Statistics and Probability   | 3        | PSY101   | Introduction to Psychology         | 3        |
| Semester | No 4                         |          | Semester | No 7                               |          |
| ECO403   | Macroeconomics               | 3        | FIN611   | Advanced Financial Accounting      | 3        |
| MGT402   | Cost & Management Accounting | 3        | FIN621   | Financial Statement Analysis       | 3        |
| MGT411   | Money & Banking              | 3        | FIN622   | Corporate Finance                  | 3        |
| MGT502   | Organizational Behaviour     | 3        | FIN623   | Taxation Management                | 3        |
| MGT503   | Principles of Management     | 3        | MGT613   | Production / Operations Management | 3        |
|          |                              |          | STA630   | Research Methods                   | 3        |

|          |                                      |   |          |  | - |
|----------|--------------------------------------|---|----------|--|---|
| Semester | Semester No 5                        |   |          |  |   |
| ENG301   | Business Communication               | 3 | Semester | No 8                                       |   |
| MGT601   | SME Management                       | 3 | CS507    | Information Systems                        | 3 |
| MGT603   | Strategic Management                 | 3 | FIN624   | Islamic Mode of Financing                  | 3 |
| MGT604   | Management of Financial Institutions | 3 | FIN630   | Investment Analysis & Portfolio Management | 3 |
| SOC101   | Introduction to Sociology            | 3 | MGT602   | Entrepreneurship                           | 3 |
|          |                                      |   | MGT611   | Business & Labor Law                       | 3 |
|          |                                      |   | XYZ619   | Internship Report/ Final Project           | 3 |
|          |                                      |   |          |  |   |

### **PROJECT/INTERNSHIP REPORT**

Students are required to complete a Project/Internship Report of 3-credit hours in the final semester of their BS program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

### Faculty of Management

### **BS BANKING & FINANCE**

The Department of Management Sciences offers a 4-year 8 semester program which has been designed for candidates who want to adopt banking profession as career and enhance their banking skills. The program is expected to equip the students with latest banking & finance techniques being used in the banking world.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                    |    |     |  |  |  |
|---------------------------------------|----|-----|--|--|--|
| Course Type No. of Courses Credit Hou |    |     |  |  |  |
| Required Courses                      | 44 | 129 |  |  |  |
| Internship/ Project                   | 1  | 3   |  |  |  |
| Total                                 | 45 | 132 |  |  |  |

### SCHEME OF STUDIES

| Code                    | Title                               | Cr. Hrs. |
|-------------------------|-------------------------------------|----------|
| Semester                | No 1                                |          |
| CS101                   | Introduction to Computing           | 3        |
| ENG101                  | English Comprehension               | 3        |
| MGT101                  | Financial Accounting                | 3        |
| MTH302                  | Business Mathematics & Statistics   | 3        |
| PAK301 Pakistan Studies |                                     | 2        |
| ETH201                  | Ethics (for Non-Muslims) (Elective) |          |
| ISL201                  | Islamic Studies (Elective)          | 1        |
| (Option to s            | elect one)                          |          |

### **ADMISSION ELIGIBILITY CRITERIA**

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- · Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 4 years / 8 Semesters** 

### AWARD OF DEGREE

To be eligible for the award of BS (Banking & Finance) degree, candidates are required to complete at least 132 credit hours course work program by attending minimum 8semesters with at least Cumulative Grade Point Average of 2.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ECO401   | Economics                              | 3        |
| ENG201   | Business and Technical English Writing | 3        |
| MGT211   | Introduction To Business               | 3        |
| MGT301   | Principles of Marketing                | 3        |
| MGT411   | Money & Banking                        | 3        |

| Code     | Title                                | Cr. Hrs. | Code     | Title                                      | Cr. Hrs. |
|----------|--------------------------------------|----------|----------|--|----------|
| Semester | No 3                                 |          | Semester | No 6                                       |          |
| ACC501   | Business Finance                     | 3        | ACC311   | Fundamentals of Auditing                   | 3        |
| BNK601   | Banking Laws & Practices             | 3        | CS507    | Information Systems                        | 3        |
| CS201    | Introduction to Programming          | 3        | MGT510   | Total Quality Management                   | 3        |
| ECO402   | Microeconomics                       | 3        | MGT520   | International Business                     | 3        |
| MCM301   | Communication skills                 | 3        | PSY101   | Introduction to Psychology                 | 3        |
| MGT503   | Principles of Management             | 3        | STA630   | Research Methods                           | 3        |
| Semester | No 4                                 |          | Semester | No 7                                       |          |
| BNK603   | Consumer Banking                     | 3        | FIN621   | Financial Statement Analysis               | 3        |
| ECO403   | Macroeconomics                       | 3        | FIN622   | Corporate Finance                          | 3        |
| MGT201   | Financial Management                 | 3        | FIN623   | Taxation Management                        | 3        |
| MGT502   | Organizational Behaviour             | 3        | FIN625   | Credit & Risk Management                   | 3        |
| STA301   | Statistics and Probability           | 3        | MGT610   | Business Ethics                            | 3        |
|          |                                      |          | MGT613   | Production / Operations Management         | 3        |
| Semester | No 5                                 |          |          |  |          |
| ENG301   | Business Communication               | 3        | Semester | No 8                                       |          |
| IT430    | E-Commerce                           | 3        | FIN624   | Islamic Mode of Financing                  | 3        |
| MGT601   | SME Management                       | 3        | FIN630   | Investment Analysis & Portfolio Management | 3        |
| MGT604   | Management of Financial Institutions | 3        | MGT602   | Entrepreneurship                           | 3        |
| SOC101   | Introduction to Sociology            | 3        | MGT603   | Strategic Management                       | 3        |
|          |                                      |          | MGT611   | Business & Labor Law                       | 3        |
|          |                                      |          | XYZ619   | Internship Report/ Final Project           | 3        |

### **PROJECT/INTERNSHIP REPORT**

Students are required to complete a Project/ Internship Report of 3-credit hours in the final semester of their BS in Banking & Finance program. The choice of the final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation. Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

### Faculty of Management

### **BS BUSINESS ADMINISTRATION**

The BS program in Business Administration offers the aspiring candidates a progressive curriculum to have appreciable command of business fundamentals and higher level leadership skills. The specialization helps students develop their managerial, interpersonal and professional skills required to excel in the career.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses  |                        |                     |  |  |  |  |
|---------------------|------------------------|---------------------|--|--|--|--|
| Course Type         | No. of Courses         | <b>Credit Hours</b> |  |  |  |  |
| Required Courses    | 38                     | 113                 |  |  |  |  |
| Elective Courses    | 5                      | 13                  |  |  |  |  |
| Internship/ Project | 1                      | 6                   |  |  |  |  |
| Total               | 44                     | 132                 |  |  |  |  |
|                     |                        |                     |  |  |  |  |
| Specialization Cou  | Specialization Courses |                     |  |  |  |  |
| Banking *           | 4 / 4                  | 12                  |  |  |  |  |
| Finance **          | 4 / 4                  | 12                  |  |  |  |  |
| HRM ***             | 4 / 4                  | 12                  |  |  |  |  |
| Management          | 4/4                    | 12                  |  |  |  |  |
| MIS "               | 4/4                    | 12                  |  |  |  |  |
| Marketing ""        | 4 / 4                  | 12                  |  |  |  |  |
|                     |                        |                     |  |  |  |  |

### SCHEME OF STUDIES

| No 1                              |   |
|-----------------------------------|---|
|                                   |   |
| Introduction to Computing         | 3   |
| English Comprehension             | 3   |
| Financial Accounting              | 3   |
| Business Mathematics & Statistics | 3   |
| Pakistan Studies                  | 2   |
| Ethics (for Non-Muslims)          |   |
| Islamic Studies                   | 1   |
| elect one)                        |   |
|                                   | English Comprehension<br>Financial Accounting<br>Business Mathematics & Statistics<br>Pakistan Studies<br>Ethics (for Non-Muslims)<br>Islamic Studies |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

### **DURATION: 4 years / 8 Semesters**

### AWARD OF DEGREE

To be eligible for the awards of BS (Business Administration) degree, candidates are required to complete at least 132 credit hours course work program by attending minimum 8 semesters with at least Cumulative Grade Point Average of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ENG201   | Business and Technical English Writing | 3        |
| MGT211   | Introduction to Business               | 3        |
| MGT301   | Principles of Marketing                | 3        |
| MGT503   | Principles of Management               | 3        |
| STA301   | Statistics and Probability             | 3        |

| Code       | Title                                 | Cr. Hrs. | Code          | Title                                  | Cr. Hrs. |
|------------|---------------------------------------|----------|---------------|--|----------|
| Semester N | No 3                                  |          | MGT411        | Money & Banking                        | 3        |
| ECO402     | Microeconomics                        | 3        | MGT610        | Business Ethics                        | 3        |
| MCM301     | Communication skills                  | 3        | PSY101        | Introduction to Psychology             | 3        |
| MGT111     | Introduction to Public Administration | 3        |               |  |          |
| MGT401     | Financial Accounting II               | 3        | Semester No 7 |  |          |
| MGT603     | Strategic Management                  | 3        | BNK601        | Banking Laws & Practices *             | 3        |
|            |                                       |          | MGT604        | Management of Financial Institutions * | 3        |
| Semester N | No 4                                  |          | FIN625        | Credit & Risk Management *             | 3        |
| ACC501     | Business Finance                      | 3        | FIN621        | Financial Statement Analysis **        | 3        |
| ECO403     | Macroeconomics                        | 3        | FIN622        | Corporate Finance **                   | 3        |
| IT430      | E-Commerce                            | 3        | FIN623        | Taxation Management **                 | 3        |
| MGT501     | Human Resource Management             | 3        | HRM624        | Conflict Management ***                | 3        |
| MGT502     | Organizational Behaviour              | 3        | MGMT611       | Human Relations ***                    | 3        |
|            |                                       |          | MGMT623       | Leadership & Team Management ***       | 3        |
| Semester N | No 5                                  |          | MGMT623       | Leadership & Team Management#          | 3        |
| CS507      | Information Systems                   | 3        | MGMT625       | Change Management "                    | 3        |
| ENG301     | Business Communication                | 3        | MGMT628       | Organizational Development "           | 3        |
| MGT201     | Financial Management                  | 3        | CS201         | Introduction to Programming " "        | 3        |
| MGT601     | SME Management                        | 3        | CS403         | Database Management Systems " "        | 3        |
| MKT501     | Marketing Management                  | 3        | CS610         | Computer Network " "                   | 3        |
| SOC101     | Introduction to Sociology             | 3        | MKT610        | Customer Relationship Management " " " | 3        |
|            |                                       |          | MKT621        | Advertising & Promotion                | 3        |
| Semester N | No 6                                  |          | MKT624        | Brand Management " " "                 | 3        |
| ECO401     | Economics                             | 3        | MGT510        | Total Quality Management               | 3        |
| MGMT627    | Project Management                    | 3        | MGT613        | Production / Operations Management     | 3        |
| MGT402     | Cost & Management Accounting          | 3        | STA630        | Research Methods                       | 3        |

### Faculty of Management

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| Code       | Title                                    |   |
|------------|--|---|
| Semester N | No 8                                     |   |
| BNK603     | Consumer Banking *                       | 3 |
| FIN630     | Investment Analysis & Portfolio Mgmt. ** | 3 |
| HRM627     | Human Resource Development ***           | 3 |
| MGMT630    | Knowledge Management "                   | 3 |
| CS615      | Software Project Management " "          | 3 |
| MKT630     | International Marketing " " "            | 3 |
| MGT520     | International Business                   | 3 |
| MGT602     | Entrepreneurship                         | 3 |
| MGT611     | Business & Labor Law                     | 3 |
| XYZ620     | Internship Report/ Project               | 6 |

### PROJECT / INTERNSHIP REPORT

Students are required to complete a Project/ Internship Report of 6-credit hours in the final semester of the program. The choice of final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation.

Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.



### **BS COMMERCE**

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The BS in Commerce is a well-rounded program, challenging students to become critical thinkers for strong leadership in business. A focus on the "why" beyond the "how" in the curriculum helps students prepare for highly gratifying professional careers. Like business itself, management education is a living, breathing discipline. The curriculum prepares students to solve practical problems, while building basic skill sets.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |     |  |  |  |  |
|---|----|-----|--|--|--|--|
| Course Type No. of Courses Credit Hours |    |     |  |  |  |  |
| Required Courses                        | 44 | 129 |  |  |  |  |
| Internship/ Project                     | 1  | 3   |  |  |  |  |
| Total                                   | 45 | 132 |  |  |  |  |

### SCHEME OF STUDIES

| Code                    | Title                             | Cr. Hrs. |  |  |
|-------------------------|-----------------------------------|----------|--|--|
| Semester No 1           |                                   |          |  |  |
| CS101                   | Introduction to Computing         | 3        |  |  |
| ENG101                  | English Comprehension             | 3        |  |  |
| MGT101                  | Financial Accounting              | 3        |  |  |
| MTH302                  | Business Mathematics & Statistics | 3        |  |  |
| PAK301 Pakistan Studies |                                   | 2        |  |  |
| ETH201                  | ETH201 Ethics (for Non-Muslims)   |          |  |  |
| ISL201                  | 1                                 |          |  |  |
| (Option to s            |                                   |          |  |  |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- · Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- · Candidates already having 2-Year B.Com degree are allowed to join in fifth semester.

**DURATION: 4 years / 8 Semesters** 

### AWARD OF DEGREE

To be eligible for the awards of BS (Commerce), candidates are required to complete at least 132 credit hours course work program by attending minimum 8 semesters with at least CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ACC311   | Fundamentals of Auditing               | 3        |
| ACC501   | Business Finance                       | 3        |
| ECO401   | D401 Economics                         |          |
| ENG201   | Business and Technical English Writing | 3        |
| MGT211   | Introduction to Business               | 3        |
|          |  |          |

| Code                    | Title  | Cr. Hrs.               | Code          | Title                                      | Cr. Hrs. |
|-------------------------|--|------------------------|---------------|--|----------|
| Semester                | No 3   |                        | Semester I    | No 6                                       |          |
| ECO402                  | Microeconomics   | 3                      | IT430         | E-Commerce                                 | 3        |
| MCM301                  | Communication skills   | 3                      | MGT111        | Introduction to Public Administration      | 3        |
| MGT401                  | Financial Accounting II  | 3                      | MGT501        | Human Resource Management                  | 3        |
| MGT402                  | Cost & Management Accounting   | 3                      | MGT603        | Strategic Management                       | 3        |
| MGT411                  | Money & Banking  | 3                      | MGT610        | Business Ethics                            | 3        |
|                         |  |                        | PSY101        | Introduction to Psychology                 | 3        |
| Semester                | No 4   |                        |               |  |          |
| ECO403                  | Macroeconomics   | 3                      | Semester I    | No 7                                       |          |
| FIN611                  | Advanced Financial Accounting  | 3                      | CS507         | Information Systems                        | 3        |
| FIN623                  | Taxation Management  | 3                      | MGT502        | Organizational Behaviour                   | 3        |
| MGT503                  | Principles of Management   | 3                      | MGT510        | Total Quality Management                   | 3        |
| MGT611                  | Business & Labor Law   | 3                      | MGT520        | International Business                     | 3        |
|                         |  |                        | MGT613        | Production / Operations Management         | 3        |
| Semester                | No 5   |                        | STA630        | Research Methods                           | 3        |
| ENG301                  | Business Communication   | 3                      |               |  |          |
| MGT201                  | Financial Management   | 3                      | Semester I    | No 8                                       |          |
| MGT301                  | Principles of Marketing  | 3                      | FIN624        | Islamic Mode of Financing                  | 3        |
| MGT601                  | SME Management   | 3                      | FIN630        | Investment Analysis & Portfolio Management | 3        |
| SOC101                  | Introduction to Sociology  | 3                      | MGMT627       | Project Management                         | 3        |
| STA301                  | Statistics and Probability   | 3                      | MGT602        | Entrepreneurship                           | 3        |
| PRO.IF                  | ECT / INTERNSHIP REPORT  |                        | MGT604        | Management of Financial Institutions       | 3        |
| Students a              | are required to complete a Project/ Internship Repo  |                        | COM619        | Final Project-Commerce                     |          |
| student's o<br>compulso | ster of the program. The choice of final project i<br>discretion. However, consultation with the student a<br>ry. Students have to submit a detailed write-up of the | dvisor is<br>e Project | COMI619       | Internship Report-Commerce                 | 3        |
| course ar               | e required to give a presentation. Students taking In<br>e required to complete 6 to 8 weeks internship<br>on and shall get internship certificate from the co       | o in the               | (Option to se | elect one)                                 |          |

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Stu fina stu cor an COL organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

Faculty of Management

### **BS MANAGEMENT**

The Department of Management Sciences offers a 4-year 8 semester program which has been designed for candidates who want to adopt business as career and like to enhance their management skills. The program is expected to provide opportunities to the students to learn latest management techniques being used in the business world.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |     |  |  |  |
|---|----|-----|--|--|--|
| Course Type No. of Courses Credit Hours |    |     |  |  |  |
| Required Courses                        | 44 | 129 |  |  |  |
| Internship/ Project                     | 1  | 3   |  |  |  |
| Total                                   | 45 | 132 |  |  |  |

### SCHEME OF STUDIES

| Code                    | Title                             | Cr. Hrs. |  |  |
|-------------------------|-----------------------------------|----------|--|--|
| Semester No 1           |                                   |          |  |  |
| CS101                   | Introduction to Computing         | 3        |  |  |
| ENG101                  | English Comprehension             | 3        |  |  |
| MGT101                  | Financial Accounting              | 3        |  |  |
| MTH302                  | Business Mathematics & Statistics | 3        |  |  |
| PAK301 Pakistan Studies |                                   | 2        |  |  |
| ETH201                  | ETH201 Ethics (for Non-Muslims)   |          |  |  |
| ISL201                  | Islamic Studies 1                 |          |  |  |
| (Option to s            | (Option to select one)            |          |  |  |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- · Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

### **DURATION: 4 years / 8 Semesters**

### AWARD OF DEGREE

To be eligible for the awards of BS (Management), candidates are required to complete at least 132 credit hours course work program by attending minimum 8 semesters with at least CGPA of 2.00.

| Code    | Title                                  | Cr. Hrs. |
|---------|--|----------|
| Semeste | r No 2                                 |          |
| ENG201  | Business and Technical English Writing | 3        |
| MGT211  | Introduction to Business               | 3        |
| MGT301  | Principles of Marketing                | 3        |
| MGT503  | Principles of Management               | 3        |
| STA301  | A301 Statistics and Probability        |          |
|         |  |          |

| Code                     | Title   | Cr. Hrs.               | Code          | Title                              | Cr. Hrs. |
|--------------------------|---|------------------------|---------------|------------------------------------|----------|
| Semester                 | No 3  |                        | Semester N    | No 6                               |          |
| ECO402                   | Microeconomics  | 3                      | ECO401        | Economics                          | 3        |
| MCM301                   | Communication skills  | 3                      | MGMT627       | Project Management                 | 3        |
| MGT111                   | Introduction to Public Administration   | 3                      | MGT402        | Cost & Management Accounting       | 3        |
| MGT401                   | Financial Accounting II   | 3                      | MGT411        | Money & Banking                    | 3        |
| PSY101                   | Introduction to Psychology  | 3                      | MGT611        | Business & Labor Law               | 3        |
|                          |   |                        | STA630        | Research Methods                   | 3        |
| Semester                 | No 4  |                        |               |                                    |          |
| ACC501                   | Business Finance  | 3                      | Semester N    | No 7                               |          |
| ECO403                   | Macroeconomics  | 3                      | HRM624        | Conflict Management                | 3        |
| IT430                    | E-Commerce  | 3                      | MGMT625       | Change Management                  | 3        |
| MGT501                   | Human Resource Management   | 3                      | MGT510        | Total Quality Management           | 3        |
| MGT502                   | Organizational Behaviour  | 3                      | MGT602        | Entrepreneurship                   | 3        |
|                          |   |                        | MGT603        | Strategic Management               | 3        |
| Semester                 | No 5  |                        | MGT610        | Business Ethics                    | 3        |
| CS507                    | Information Systems   | 3                      |               |                                    |          |
| ENG301                   | Business Communication  | 3                      | Semester N    | No 8                               |          |
| MGT201                   | Financial Management  | 3                      | MGMT623       | Leadership & Team Management       | 3        |
| MGT601                   | SME Management  | 3                      | MGMT628       | Organizational Development         | 3        |
| MKT501                   | Marketing Management  | 3                      | MGMT630       | Knowledge Management               | 3        |
| SOC101                   | Introduction to Sociology   | 3                      | MGT520        | International Business             | 3        |
| PROJE                    | CT / INTERNSHIP REPORT  |                        | MGT613        | Production / Operations Management | 3        |
| Students a               | are required to complete a Project/ Internship Reports ster of the program. The choice of final project   |                        | MGT619        | Final Project-Management           |          |
| student's o<br>compulsor | discretion. However, consultation with the student a<br>y. Students have to submit a detailed write-up of the   | dvisor is<br>e Project | MGTI619       | Internship Report-Management       | 3        |
| course ar                | e required to give a presentation. Students taking Ir<br>e required to complete 6 to 8 weeks internshi<br>on and shall get internship certificate from the co | p in the               | (Option to se | elect one)                         |          |

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Stu final stu con and cou organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

### Faculty of Management

### **BS MARKETING**

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The Department of Management Sciences offers a 4-year 8 semester program which has been designed for candidates who want to adopt business as career and like to enhance their marketing skills. The program is expected to provide opportunities to the students to learn variety of marketing techniques being used in the challenging business world.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |     |  |  |  |
|---|----|-----|--|--|--|
| Course Type No. of Courses Credit Hours |    |     |  |  |  |
| Required Courses                        | 44 | 129 |  |  |  |
| Internship/ Project                     | 1  | 3   |  |  |  |
| Total                                   | 45 | 132 |  |  |  |

### SCHEME OF STUDIES

| Code                    | Title                             | Cr. Hrs. |  |  |
|-------------------------|-----------------------------------|----------|--|--|
| Semester No 1           |                                   |          |  |  |
| CS101                   | Introduction to Computing         | 3        |  |  |
| ENG101                  | English Comprehension             | 3        |  |  |
| MGT101                  | Financial Accounting              | 3        |  |  |
| MTH302                  | Business Mathematics & Statistics | 3        |  |  |
| PAK301 Pakistan Studies |                                   | 2        |  |  |
| ETH201                  | 1 Ethics (for Non-Muslims)        |          |  |  |
| ISL201                  | Islamic Studies                   | 1        |  |  |
| (Option to s            | (Option to select one)            |          |  |  |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- · Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

### **DURATION: 4 years / 8 Semesters**

### AWARD OF DEGREE

To be eligible for the awards of BS (Marketing), candidates are required to complete at least 132 credit hours course work program by attending minimum 8 semesters with at least CGPA of 2.00.

| Code    | Title                                  | Cr. Hrs. |
|---------|--|----------|
| Semeste | r No 2                                 |          |
| ENG201  | Business and Technical English Writing | 3        |
| MGT211  | Introduction to Business               | 3        |
| MGT301  | Principles of Marketing                | 3        |
| MGT503  | Principles of Management               | 3        |
| STA301  | A301 Statistics and Probability        |          |
|         |  |          |

| Code                  | Title   | Cr. Hrs.  | Code         | Title                              | Cr. Hrs. |
|-----------------------|---|-----------|--------------|------------------------------------|----------|
| Semester              | No 3  |           | Semester     | No 6                               |          |
| ECO402                | Microeconomics  | 3         | ECO401       | Economics                          | 3        |
| MCM301                | Communication skills  | 3         | MGT613       | Production / Operations Management | 3        |
| MGT111                | Introduction to Public Administration   | 3         | MKT530       | Consumer Behavior                  | 3        |
| MGT401                | Financial Accounting II   | 3         | MKT621       | Advertising & Promotion            | 3        |
| MGT610                | Business Ethics   | 3         | MGT402       | Cost & Management Accounting       | 3        |
|                       |   |           | STA630       | Research Methods                   | 3        |
| Semester              | No 4  |           |              |                                    |          |
| ACC501                | Business Finance  | 3         | Semester     | No 7                               |          |
| ECO403                | Macroeconomics  | 3         | MGT411       | Money & Banking                    | 3        |
| IT430                 | E-Commerce  | 3         | MKT610       | Customer Relationship Management   | 3        |
| MGT501                | Human Resource Management   | 3         | MKT611       | Marketing Research                 | 3        |
| MGT502                | Organizational Behaviour  | 3         | MGT510       | Total Quality Management           | 3        |
|                       |   |           | MKT624       | Brand Management                   | 3        |
| Semester              | No 5  |           | SOC101       | Introduction to Sociology          | 3        |
| CS507                 | Information Systems   | 3         |              |                                    |          |
| ENG301                | Business Communication  | 3         | Semester     | No 8                               |          |
| MGT201                | Financial Management  | 3         | MGT602       | Entrepreneurship                   | 3        |
| MGT601                | SME Management  | 3         | MGT603       | Strategic Management               | 3        |
| MKT501                | Marketing Management  | 3         | MKT630       | International Marketing            | 3        |
| PSY101                | Introduction to Psychology  | 3         | MGT520       | International Business             | 3        |
| PRO.IF                | ECT / INTERNSHIP REPORT   |           | MKT          | Sales Management                   | 3        |
| Students a final seme | are required to complete a Project/ Internship Reposet<br>ester of the program. The choice of final project<br>discretion. However, consultation with the student a | is at the | MKT619       | Final Project-Marketing            |          |
| compulsor             | ry. Students have to submit a detailed write-up of th<br>re required to give a presentation. Students taking Ir   | e Project | MKTI619      | Internship Report-Marketing        | 3        |
| course ar             | e required to complete 6 to 8 weeks internshi<br>on and shall get internship certificate from the co  | p in the  | (Option to s | elect one)                         |          |

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final stud con and cou orgai ation and shall get inter organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

### Faculty of Management

## **BS PUBLIC ADMINISTRATION**

The Department of Management Science offers 4-year/ 8 semesters BS program in Public Administration which has been designed for the candidates seeking their career particularly in public sector or in non-Government Organizations (NGOs). The program develops good understanding of the political, social and economic aspects of public services and prepares the students to compete for the jobs available in the public sector organizations.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |     |  |  |  |  |
|---|----|-----|--|--|--|--|
| Course Type No. of Courses Credit Hours |    |     |  |  |  |  |
| Required Courses                        | 44 | 129 |  |  |  |  |
| Internship/ Project                     | 1  | 3   |  |  |  |  |
| Total                                   | 45 | 132 |  |  |  |  |

### SCHEME OF STUDIES

| Code         | Title                             | Cr. Hrs. |  |
|--------------|-----------------------------------|----------|--|
| Semester     | No 1                              |          |  |
| CS101        | Introduction to Computing         | 3        |  |
| ENG101       | English Comprehension             | 3        |  |
| MGT101       | Financial Accounting              | 3        |  |
| MTH302       | Business Mathematics & Statistics |          |  |
| PAK301       | Pakistan Studies                  | 2        |  |
| ETH201       | Ethics (for Non-Muslims)          |          |  |
| ISL201       | Islamic Studies                   |          |  |
| (Option to s | elect one)                        |          |  |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

### Note:

- · Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- · Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 4 years / 8 Semesters** 

### AWARD OF DEGREE

To be eligible for the awards of BS (Public Administration), candidates are required to complete at least 132 credit hours course work program by attending minimum 8 semesters with at least CGPA of 2.00.

| Title                                  | Cr. Hrs.   |
|--|--|
| No 2                                   |  |
| Economics                              | 3  |
| Business and Technical English Writing | 3  |
| Introduction to Public Administration  | 3  |
| Introduction to Business               | 3  |
| Statistics and Probability             | 3  |
|  | No 2<br>Economics<br>Business and Technical English Writing<br>Introduction to Public Administration<br>Introduction to Business |

| Code                      | Title  | Cr. Hrs.                 | Code                               | Title                                   | Cr. Hrs. |
|---------------------------|--|--------------------------|------------------------------------|---|----------|
| Semester I                | No 3   |                          | Semester N                         | No 6                                    |          |
| ECO402                    | Microeconomics   | 3                        | MGMT623                            | Leadership & Team Management            | 3        |
| MCM301                    | Communication skills   | 3                        | MGMT625                            | Change Management                       | 3        |
| MGT401                    | Financial Accounting II  | 3                        | MGT402                             | Cost & Management Accounting            | 3        |
| MGT502                    | Organizational Behaviour   | 3                        | MGT411                             | Money & Banking                         | 3        |
| MGT503                    | Principles of Management   | 3                        | MGT610                             | Business Ethics                         | 3        |
|                           |  |                          | SOC101                             | Introduction to Sociology               | 3        |
| Semester I                | No 4   |                          |                                    |   |          |
| ACC501                    | Business Finance   | 3                        | Semester N                         | No 7                                    |          |
| ECO403                    | Macroeconomics   | 3                        | MGMT628 Organizational Development |   | 3        |
| IT430                     | E-Commerce   | 3                        | MGMT630                            | Knowledge Management                    | 3        |
| MGT501                    | Human Resource Management  | 3                        | MGT510                             | Total Quality Management                | 3        |
| MGT603                    | Strategic Management   | 3                        | MGT613                             | Production / Operations Management      | 3        |
|                           |  |                          | PSY101                             | Introduction to Psychology              | 3        |
| Semester I                | No 5   |                          | STA630                             | Research Methods                        | 3        |
| ENG301                    | Business Communication   | 3                        |                                    |   |          |
| MCM401                    | Fundamentals of Public Relations   | 3                        | Semester N                         | No 8                                    |          |
| MGMT611                   | Human Relations  | 3                        | HRM624                             | Conflict Management                     | 3        |
| MGT201                    | Financial Management   | 3                        | HRM627                             | Human Resource Development              | 3        |
| MGT301                    | Principles of Marketing  | 3                        | MGT520                             | International Business                  | 3        |
| MGT601                    | SME Management   | 3                        | MGT602                             | Entrepreneurship                        | 3        |
| PROJE                     | CT / INTERNSHIP REPORT   |                          | MGT611                             | Business & Labor Law                    | 3        |
| Students a                | re required to complete a Project/ Internship Rep<br>ster of the program. The choice of final project  |                          | PAD619                             | Final Project-Public Administration     |          |
| student's d<br>compulsory | iscretion. However, consultation with the student<br>y. Students have to submit a detailed write-up of the student of the studen | advisor is<br>ne Project | PADI619                            | Internship Report-Public Administration | 3        |
| course are                | e required to give a presentation. Students taking l<br>required to complete 6 to 8 weeks internsh<br>n and shall get internship certificate from the c  | ip in the                | (Option to se                      | elect one)                              |          |

### D

S organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

### Faculty of Management

### **BACHELOR OF BUSINESS & INFORMATION TECHNOLOGY (BBIT)**

Bachelor of Business & Information Technology (BBIT) is a 4- year 8 semester program. Students are offered courses in Business and Information Technology which blend into a coherent and professional degree program. The Bachelor of Business Information Technology (BBIT) is designed to provide students with expertise in the development and use of computer systems for solving business problems and making managerial decisions.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |     |  |  |  |  |
|---|----|-----|--|--|--|--|
| Course Type No. of Courses Credit Hours |    |     |  |  |  |  |
| Required Courses                        | 43 | 126 |  |  |  |  |
| Project                                 | 1  | 6   |  |  |  |  |
| Total                                   | 44 | 132 |  |  |  |  |

### SCHEME OF STUDIES

| Code         | Title                               | Cr. Hrs. |
|--------------|-------------------------------------|----------|
| Semester     | No 1                                |          |
| CS101        | Introduction to Computing           | 3        |
| ENG101       | English Comprehension               | 3        |
| SOC101       | Introduction to Sociology           | 3        |
| MTH302       | Business Mathematics and Statistics | 3        |
| PAK301       | Pakistan Studies                    | 2        |
| ETH201       | Ethics (for Non-Muslims)            |          |
| ISL201       | Islamic Studies                     | 1        |
| (Option to s | elect one)                          |          |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 4 years / 8 Semesters** 

### AWARD OF DEGREE

To be eligible for the awards of BBIT, candidates are required to complete at least 132 credit hours course work program by attending minimum 8 semesters with at least CGPA of 2.00.

| Title                                  | Cr. Hrs.  |
|--|---|
| No 2                                   |   |
| Introduction to Programming            | 3   |
| Introduction to Business               | 3   |
| Business and Technical English Writing | 3   |
| Principles of Management               | 3   |
| Introduction to Psychology             | 3   |
|  | Introduction to Programming<br>Introduction to Business<br>Business and Technical English Writing<br>Principles of Management |

| Code     | Title                       | Cr. Hrs. | Code       | Title                              | Cr. Hrs. |
|----------|-----------------------------|----------|------------|------------------------------------|----------|
| Semester | No 3                        |          | Semester I | No 6                               |          |
| CS302    | Digital Logic Design        | 3        | CS507      | Information Systems                | 3        |
| CS304    | Object Oriented Programming | 3        | CS605      | Software EngineeringII             | 3        |
| ECO402   | Microeconomics              | 3        | CS610      | Computer Network                   | 3        |
| MGT101   | Financial Accounting        | 3        | CS615      | Software Project Management        | 3        |
| PSC201   | International Relations     | 3        | MGT502     | Organizational Behaviour           | 3        |
|          |                             |          | MGT504     | Organization Theory & Design       | 3        |
| Semester | No 4                        |          |            |                                    |          |
| ACC501   | Business Finance            | 3        | Semester I | No 7                               |          |
| CS403    | Database Management Systems | 3        | CS408      | Human Computer Interaction         | 3        |
| ECO403   | Macroeconomics              | 3        | MGMT627    | Project Management                 | 3        |
| ENG301   | Business Communication      | 3        | MGT510     | Total Quality Management           | 3        |
| MGT301   | Principles of Marketing     | 3        | MGT601     | SME Management                     | 3        |
| STA301   | Statistics and Probability  | 3        | MGT602     | Entrepreneurship                   | 3        |
| Semester | No 5                        |          | Semester I | No 8                               |          |
| CS504    | Software Engineering - I    | 3        | CS614      | Data Warehousing                   | 3        |
| CS506    | Web Design and Development  | 3        | MGT610     | Business Ethics                    | 3        |
| CS601    | Data Communication          | 3        | MGT611     | Business & Labor Law               | 3        |
| IT430    | E-Commerce                  | 3        | MGT613     | Production / Operations Management | 3        |

IT620

3

3

Final Project - BBIT

### PROJECT

Students are required to complete a Project in the final semester of the program. The choice of final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation.

MGT402 Cost & Management Accounting

MGT501 Human Resource Management

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### Faculty of Management

6

### **BA BUSINESS ADMINISTRATION**

The Bachelor of Arts in Business Administration program is a regular 2-year degree program which has been designed to equip the students with adequate knowledge and skills that would help them take an early start of their professional career so that they can earn their living and support their families too.

Note: Candidates holding 2-year BA in Business Administration will only be allowed to continue seamlessly towards their respective 4-year BS Degree Program.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |    |  |  |  |  |
|---|----|----|--|--|--|--|
| Course Type No. of Courses Credit Hours |    |    |  |  |  |  |
| Required Courses                        | 21 | 60 |  |  |  |  |
| Total 21 60                             |    |    |  |  |  |  |

### SCHEME OF STUDIES

| Code         | Title                             | Cr. Hrs. |
|--------------|-----------------------------------|----------|
| Semester     | No 1                              |          |
| CS101        | Introduction to Computing         | 3        |
| ENG101       | English Comprehension             | 3        |
| MGT101       | Financial Accounting              | 3        |
| MTH302       | Business Mathematics & Statistics | 3        |
| PAK301       | Pakistan Studies                  | 2        |
| ETH201       | Ethics (for Non-Muslims)          |          |
| ISL201       | Islamic Studies                   | 1        |
| (Option to s | elect one)                        |          |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To become eligible for the award of Bachelor of Arts in Business Administration degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ENG201   | Business and Technical English Writing | 3        |
| MGT211   | Introduction to Business               | 3        |
| MGT301   | Principles of Marketing                | 3        |
| MGT503   | Principles of Management               | 3        |
| STA301   | Statistics and Probability             | 3        |
|          |  |          |

| Code     | Title                                 | Cr. Hrs. | Code     | Title                     | Cr. Hrs. |
|----------|---------------------------------------|----------|----------|---------------------------|----------|
| Semester | No 3                                  |          | Semester | No 4                      |          |
| ECO402   | Microeconomics                        | 3        | ACC501   | Business Finance          | 3        |
| MCM301   | Communication skills                  | 3        | ECO403   | Macroeconomics            | 3        |
| MGT111   | Introduction to Public Administration | 3        | IT430    | E-Commerce                | 3        |
| MGT401   | Financial Accounting II               | 3        | MGT501   | Human Resource Management | 3        |
| MGT603   | Strategic Management                  | 3        | MGT502   | Organizational Behaviour  | 3        |
|          |                                       |          |          |                           |          |



Faculty of Management

### **BACHELOR OF COMMERCE (B.Com)**

The Bachelor of Commerce (B.Com) program is a well-renowned 2-year degree program which has been designed to equip the students with adequate knowledge and skills which would help them take an early start of their professional career so that they can earn their living and support their families too.

Note: Candidates holding 2-year B.Com degree will only be allowed to continue seamlessly towards their respective 4-year BS Degree Program.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |    |  |  |  |
|---|----|----|--|--|--|
| Course Type No. of Courses Credit Hours |    |    |  |  |  |
| Required Courses                        | 21 | 60 |  |  |  |
| Total 21 60                             |    |    |  |  |  |

### SCHEME OF STUDIES

| Code         | Title                             | Cr. Hrs. |
|--------------|-----------------------------------|----------|
| Semester     | No 1                              |          |
| CS101        | Introduction to Computing         | 3        |
| ENG101       | English Comprehension             | 3        |
| MGT101       | Financial Accounting              | 3        |
| MTH302       | Business Mathematics & Statistics | 3        |
| PAK301       | Pakistan Studies                  | 2        |
| ETH201       | Ethics (for Non-Muslims)          |          |
| ISL201       | Islamic Studies                   | 1        |
| (Option to s |                                   |          |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

DURATION: 2 years / 4 Semesters

### AWARD OF DEGREE

To become eligible for the award of Bachelor of Commerce degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| 3 |
|---|
| 3 |
| 3 |
| 3 |
| 3 |
|   |

| Code     | Title                        | Cr. Hrs. | Code     | Title                         | Cr. Hrs. |
|----------|------------------------------|----------|----------|-------------------------------|----------|
| Semester | No 3                         |          | Semester | No 4                          |          |
| ECO402   | Microeconomics               | 3        | ECO403   | Macroeconomics                | 3        |
| MCM301   | Communication skills         | 3        | FIN611   | Advanced Financial Accounting | 3        |
| MGT401   | Financial Accounting II      | 3        | FIN623   | Taxation Management           | 3        |
| MGT402   | Cost & Management Accounting | 3        | MGT503   | Principles of Management      | 3        |
| MGT411   | Money & Banking              | 3        | MGT611   | Business & Labor Law          | 3        |



### Faculty of Management

# **Department of Management Sciences**

### **B.Sc. (MATHEMATICS, STATISTICS & ECONOMICS)**

The B.Sc. (Mathematics, Statistics & Economics) program is a well-renowned combination in 2-year B.Sc. degree program which has been designed to equip the students with adequate knowledge and skills which would help them take an early start of their professional career so that they can earn their living and support their families too.

Note: VU Graduates holding 2-year B.Sc. degree in Mathematics, Statistics & Economics will only be allowed to continue seamlessly towards their respective 4–year BS Degree Program.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |    |  |  |  |
|---|----|----|--|--|--|
| Course Type No. of Courses Credit Hours |    |    |  |  |  |
| Required Courses                        | 22 | 60 |  |  |  |
| Total                                   | 22 | 60 |  |  |  |

### SCHEME OF STUDIES

| Code         | Title                            | Cr. Hrs. |
|--------------|----------------------------------|----------|
| Semester     | No 1                             |          |
| CS101        | Introduction to Computing        | 3        |
| ECO406       | Mathematical Economics           | 3        |
| ENG101       | English Comprehension            | 3        |
| MTH101       | Calculus and Analytical Geometry | 3        |
| PAK301       | Pakistan Studies                 | 2        |
| ETH201       | Ethics (for Non-Muslims)         |          |
| ISL201       | Islamic Studies                  | 1        |
| (Option to s |                                  |          |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To become eligible for the award of B.Sc. (Math., Stat. & Eco.) degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ECO302   | Principles of Microeconomics           | 3        |
| ENG201   | Business and Technical English Writing | 3        |
| MGT211   | Introduction to Business               | 3        |
| MTH201   | Multivariable Calculus                 | 3        |
| STA301   | Statistics and Probability             | 3        |
|          |  |          |

| Code     | Title                        | Cr. Hrs. | Code     | Title                                 | Cr. Hrs. |
|----------|------------------------------|----------|----------|---------------------------------------|----------|
| Semester | No 3                         |          | Semester | No 4                                  |          |
| ECO303   | Principles of Macroeconomics | 3        | ECO501   | Development Economics                 | 3        |
| IT430    | E-Commerce                   | 3        | MCM301   | Communication skills                  | 3        |
| MTH303   | Mathematical Methods         | 3        | MGT503   | Principles of Management              | 3        |
| STA304   | Applied Statistics           | 3        | MTH403   | Calculus and Analytical Geometry - II | 3        |
| STA406   | Statistical Inference        | 2        | STA404   | Regression and Correlation Analysis   | 2        |
|          | War A                        |          | STA408   | Design and Analysis of Experiments    | 2        |



### Faculty of Management

**Department of Management Sciences** 

### **ASSOCIATE DEGREE PROGRAM IN ACCOUNTING & FINANCE**

The Associate Degree in Accounting & Finance has been designed for candidates having 12-years education who want to have distinctive opportunity to study the theory and practice relating to accounting and finance, develop the proficiency in the application of accounting & finance principles in the financial and corporate sectors and to be absorbed at entry level positions in the ever demanding and rewarding field of accounting and finance.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |    |  |  |  |
|---|----|----|--|--|--|
| Course Type No. of Courses Credit Hours |    |    |  |  |  |
| Required Courses                        | 22 | 63 |  |  |  |
| Internship/ Project                     | 1  | 3  |  |  |  |
| Total                                   | 23 | 66 |  |  |  |

### ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To become eligible for the award of ADP in Accounting & Finance degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ENG201   | Business and Technical English Writing | 3        |
| MGT101   | Financial Accounting                   | 3        |
| MGT211   | Introduction To Business               | 3        |
| MGT301   | Principles of Marketing                | 3        |
| MGT503   | Principles of Management               | 3        |
| PAK301   | Pakistan Studies                       | 2        |
|          |  |          |

| Code     | Title                        | Cr. Hrs. |
|----------|------------------------------|----------|
| Semester | No 3                         |          |
| ACC501   | Business Finance             | 3        |
| MCM301   | Communication skills         | 3        |
| MGT402   | Cost & Management Accounting | 3        |
| MGT501   | Human Resource Management    | 3        |
| PSY101   | Introduction to Psychology   | 3        |
| ABC      | Mercantile Law               | 3        |

### Semester No 4

| FIN623                 | Taxation Management                 | 3 |  |  |
|------------------------|-------------------------------------|---|--|--|
| MGT401                 | Financial Accounting II             | 3 |  |  |
| MGT411                 | Money & Banking                     | 3 |  |  |
| ABC                    | Computer Applications in Accounting | 3 |  |  |
| FIN619                 | Final Project-Finance               |   |  |  |
| FINI619                | Internship Report-Finance           | 3 |  |  |
| (Option to select one) |                                     |   |  |  |

### **PROJECT / INTERNSHIP REPORT**

Students are required to complete a Project/Internship Report in the final semester of the program. The choice of final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation.

Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.

SCHEME OF STUDIES

| Code         | Title                             | Cr. Hrs. |
|--------------|-----------------------------------|----------|
| Semester     | No 1                              |          |
| CS101        | Introduction to Computing         | 3        |
| ECO401       | Economics                         | 3        |
| ENG101       | English Comprehension             | 3        |
| MTH302       | Business Mathematics & Statistics | 3        |
| SOC101       | Introduction to Sociology         | 3        |
| ETH201       | Ethics (for Non-Muslims)          |          |
| ISL201       | Islamic Studies                   | 1        |
| (Option to s | select one)                       |          |

### Faculty of Management



### **ASSOCIATE DEGREE PROGRAM IN HRM**

The Associate Degree Program in Human Resource Management has been designed for candidates having 12-years education who wish to develop understanding of basic management and business principles; want a strong understanding of human resource management and its functions to be performed at entry level position in the department of HR; and gain knowledge and practical skillset necessary to work in organizational settings.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses  |                |              |  |  |
|---------------------|----------------|--------------|--|--|
| Course Type         | No. of Courses | Credit Hours |  |  |
| Required Courses    | 22             | 63           |  |  |
| Internship/ Project | 1              | 3            |  |  |
| Total               | 23             | 66           |  |  |

SCHEME OF STUDIES

Title

Code

### **ADMISSION ELIGIBILITY CRITERIA**

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad, (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To become eligible for the award of ADP in Human Resource Management degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

Technical English Writing

Cr. Hrs.

3

3

3

3

3

2

| Code         | litie                             | Cr. Hrs. |          |                                |
|--------------|-----------------------------------|----------|----------|--------------------------------|
| Semester     | No 1                              |          | Code     | Title                          |
| CS101        | Introduction to Computing         | 3        | Semester | No 2                           |
| ECO401       | Economics                         | 3        | ENG201   | Business and Technical English |
| ENG101       | English Comprehension             | 3        | MGT101   | Financial Accounting           |
| MTH302       | Business Mathematics & Statistics | 3        | MGT211   | Introduction to Business       |
| SOC101       | Introduction to Sociology         | 3        | MGT501   | Human Resource Management      |
| ETH201       | Ethics (for Non-Muslims)          |          | MGT503   | Principles of Management       |
| ISL201       | Islamic Studies                   | 1        | PAK301   | Pakistan Studies               |
| (Option to s | select one)                       |          |          |                                |
|              |                                   |          |          |                                |

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| Code     | Title                      | Cr. Hrs. | Code         | Title                                 | Cr. Hrs. |
|----------|----------------------------|----------|--------------|---------------------------------------|----------|
| Semester | No 3                       |          | Semester     | No 4                                  |          |
| ACC501   | Business Finance           | 3        | IT430        | E-Commerce                            | 3        |
| MCM301   | Communication skills       | 3        | HRM617       | Training and Development              | 3        |
| MGT301   | Principles of Marketing    | 3        | ABC          | Labour Laws                           | 3        |
| MGT502   | Organizational Behaviour   | 3        | ABC          | Performance & Compensation Management | 3        |
| PSY101   | Introduction to Psychology | 3        | HRM619       | Final Project-HRM                     |          |
| ABC      | Recruitment & Selection    | 3        | HRMI619      | Internship Report-HRM                 | 3        |
|          |                            |          | (Option to s | elect one)                            |          |

### **PROJECT / INTERNSHIP REPORT**

Students are required to complete a Project/Internship Report in the final semester of the program. The choice of final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation.

Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.



### Faculty of Management

### ASSOCIATE DEGREE PROGRAM IN ISLAMIC BANKING

The Associate Degree Program in Islamic Banking has been designed for candidates having 12-years education who want to be resourceful in the principles, concepts and practices of Islamic banking; who want to be conversant with essential aspects of the operations of Islamic banking which is the fast growing parallel banking system in Pakistan and worldwide; and obtain a well-integrated knowledge of Islamic banking and Islamic finance which is essential for the entry level job in Islamic banking.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses  |                |                     |  |  |
|---------------------|----------------|---------------------|--|--|
| Course Type         | No. of Courses | <b>Credit Hours</b> |  |  |
| Required Courses    | 22             | 63                  |  |  |
| Internship/ Project | 1              | 3                   |  |  |
| Total               | 23             | 66                  |  |  |

### **ADMISSION ELIGIBILITY CRITERIA**

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad, (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To become eligible for the award of ADP in Islamic Banking degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Code       | Title                             | Cr. Hrs. |
|------------|-----------------------------------|----------|
| Semeste    | r No 1                            |          |
| CS101      | Introduction to Computing         | 3        |
| ECO401     | Economics                         | 3        |
| ENG101     | English Comprehension             | 3        |
| MTH302     | Business Mathematics & Statistics |          |
| SOC101     | 01 Introduction to Sociology      |          |
| ETH201     | Ethics (for Non-Muslims)          |          |
| ISL201     | Islamic Studies                   | 1        |
| (Option to | select one)                       |          |

SCHEME OF STUDIES

| Code                           | Title                                  | Cr. Hrs. |
|--------------------------------|--|----------|
| Semester                       | No 2                                   |          |
| ENG201                         | Business and Technical English Writing | 3        |
| MGT101                         | Financial Accounting                   | 3        |
| MGT211                         | Introduction to Business               | 3        |
| MGT301 Principles of Marketing |  | 3        |
| MGT503                         | Principles of Management               | 3        |
| PAK301 Pakistan Studies        |  | 2        |

| Code     | Title                      | Cr. Hrs. | Code         | Title                            | Cr. Hrs. |
|----------|----------------------------|----------|--------------|----------------------------------|----------|
| Semester | No 3                       |          | Semester     | No 4                             |          |
| ACC501   | Business Finance           | 3        | MGT411       | Money & Banking                  | 3        |
| FIN624   | Islamic Mode of Financing  | 3        | ABC          | Islamic Banking Practices        | 3        |
| MCM301   | Communication skills       | 3        | ABC          | Financial Jurisprudence in Islam | 3        |
| MGT501   | Human Resource Management  | 3        | ABC          | Islamic Ethics in Business       | 3        |
| PSY101   | Introduction to Psychology | 3        | BNKI619      | Internship Report-Banking        |          |
| ABC      | Economic Ideology in Islam | 3        | BNK619       | Final Project-Banking            | 3        |
|          |                            |          | (Option to s | select one)                      |          |

### **PROJECT / INTERNSHIP REPORT**

Students are required to complete a Project/Internship Report in the final semester of the program. The choice of final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation.

Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.



### Faculty of Management

### **ASSOCIATE DEGREE PROGRAM IN OPERATIONS MANAGEMENT**

The Department of Management Science has designed an associate degree in operations management which provides the candidates a distinctive opportunity to develop their skills to face the challenges of contemporary industries and markets and take an early start in the professional career. It enables them to deal with routine tasks preformed by production or operation departments and evaluate the operations for continuos improvement and quality enhancement.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses  |                |              |  |  |
|---------------------|----------------|--------------|--|--|
| Course Type         | No. of Courses | Credit Hours |  |  |
| Required Courses    | 22             | 63           |  |  |
| Internship/ Project | 1              | 3            |  |  |
| Total               | 23             | 66           |  |  |

SCHEME OF STUDIES

Code

Semester CS101

ECO401 ENG101

MTH302 SOC101 ETH201 ISL201 (Option to s

# ADMISSION ELIGIBILITY CRITERIA

Intermediate (equivalent to 12 years of education) with at least 45% marks.

Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad, (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To become eligible for the award of ADP in Operations Management degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Title                             | Cr. Hrs. | V        | with |
|-----------------------------------|----------|----------|------|
| No 1                              |          | Code     | Tit  |
| Introduction to Computing         | 3        | Semester | No : |
| Economics                         | 3        | ENG201   | Вι   |
| English Comprehension             | 3        | MGT101   | Fi   |
| Business Mathematics & Statistics | 3        | MGT211   | In   |
| Introduction to Sociology         | 3        | MGT301   | Pr   |
| Ethics (for Non-Muslims)          |          | MGT503   | Pr   |
| Islamic Studies                   | 1        | PAK301   | Pa   |
| select one)                       |          |          |      |

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ENG201   | Business and Technical English Writing | 3        |
| MGT101   | Financial Accounting                   | 3        |
| MGT211   | Introduction to Business               | 3        |
| MGT301   | GT301 Principles of Marketing          |          |
| MGT503   | Principles of Management               | 3        |
| PAK301   | Pakistan Studies                       | 2        |

| Code     | Title                             | Cr. Hrs. | Code          | Title                        | Cr. Hrs. |
|----------|-----------------------------------|----------|---------------|------------------------------|----------|
| Semester | No 3                              |          | Semester N    | No 4                         |          |
| ACC501   | Business Finance                  | 3        | MGMT627       | Project Management           | 3        |
| STA301   | Statistics and Probability        | 3        | IT430         | E-Commerce                   | 3        |
| MCM301   | Communication skills              | 3        | MGT510        | Total Quality Management     | 3        |
| MGT501   | Human Resource Management         | 3        | MGT614        | Supply Chain Management      | 3        |
| PSY101   | Introduction to Psychology        | 3        | MGTI619       | Internship Report-Management |          |
| MGT613   | Production/ Operations Management | 3        | MGT619        | Final Project-Management     | 3        |
|          |                                   |          | (Option to se | elect one)                   |          |

### **PROJECT / INTERNSHIP REPORT**

Students are required to complete a Project/Internship Report in the final semester of the program. The choice of final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation.

Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.



### Faculty of Management

### ASSOCIATE DEGREE PROGRAM IN SALES AND MARKETING

The ADP in Sales and Marketing has been designed to develop knowledge of working in a sales and marketing business in the local & global marketplace; demonstrate an understanding of the basics of marketing and supply chain management; develop the skills to understand and implement business plans; enhance the skills necessary to formulate and plan selling the products; and understand the promotion and delivery of products or services as a key element in response to customer requirements. The graduates of the proposed program are expected to be self-employed or employed by public enterprises and private corporations at entry level jobs in marketing, procurement and sales/ distribution departments.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses  |                |                     |  |  |
|---------------------|----------------|---------------------|--|--|
| Course Type         | No. of Courses | <b>Credit Hours</b> |  |  |
| Required Courses    | 22             | 63                  |  |  |
| Internship/ Project | 1              | 3                   |  |  |
| Total               | 23             | 66                  |  |  |

### SCHEME OF STUDIES

| Code         | Title                             | Cr. Hrs. |
|--------------|-----------------------------------|----------|
| Semester     | No 1                              |          |
| CS101        | Introduction to Computing         | 3        |
| ECO401       | Economics                         | 3        |
| ENG101       | English Comprehension             | 3        |
| MTH302       | Business Mathematics & Statistics | 3        |
| SOC101       | Introduction to Sociology         | 3        |
| ETH201       | Ethics (for Non-Muslims)          |          |
| ISL201       | Islamic Studies                   | 1        |
| (Option to s | elect one)                        |          |

### **ADMISSION ELIGIBILITY CRITERIA**

Intermediate (equivalent to 12 years of education) with at least 45% marks.

### Note:

- · Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 2 years / 4 Semesters** 

### AWARD OF DEGREE

To become eligible for the award of ADP in Sales and Marketing degree, students are required to gualify prescribed courses with a minimum CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ENG201   | Business and Technical English Writing | 3        |
| MGT101   | Financial Accounting                   | 3        |
| MGT211   | Introduction To Business               | 3        |
| MGT301   | Principles of Marketing                | 3        |
| MGT503   | Principles of Management               | 3        |
| PAK301   | Pakistan Studies                       | 2        |
|          |  |          |

| Code     | Title                            | Cr. Hrs. | Code                   | Title                       | Cr. Hrs. |
|----------|----------------------------------|----------|------------------------|-----------------------------|----------|
| Semester | No 3                             |          | Semester               | No 4                        |          |
| ACC501   | Business Finance                 | 3        | IT430                  | E-Commerce                  | 3        |
| MCM301   | Communication skills             | 3        | MKT530                 | Consumer Behaviour          | 3        |
| MCM401   | Fundamentals of Public Relations | 3        | MKT621                 | Advertising and Promotion   | 3        |
| MGT501   | Human Resource Management        | 3        | MKT                    | Export Marketing            | 3        |
| PSY101   | Introduction to Psychology       | 3        | MKT619                 | Final Project-Marketing     |          |
| MKT      | Sales Management                 | 3        | MKTI619                | Internship Report-Marketing | 3        |
|          |                                  |          | (Option to select one) |                             |          |

### **PROJECT / INTERNSHIP REPORT**

Students are required to complete a Project/Internship Report in the final semester of the program. The choice of final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation.

Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.



Faculty of Management

### ASSOCIATE DEGREE PROGRAM IN SUPPLY CHAIN MANAGEMENT

The ADP in Supply Chain Management has been designed for candidates having 12-years education who want to be capable of dealing with routine tasks of supply chain including procurement, distribution, warehousing and logistics; understand how to implement supply chain strategies; to learn to evaluate supply chain practices for continuous improvement and quality enhancement; and gain in-depth knowledge related to supply chain, align themselves with the latest developments and in creating capacity building by applying their knowledge practically. The graduates of the proposed program are expected to be employed by public sector enterprises and private corporations at entry level jobs in procurement, warehouse/ logistics, sales/ distribution, quality control and operations departments.

### ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses  |                |                     |  |  |
|---------------------|----------------|---------------------|--|--|
| Course Type         | No. of Courses | <b>Credit Hours</b> |  |  |
| Required Courses    | 22             | 63                  |  |  |
| Internship/ Project | 1              | 3                   |  |  |
| Total               | 23             | 66                  |  |  |

### SCHEME OF STUDIES

| Code         | Title                             | Cr. Hrs. |
|--------------|-----------------------------------|----------|
| Semester     | No 1                              |          |
| CS101        | Introduction to Computing         | 3        |
| ECO401       | Economics                         | 3        |
| ENG101       | English Comprehension             | 3        |
| MTH302       | Business Mathematics & Statistics | 3        |
| SOC101       | Introduction to Sociology         | 3        |
| ETH201       | Ethics (for Non-Muslims)          |          |
| ISL201       | Islamic Studies                   | 1        |
| (Option to s | elect one)                        |          |

### **ADMISSION ELIGIBILITY CRITERIA**

Intermediate (equivalent to 12 years of education) with at least 45% marks.

### Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC). Islamabad. (http://www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

### **DURATION: 2 years / 4 Semesters**

### AWARD OF DEGREE

To become eligible for the award of ADP in Sales and Marketing degree, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 2                                   |          |
| ENG201   | Business and Technical English Writing | 3        |
| MGT101   | Financial Accounting                   | 3        |
| MGT211   | Introduction to Business               | 3        |
| NGT301   | Principles of Marketing                | 3        |
| MGT503   | Principles of Management               | 3        |
| PAK301   | Pakistan Studies                       | 2        |
|          |  |          |

| Code       | Title                      | Cr. Hrs. | Code                   | Title                                   | Cr. Hrs. |
|------------|----------------------------|----------|------------------------|---|----------|
| Semester I | No 3                       |          | Semester               | No 4                                    |          |
| ACC501     | Business Finance           | 3        | IT430                  | E-Commerce                              | 3        |
| MCM301     | Communication skills       | 3        | MGT613                 | Production / Operations Management      | 3        |
| MGMT614    | Supply Chain Management    | 3        | MTH601                 | Operations Research                     | 3        |
| MGT501     | Human Resource Management  | 3        | ABC—                   | Transportation and Logistics Management | 3        |
| PSY101     | Introduction to Psychology | 3        | MGT619                 | Final Project-Management                | _        |
| STA301     | Statistics and Probability | 3        | MGTI619                | Internship Report-Management            | 3        |
|            |                            |          | (Option to select one) |   |          |

### **PROJECT / INTERNSHIP REPORT**

Students are required to complete a Project/Internship Report in the final semester of the program. The choice of final project is at the student's discretion. However, consultation with the student advisor is compulsory. Students have to submit a detailed write-up of the Project and may be required to give a presentation.

Students taking Internship course are required to complete 6 to 8 weeks internship in the organization and shall get internship certificate from the concerned organization. The students who are already in service shall be exempted from Internship but required to submit the Project.



Faculty of Management

# Customers

Warehouse

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# **POST GRADUATE DIPLOMA IN ACCOUNTING**

Post Graduate Diploma (PGD) in Accounting has been designed to equip the students with comprehensive book-keeping knowledge which will help in-service students strengthen their concepts and improve their professional competencies. It will also suit candidates who intend to start their professional career with strong book-keeping exposure.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |    |    |
|---|----|----|
| Course Type No. of Courses Credit Hours |    |    |
| Required Courses                        | 12 | 36 |
| Total                                   | 12 | 36 |

# ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4

However, candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 1 year / 2 Semesters** 

# AWARD OF DIPLOMA

To become eligible for the award of PGD in Accounting, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

# SCHEME OF STUDIES

| Code     | Title                             | Cr. Hrs. | Code     | Title |
|----------|-----------------------------------|----------|----------|-------|
| Semester | No 1                              |          | Semester | No 2  |
| ACC311   | Fundamentals of Auditing          | 3        | ECO401   | Econ  |
| ENG301   | Business Communication            | 3        | FIN611   | Adva  |
| MGT101   | Financial Accounting              | 3        | FIN621   | Finar |
| MGT211   | Introduction To Business          | 3        | IT430    | E-Co  |
| MGT402   | Cost & Management Accounting      | 3        | MGT401   | Finar |
| MTH302   | Business Mathematics & Statistics | 3        | MGT411   | Mone  |
|          |                                   |          |          |       |

| Code     | Title                          | Cr. Hrs. |
|----------|--------------------------------|----------|
| Semester | No 2                           |          |
| ECO401   | Economics                      | 3        |
| FIN611   | Advanced Financial Accounting  | 3        |
| FIN621   | Financial Statement Analysis 3 |          |
| T430     | E-Commerce 3                   |          |
| MGT401   | Financial Accounting II 3      |          |
| MGT411   | 1 Money & Banking              |          |
|          |                                |          |

# **POST GRADUATE DIPLOMA IN ACCOUNTING & FINANCE**

Post Graduate Diploma (PGD) in Accounting & Finance has been designed to cater the ever-increasing demand in the industry for accounting and finance professionals who are more conceptually equipped and academically sound to take the challenges of day to day organizational tasks. Today's finance world demands more competitive, specific, innovative and tailor-made skills for survival in a globalized business environment. The diploma will also provide a way-in to those having no prior knowledge but intend to join a higher study program.

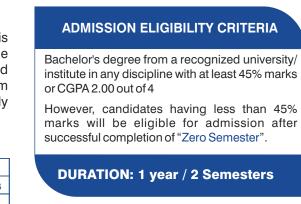
# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses |                |                     |
|--------------------|----------------|---------------------|
| Course Type        | No. of Courses | <b>Credit Hours</b> |
| Required Courses   | 8              | 24                  |
| Total              | 8              | 24                  |

# SCHEME OF STUDIES

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 1                                   |          |
| CS101    | Introduction to Computing              | 3        |
| ENG201   | Business and Technical English Writing | 3        |
| MGT101   | Financial Accounting                   | 3        |
| MGT211   | Introduction to Business               | 3        |



# AWARD OF DIPLOMA

To become eligible for the award of PGD in Accounting & Finance, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| ode     | Title                        |   |
|---------|------------------------------|---|
| emester | No 2                         |   |
| CC501   | Business Finance             | 3 |
| IGT201  | Financial Management         | 3 |
| IGT401  | Financial Accounting II      | 3 |
| IGT402  | Cost & Management Accounting | 3 |
|         |                              |   |

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# **POST GRADUATE DIPLOMA IN BANKING & FINANCE**

Post Graduate Diploma in Banking & Finance has been designed to provide insight of banking and finance knowledge to those who are either already serving the industry or intend to join in rapidly expanding banking sector. Furthermore, the program will provide relevant knowledge to those who do not have any prior knowledge of the field but willing to enter the disciplines of banking and finance in order to continue their higher studies in the future.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                      |   |    |
|---|---|----|
| Course Type No. of Courses Credit Hours |   |    |
| Required Courses                        | 8 | 24 |
| Total                                   | 8 | 24 |

# ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4

However, candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 1 year / 2 Semesters** 

# AWARD OF DIPLOMA

To become eligible for the award of PGD in Banking & Finance, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

# SCHEME OF STUDIES

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 1                                   |          |
| CS101    | Introduction to Computing              | 3        |
| ECO401   | Economics                              | 3        |
| ENG201   | Business and Technical English Writing | 3        |
| MGT101   | Financial Accounting                   | 3        |

| Code    | Title                        | Cr. Hrs. |
|---------|------------------------------|----------|
| Semeste | r No 2                       |          |
| BNK601  | Banking Laws & Practices     | 3        |
| FIN621  | Financial Statement Analysis |          |
| MGT201  | Financial Management         | 3        |
| MGT411  | Money & Banking 3            |          |

# POST GRADUATE DIPLOMA IN BUSINESS ADMINISTRATION

Post Graduate Diploma in Business Administration equips the students and in-service employees to meet the challenges and avail the opportunities of the corporate world. The main focus of the program is to provide management-cum-computer education to in-service employees and interested students. It strengthens the management and leadership capabilities of students. The program provides balanced coverage of the various aspects of Business and Management that will also allow the diploma holders to meet the challenge of today's technology. Candidates after obtaining diploma can seek admission in Master Degree Programs.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses |                |                     |
|--------------------|----------------|---------------------|
| Course Type        | No. of Courses | <b>Credit Hours</b> |
| Required Courses   | 12             | 36                  |
| Total              | 12             | 36                  |

# SCHEME OF STUDIES

| Code     | Title                             | Cr. Hrs. |
|----------|-----------------------------------|----------|
| Semester | No 1                              |          |
| CS101    | Introduction to Computing         | 3        |
| MGT101   | Financial Accounting              | 3        |
| MGT301   | Principles of Marketing           |          |
| MGT501   | Human Resource Management         |          |
| MGT503   | Principles of Management          | 3        |
| MTH302   | Business Mathematics & Statistics | 3        |

| ADMISSION E       | LIGIBILITY CRITERIA  |
|-------------------|--|
|                   | rom a recognized university/<br>pline with at least 45% marks<br>4         |
| marks will be eli | tes having less than 45% gible for admission after ion of "Zero Semester". |
| DURATION: 1       | year / 2 Semesters   |

# AWARD OF DIPLOMA

To become eligible for the award of PGD in Business Administration, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| ode     | Title                  | Cr. Hrs. |
|---------|------------------------|----------|
| emester | No 2                   |          |
| S507    | Information Systems    | 3        |
| CO401   | Economics              | 3        |
| NG301   | Business Communication | 3        |
| 430     | E-Commerce             | 3        |
| IGT411  | Money & Banking        | 3        |
| IKT501  | Marketing Management   | 3        |
|         |                        |          |

# POST GRADUATE DIPLOMA IN ENTREPRENEURSHIP & SME MANAGEMENT

Post Graduate Diploma in Entrepreneurship & SME Management has been designed with an objective to give opportunity to entrepreneurs, small business owners, general practitioners and students to understand the foundation of entrepreneurship and equip themselves with necessary skills required to manage business ventures. The program can also be of immense value for those middle managers who are interested in launching and managing new ventures from the platform of large scale corporations. Students interested in seeking higher education in entrepreneurship and SME management or launching own ventures can also be benefited from the program.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                     |   |    |  |  |
|--|---|----|--|--|
| Course Type No. of Courses Credit Hour |   |    |  |  |
| Required Courses                       | 8 | 24 |  |  |
| Total                                  | 8 | 24 |  |  |

# ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4

However, candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

**DURATION: 1 year / 2 Semesters** 

# AWARD OF DIPLOMA

To become eligible for the award of PGD in Entrepreneurship & SME Management, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Code     | Title Cr. I            |   |
|----------|------------------------|---|
| Semester | No 2                   |   |
| MGT101   | Financial Accounting   | 3 |
| MGT520   | International Business | 3 |
| MGT601   | SME Management         | 3 |
| MGT602   | Entrepreneurship       | 3 |

# **POST GRADUATE DIPLOMA IN FINANCE**

Post Graduate Diploma in Finance has been designed to produce/ develop professionals having relevant subject knowledge and ability to fulfill the needs of career positions in the Finance Department of private as well as public sector organizations. The program is equally good for serving professional willing to update their existing knowledge in short period of time and students willing to develop their career in the financial services sector. Furthermore, the program will provide the students a solid foundation while pursuing their higher degree in the field of Finance.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses |                |                     |  |  |
|--------------------|----------------|---------------------|--|--|
| Course Type        | No. of Courses | <b>Credit Hours</b> |  |  |
| Required Courses   | 8              | 24                  |  |  |
| Total              | 8              | 24                  |  |  |

# SCHEME OF STUDIES

| Title                                  | Cr. Hrs.  | Code  | Title   | Cr. Hrs.   |
|--|---|---|---|--|
| No 1                                   |   | Semester  | No 2  |  |
| Introduction to Computing              | 3   | ACC501  | Business Finance  | 3  |
| Economics                              | 3   | FIN621  | Financial Statement Analysis  | 3  |
| Business and Technical English Writing | 3   | FIN624  | Islamic Mode of Financing   | 3  |
| Introduction to Business               | 3   | MGT411  | Money & Banking   | 3  |
|  | No 1 Introduction to Computing Economics Business and Technical English Writing | No 1       Introduction to Computing     3       Economics     3       Business and Technical English Writing     3 | No 1SemesterIntroduction to Computing3Economics3Business and Technical English Writing3FIN624 | No 1       Semester No 2         Introduction to Computing       3       ACC501       Business Finance         Economics       3       FIN621       Financial Statement Analysis         Business and Technical English Writing       3       FIN624       Islamic Mode of Financing |

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# SCHEME OF STUDIES

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 1                                   |          |
| CS101    | Introduction to Computing              | 3        |
| ECO401   | Economics                              | 3        |
| ENG201   | Business and Technical English Writing | 3        |
| MGT503   | Principles of Management               | 3        |
|          |  |          |

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# ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4

However, candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".



# **DURATION: 1 year / 2 Semesters**

# AWARD OF DIPLOMA

To become eligible for the award of PGD in Finance, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

# POST GRADUATE DIPLOMA IN HUMAN RESOURCE MANAGEMENT

Post Graduate Diploma in Human Resource Management has been designed with a core purpose of developing HR skills in practitioners to equip them with required competence in the field of Human Resource Management. The program is equally helpful for all business graduates, non-business graduates, doctors, engineers and other specialists serving in HR departments or those intend to pursue their higher studies in the field of HRM but have no previous knowledge.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses                    |   |    |  |  |
|---------------------------------------|---|----|--|--|
| Course Type No. of Courses Credit Hou |   |    |  |  |
| Required Courses                      | 8 | 24 |  |  |
| Total                                 | 8 | 24 |  |  |

# ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4

However, candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

# **DURATION: 1 year / 2 Semesters**

# AWARD OF DIPLOMA

To become eligible for the award of PGD in Human Resource Management, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Title                                  | Cr. Hrs.   |
|--|--|
| No 1                                   |  |
| Introduction to Computing              | 3  |
| Business and Technical English Writing | 3  |
| Human Resource Management              | 3  |
| Organizational Psychology              | 3  |
|  | Introduction to Computing<br>Business and Technical English Writing<br>Human Resource Management |

| Code       | Title                      | Cr. Hrs. |
|------------|----------------------------|----------|
| Semester N | No 2                       |          |
| HRM624     | Conflict Management        | 3        |
| HRM627     | Human Resource Development | 3        |
| MGMT611    | Human Relations            | 3        |
| MGMT622    | Management Skills          | 3        |

# POST GRADUATE DIPLOMA IN MARKETING MANAGEMENT

Post Graduate Diploma in Marketing Management has been designed with special objectives to provide opportunity to practitioners, theorists and students to enhance their understanding on marketing management. Practitioners with or without business degree can have specialized knowledge of marketing required in formulating strategies and making day to day decisions in the field. Theorists can get the necessary background knowledge required for theory development in the discipline of marketing. Students interested in having future in the field of marketing can also take this diploma as a solid foundation for both practical advancement as well as advancement in higher education.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Gradeo Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses |                |                     |  |  |
|--------------------|----------------|---------------------|--|--|
| Course Type        | No. of Courses | <b>Credit Hours</b> |  |  |
| Required Courses   | 8              | 24                  |  |  |
| Total              | 8              | 24                  |  |  |

# SCHEME OF STUDIES

| Code     | Title                                  | Cr. Hrs. | Code     | Title                            | Cr. Hrs. |
|----------|--|----------|----------|----------------------------------|----------|
| Semester | No 1                                   |          | Semester | No 2                             |          |
| CS101    | Introduction to Computing              | 3        | MCM401   | Fundamentals of Public Relations | 3        |
| ECO401   | Economics                              | 3        | MGT503   | Principles of Management         | 3        |
| ENG201   | Business and Technical English Writing | 3        | MKT621   | Advertising & Promotion          | 3        |
| MGT301   | Principles of Marketing                | 3        | MKT624   | Brand Management                 | 3        |

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# ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4

However, candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".



# DURATION: 1 year / 2 Semesters

# AWARD OF DIPLOMA

To become eligible for the award of PGD in Marketing Management, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

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# POST GRADUATE DIPLOMA IN PUBLIC ADMINISTRATION

Post Graduate Diploma in Public Administration has been designed with a core purpose of developing publicpersonnel to meet the contemporary challenges with a true sense of public service. The program is especially helpful for all business graduates, non-business graduates, doctors, engineers and other specialists serving in public sector organizations or those intend to pursue their higher studies in the field of Public Administration but have no previous knowledge. Students seeking their career in public organizations as well as NGOs can also be the wonderful beneficiaries of this program.

С

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses |                |                     |  |  |  |
|--------------------|----------------|---------------------|--|--|--|
| Course Type        | No. of Courses | <b>Credit Hours</b> |  |  |  |
| Required Courses   | 8              | 24                  |  |  |  |
| Total              | 8              | 24                  |  |  |  |

# SCHEME OF STUDIES

| Code     | Title                                  | Cr. Hrs. |
|----------|--|----------|
| Semester | No 1                                   |          |
| CS101    | Introduction to Computing              | 3        |
| ENG201   | Business and Technical English Writing | 3        |
| MGT111   | Introduction to Public Administration  | 3        |
| MGT503   | Principles of Management               | 3        |

# ADMISSION ELIGIBILITY CRITERIA

Bachelor's degree from a recognized university/ institute in any discipline with at least 45% marks or CGPA 2.00 out of 4

However, candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

# **DURATION: 1 year / 2 Semesters**

# AWARD OF DIPLOMA

To become eligible for the award of PGD in Human Resource Management, students are required to qualify prescribed courses with a minimum CGPA of 2.00.

| Code    | Title                    | Cr. Hrs. |
|---------|--------------------------|----------|
| emester | No 2                     |          |
| CO401   | Economics                | 3        |
| IGT101  | Financial Accounting     | 3        |
| IGT502  | Organizational Behaviour | 3        |
| OC401   | Cultural Anthropology    | 3        |
|         |                          |          |

# DEFICIENCY SEMESTER(s) FOR ADMISSION TOWARDS MSBA/ MBA (EQUIVALENT TO MS)

The candidates with 16-year non-business education [BE, MBBS, MA, M.Sc., and other equivalent qualifications from a recognized university/institution] will be required to qualify at least 36-credit hours of deficiency business courses before they become eligible for admission towards MBA (equivalent to MS)/MS in Business Administration program.

Note: Upon successful completion of Deficiency Semester(s), students will be eligible to apply for admission towards MS level program.

# ASSESSMENT OF STUDY PROGRESS:

The evaluation of students' study progress for deficiency courses is based on continuous assessment throughou the semester by giving assignments, on-line quizzes Graded Discussion Boards, mid-term and final-tern examinations. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

# COURSE EXEMPTION

The number of courses required to be studied by a candidate are determined by admission committee or case to case basis. Already qualified courses are exempted from the scheme of studies given below. In such cases, the students can complete their remaining courses in minimum 18 weeks/ one semester.

# SCHEME OF STUDIES

| Code     | Title                             | Cr. Hrs. | Code     | Title                     | Cr. Hrs. |
|----------|-----------------------------------|----------|----------|---------------------------|----------|
| Semester | No 1                              |          | Semester | No 2                      |          |
| CS101    | Introduction to Computing         | 3        | ACC501   | Business Finance          | 3        |
| ECO401   | Economics                         | 3        | MGT211   | Introduction To Business  | 3        |
| MGT101   | Financial Accounting              | 3        | MGT401   | Financial Accounting II   | 3        |
| MGT301   | Principles of Marketing           | 3        | MGT501   | Human Resource Management | 3        |
| MGT503   | Principles of Management          | 3        | MKT501   | Marketing Management      | 3        |
| MTH302   | Business Mathematics & Statistics | 3        | STA630   | Research Methods          | 3        |
|          |                                   |          |          |                           |          |

|                                 | ADMISSION ELIGIBILITY CRITERIA  |
|---------------------------------|---|
| cy<br>ut<br>s,<br>m<br>re<br>Iy | For candidates having 16-year non-business<br>education [i.e., BE, MBBS, MA, M.Sc., and other<br>equivalent qualifications from a recognized<br>university/institution] will be required to qualify<br>(minimum two semesters) at least 36 credit<br>hours of Deficiency Business Courses to<br>become eligible for admission towards<br>MBA(Equ. to MS) / MS in Business<br>Administration programs. |
| a                               | DURATION: 1 year / 2 Semesters  |
| re<br>In                        | COMPLETION REQUIREMENTS   |
| ng                              | To qualify Deficiency Semester, students are  |
| 5                               | required to qualify each course with at least 50% marks.  |

# SPECIALIZATION CERTIFICATES

This program has been designed for graduates having 16 year of education in any discipline and intends to sharpen skills and enhance educational, academic and professional qualifications while minimizing the costs of their studies. This will also broaden a student's knowledge and increase career opportunities available in rapidly changing and competitive business environment.

# ASSESSMENT OF STUDY PROGRESS:

The evaluation of students' study progress for deficiency courses is based on continuous assessment throughout the semester by giving assignments, on-line quizzes, Graded Discussion Boards, mid-term and final-term examinations. The mid-term and final-term exams are conducted at VU's designated exam centers and usually count 80 to 85% of the total marks of a course.

# AREAS OF SPECIALIZATION

Students may select an area of specialization from the following groups.

Banking

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- Finance
- Human Resource Management
- Management
- · Management Information System, and
- Marketing

# BANKING

| Code   | Title                                | Cr. Hrs. |
|--------|--------------------------------------|----------|
| BNK601 | Banking Laws & Practices             | 3        |
| BNK603 | Consumer Banking                     | 3        |
| FIN625 | Credit & Risk Management             | 3        |
| MGT604 | Management of Financial Institutions | 3        |

# ADMISSION ELIGIBILITY CRITERIA

Candidate must have completed at least 16-year of education in any discipline from a recognized University/Institution.

Students already enrolled in a Virtual University degree/diploma program can enroll "Specializations Certificate" upon completion of their existing program.

**DURATION: 18 Weeks / 1 Semester** 

# AWARD OF CERIFICATE

To become eligible for the award of Specialization Certificate, the students are required to **Pass or achieve at least D grade** in each course of the selected area of specialization.

# FINANCE

| de   | Title                                      | Cr. Hrs. |
|------|--|----------|
| 1621 | Financial Statement Analysis               | 3        |
| 1622 | Corporate Finance                          | 3        |
| 1623 | Taxation Management                        | 3        |
| 1630 | Investment Analysis & Portfolio Management | 3        |

# HUMAN RESOURCE MANAGEMENT

| Code    | Title                      | Cr. Hrs. | Code    | Title                        | Cr. Hrs. |
|---------|----------------------------|----------|---------|------------------------------|----------|
| HRM624  | Conflict Management        | 3        | MGMT623 | Leadership & Team Management | 3        |
| HRM627  | Human Resource Development | 3        | MGMT625 | Change Management            | 3        |
| MGMT611 | Human Relations            | 3        | MGMT628 | Organizational Development   | 3        |
| MGMT628 | Organizational Development | 3        | MGT510  | Total Quality Management     | 3        |

# MANAGEMENT INFORMATION SYSTEM

| Code  | Title                       | Cr. Hrs. | Code   | Title                            | Cr. Hrs. |
|-------|-----------------------------|----------|--------|----------------------------------|----------|
| CS201 | Introduction to Programming | 3        | MKT610 | Customer Relationship Management | 3        |
| CS403 | Database Management Systems | 3        | MKT621 | Advertising & Promotion          | 3        |
| CS610 | Computer Network            | 3        | MKT624 | Brand Management                 | 3        |
| Cs615 | Software Project Management | 3        | MKT630 | International Marketing          | 3        |
|       | -                           |          |        |                                  |          |

# Boost your career through Specialization Certificates

# MANAGEMENT

# MARKETING

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# Faculty of Science & Technology

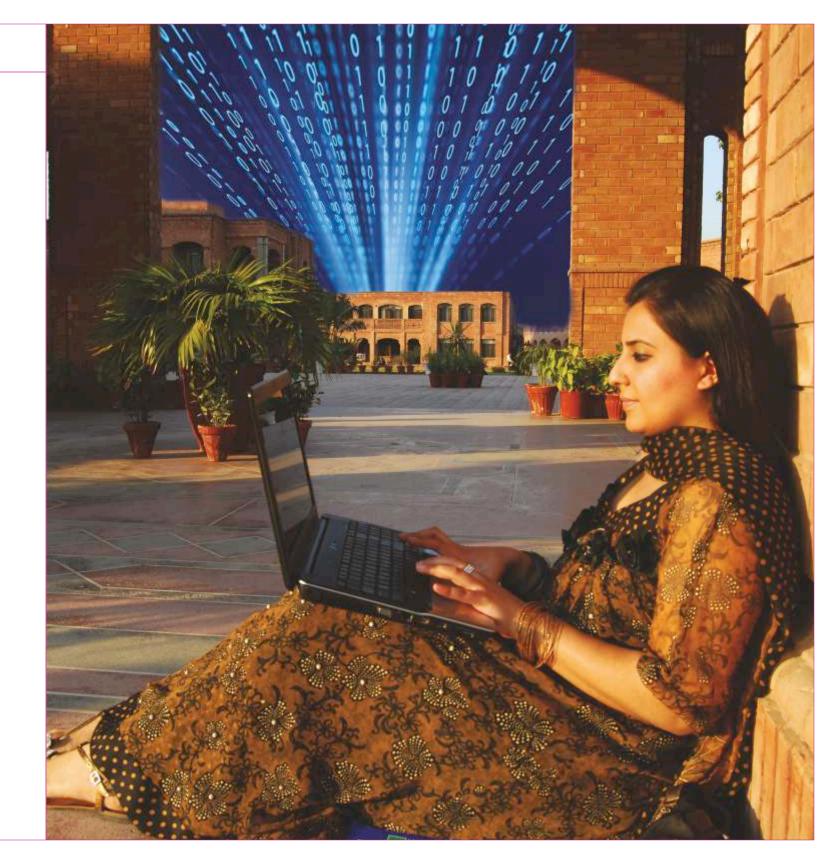
# Department of Bioinformatics & Computational Biology

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| <ul> <li>Master of Science (2–Year) Programs</li> <li>MS Zoology</li> <li>MS Genetics</li> <li>MS Molecular Biology (New Program w.e.f. Fall-2016)</li> </ul> | 157<br>159<br>161  |
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# NOTE

The Virtual University of Pakistan may add new course(s)/ subject(s) or replace existing ones at any time as a result of continuous review of scheme of studies of the programs in order to bring them at par with the courses being taught at top notch foreign universities. While reviewing the courses, needs of local industry and job markets are also given full consideration.



# **MS BIOINFORMATICS**

Master of Science in Bioinformatics is a research based degree program offered by the Department of Bioinformatics and Computational Biology. The field of Bioinformatics has emerged with a merger of biological science and computer science to help in storing, visualizing and interpreting the biological data. The program has been designed to equip the students with latest knowledge, tools and techniques to develop algorithms/tools for protein/homology modelling, generating protein sequences and structure alignments, simulators for constructing true alignments. The program aims at fulfilling the needs of educational and research institutions and the industry serving/ specializing in the fields of health and life sciences.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Summary of Courses |                |                     |  |  |
|--------------------|----------------|---------------------|--|--|
| Course Type        | No. of Courses | <b>Credit Hours</b> |  |  |
| Required Courses   | 4              | 12                  |  |  |
| Elective Courses   | 4              | 12                  |  |  |
| Thesis             | 1              | 6                   |  |  |
| Total              | 9              | 30                  |  |  |

# **DEFICIENCY COURSES**

If the schedule of courses pursued by a candidate does not provide adequate background for the degree course, which he/she intends to take up, he/she is required to qualify the deficiency course(s) during their initial semester(s) prescribed by the University. Credit hours for deficiency courses are not counted towards calculation of CGPA and award of degree.

# THESIS

The students are required to submit a Research Thesis worth 6-credit hours. Topic of the thesis must be decided after consultation with the supervisor.

# ADMISSION ELIGIBILITY CRITERIA

16-year education i.e., BS/MSc in Zoology, Biology, Botany, BS in Biotechnology, Biological Sciences, Microbiology, Biochemistry, Environmental Sciences, Bioinformatics, Agriculture, Public health, MBBS, DVM or related sciences/ equivalent with at least 1st Division in annual system or at least CGPA 2.50 out of 4 in semester system.

Each candidate is required to pass the VU Entry Test with minimum 50% marks.

# Note:

- Candidates having less than 1st division or CGPA below 2.50 out of 4, will be eligible for admission after successful completion of "Zero Semester".
- · Limited seats are available on merit basis.
- Only local students are eligible for admission as it is not available in overseas mode.

**DURATION: 2 years / 4 Semesters** 

# AWARD OF DEGREE

To become eligible for the award of MS in Bioinformatics degree, a student is required to complete at least 24-credit hour prescribed course work [maximum three courses from Computer Science domain] and 6-credit hour Thesis Research with minimum CGPA of 2.50.

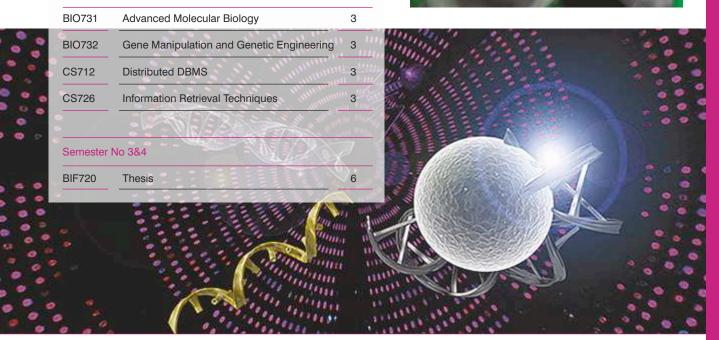
# SCHEME OF STUDIES

| Code                              | Title                              | Cr. Hrs. |  |  |
|-----------------------------------|------------------------------------|----------|--|--|
| Semester                          | Semester No 0 (Deficiency Courses) |          |  |  |
| BIO301                            | Essentials of Genetics             | 3        |  |  |
| BIO302                            | Molecular Biology                  | 4        |  |  |
| CS201                             | S201 Introduction to Programming   |          |  |  |
| CS403 Database Management Systems |                                    | 3        |  |  |
| CS502                             | Fundamentals of Algorithms         | 3        |  |  |

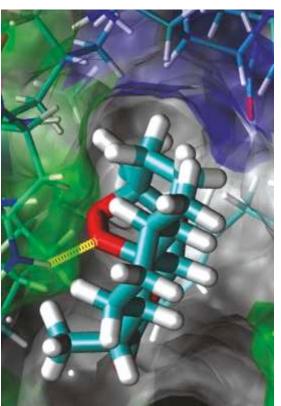
# Semester No 1

| BIF731 | Advanced Bioinformatics                              | 3 |
|--------|--|---|
| BIF732 | Advanced Computing Approaches                        | 3 |
| BIF733 | Bioinformatics - I(Essentials of Genome Informatics) | 3 |
| CS702  | Advanced Algorithms Analysis and Design              | 3 |

# Semester No 2



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# **BS BIOINFORMATICS**

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The Department of Bioinformatics & Computational Biology offers 4-year / 8-semester BS programs in Bioinformatics. The program consists of courses combined from the fields of Biology and Computer Science and aims to enable its students capable of collecting, linking, and manipulating different types of biological information to discover new biological insight while using the Information Technology they can translate raw biological data into knowledge. Bioinformatics is an emerging filed which is playing a critical role in understanding biological data by providing quick information and opening new avenues for the graduates.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), course(s) practicals (wherein applicable), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Summary of Courses |                |                     |  |
|--------------------|----------------|---------------------|--|
| Course Type        | No. of Courses | <b>Credit Hours</b> |  |
| Required Courses   | 36             | 114                 |  |
| Elective Courses   | 4              | 12                  |  |
| Project            | 1              | 6                   |  |
| Total              | 41             | 132                 |  |

# COURSE(S) PRACTICALS

Participation in practical classes of a course(s) will be compulsory for a student to qualify respective course(s) that will be conducted at only VU designated laboratories i.e. VKHI01: Karachi, VLHR03: Lahore, VMTN01: Multan, and VRWP01: Rawalpindi.

# AWARD OF DEGREE

To become eligible for the award of BS in Bioinformatics degree, a student is required to complete at least 132 credit hours course work including practical and Project worth 6 credit hours with minimum CGPA of 2.00.

# ADMISSION ELIGIBILITY CRITERIA

Candidates having at least 45% marks in Intermediate (12 years of education) with Pre-Engineering/Pre-Medical/Computer Science.

# Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC), Islamabad.(www.ibcc.edu.pk)
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".
- Only local students are eligible for admission as it is not available in overseas mode.

**DURATION: 4 years / 8 Semesters** 

# SCHEME OF STUDIES

| Code                    | Title                                      | Cr. Hrs. |  |  |
|-------------------------|--|----------|--|--|
| Semester No 1           |  |          |  |  |
| ENG101                  | English Comprehension                      | 3+0      |  |  |
| ELC101                  | Biology / Mathematics                      | 3+0      |  |  |
| BIO102                  | Chemistry / Introduction to Computing      | 3+0      |  |  |
| PAK301 Pakistan Studies |  | 2+0      |  |  |
| ISL201                  | Islamic Studies / Ethics (For Non Muslims) | 1+0      |  |  |

| Code     | Title  | Cr. Hrs. | Code     | Title                                 | Cr. Hrs |
|----------|--|----------|----------|---------------------------------------|---------|
| Semester | No 2   |          | BIF501   | Bioinformatics – II                   | 3+0     |
| BIO201   | Basic Cell Biology   | 3+1      | BIO502   | Genomics                              | 3+0     |
| CS201    | Introduction to Programming  | 3+0      |          |                                       |         |
| MTH203   | Basic Calculus   | 3+0      | Semester | No 6                                  |         |
| BIO202   | Biochemistry – I   | 3+1      | BIF601   | Bioinformatics Computing - I          | 3+0     |
| ENG201   | Business and Technical English Writing   | 3+0      | CS620    | Modelling & Simulation                | 3+0     |
|          |  |          | BIO601   | Proteomics                            | 3+0     |
| Semester | No 3   |          | CS621    | Graphics & Visualization              | 3+0     |
| MTH302   | Linear Algebra & Differential Equations  | 3+0      | CS622    | Web Design & Development              | 3+0     |
| BIO301   | Essentials of Genetics   | 2+1      | XYZ      | Elective – I                          | 3+0     |
| BIO302   | Molecular Biology  | 3+1      |          | · ·                                   |         |
| CS305    | Fundamentals of Algorithms   | 3+0      | Semester | No 7                                  |         |
| CS304    | Object Oriented Programming  | 3+0      | BIO701   | Bioinformatics Computing - II         | 3+0     |
| ENG301   | Business Communication   | 3+0      | CS701    | Artificial Intelligence               | 3+0     |
|          |  |          | BIO619   | Research Project                      | 0+3     |
| Semester | No 4   |          | XYZ      | Elective - II                         | 3+0     |
| BIF401   | Bioinformatics – I   | 3+0      | XYZ      | Elective - III                        | 3+0     |
| BIO401   | Biostatistics  | 3+0      |          |                                       |         |
| BIO402   | Biochemistry – II  | 3+1      | Semester | No 8                                  |         |
| BIF402   | Ethical & Legal Issues in Bioinformatics                                       | 2+0      | BIF801   | Bioinformatics Software Engineering   | 3+0     |
| CS401    | Data Structure   | 3+0      | BIF802   | Special Topics in Bioinformatics      | 3+0     |
| CS411    | Visual Programming   | 3+0      | BIO619   | Research Project                      | 0+3     |
|          |  |          | XYZ—     | Elective IV                           | 3+0     |
| Semester | No 5   |          |          | · · · · · · · · · · · · · · · · · · · |         |
| MTH501   | D1 Discrete Mathematics 3+0 List of Elective Courses is Available on VU Websit |          |          | site.                                 |         |
| BIO501   | Research Methodology   | 2+0      |          |                                       |         |
| CS501    | Database Management Systems  | 3+0      |          |                                       |         |

# Faculty of Science & Technology

# **MS ZOOLOGY**

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The Department of Biology offers MS program in Zoology which has been designed to address the future challenges to our World and preparing the graduates to help in identifying and suggesting solutions for either stopping or at least slowing down those process of rapid change taking place. The program aims to develop researchers to serve in universities, Institutes for ecology, environmental agencies, healthcare, molecular biology, conservation & forest management, climate change, scientific publishing, public education (zoos, museums, nature reserves, scientific societies etc.), biomedical sciences, diagnosing genetic disorders, National Institute of Oceanography, Wildlife Conservation and Management, Public and Private Sectors, Forensic Department, Environmental Institutions and Pathological Laboratories.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Summary of Courses      |                |                     |  |
|-------------------------|----------------|---------------------|--|
| Course Type             | No. of Courses | <b>Credit Hours</b> |  |
| <b>Required Courses</b> | 2              | 6                   |  |
| Elective Courses        | 6              | 18                  |  |
| Thesis                  | 1              | 6                   |  |
| Total                   | 9              | 30                  |  |

# **DEFICIENCY COURSES**

If the schedule of courses pursued by a candidate does not provide adequate background for the degree course, which he/she intends to take up, he/she is required to qualify the deficiency course(s) during their initial semester(s) prescribed by the University. Credit hours for deficiency courses are not counted towards calculation of CGPA and award of degree.

# THESIS

The students are required to submit a Research Thesis worth 6-credit hours. Topic of the thesis must be decided after consultation with the supervisor.

# **ADMISSION ELIGIBILITY CRITERIA**

16-year education i.e., BS/ M.Sc. Zoology/ Biology/ BS (Biotechnology/ Microbiology/ Environmental Sciences/ Bioinformatics/ Biochemistry/ Forestry/ Agriculture/ Public Health or in related sciences/ MBBS/ DVM etc.) or equivalent with at least 1st Division or CGPA of 2.50 out of 4.

Each candidate is required to pass the VU Entry Test with minimum 50% marks.

# Note:

- · Candidates having less than 1st division or CGPA below 2.50 out of 4, will be eligible for admission after successful completion of "Zero Semester".
- Limited seats are available on merit basis.
- Only local students are eligible for admission as it is not available in overseas mode.

**DURATION: 2 years / 4 Semesters** 

# AWARD OF DEGREE

To become eligible for the award of MS in Zoology degree, a student is required to complete at least 24-credit hour prescribed course work and 6-credit hour Thesis Research with minimum CGPA of 2.50.

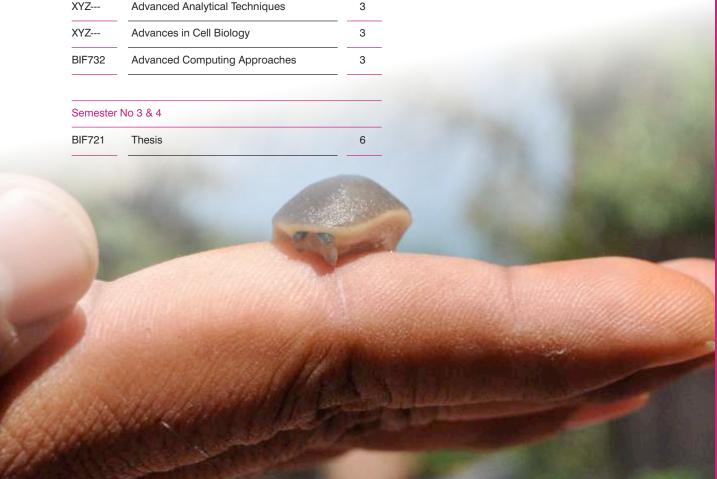
# SCHEME OF STUDIES

| Code   | Title                                     | Cr. Hrs. |
|--|---|----------|
| Semester   | No 1                                      |          |
| BIO731   | Advanced Molecular Biology                | 3        |
| BI0732   | Gene Manipulation and Genetic Engineering | 3        |
| BIF731   | Advanced Bioinformatics                   | 3        |
| BT731 Modern Biotechnology: Principles & Applications3 |   |          |

# Semester No 2

| XYZ    | Applied Biostatistics          | 3 |
|--------|--------------------------------|---|
| XYZ    | Advanced Analytical Techniques | 3 |
| XYZ    | Advances in Cell Biology       | 3 |
| BIF732 | Advanced Computing Approaches  | 3 |
|        |                                |   |

Thesis



# Faculty of Science & Technology



# **MS GENETICS**

MS in Genetics degree program is designed to provide a practical coverage of modern genetics directing on the organization, inheritance, expression and evolution of genes in organisms extending from bacteria to human. It is an important branch of biology that helps to unleash the information encrypted in DNA, inheritance and helps to find out how to avoid hereditary diseases, explore evolution and study biodiversity/variation in living organisms by studying DNA and genes and their interactions. It has plenty of practical applications like understanding the genetic basis behind the human genetic disorders; better understanding of evolution of species, forensics, legal implications and genetic enhancement of abilities. The trained manpower in this field is the need of time all over the world. The students get their jobs in academics, clinical research institutes, pharmaceutical industry, diagnostics, research laboratories, hospitals and as self-employed in genetic counseling practices etc.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Summary of Courses |                |                     |  |
|--------------------|----------------|---------------------|--|
| Course Type        | No. of Courses | <b>Credit Hours</b> |  |
| Required Courses   | 4              | 12                  |  |
| Elective Courses   | 4              | 12                  |  |
| Thesis             | 1              | 6                   |  |
| Total              | 9              | 30                  |  |

# **DEFICIENCY COURSES**

If the schedule of courses pursued by a candidate does not provide adequate background for the degree course, which he/she intends to take up, he/she is required to qualify the deficiency course(s) during their initial semester(s) prescribed by the University. Credit hours for deficiency courses are not counted towards calculation of CGPA and award of degree.

# THESIS

The students are required to submit a Research Thesis worth 6-credit hours. Topic of the thesis must be decided after consultation with the supervisor.

# ADMISSION ELIGIBILITY CRITERIA

16-year education i.e., BS/ M.Sc. Zoology/ Biology/ Botany/ BS (Biotechnology/ Microbiology/ Environmental Sciences/ Bioinformatics/ Biochemistry/ Forestry/ Agriculture/ Public Health or in related sciences/ MBBS/ DVM etc.) or equivalent with at least 1st Division or CGPA of 2.50 out of 4.

Each candidate is required to pass the VU Entry Test with minimum 50% marks.

# Note:

- Candidates having less than 1st division or CGPA below 2.50 out of 4, will be eligible for admission after successful completion of "Zero Semester".
- · Limited seats are available on merit basis.
- Only local students are eligible for admission as it is not available in overseas mode.

**DURATION: 2 years / 4 Semesters** 

# AWARD OF DEGREE

To become eligible for the award of MS in Genetics degree, a student is required to complete at least 24-credit hour prescribed course work and 6-credit hour Thesis Research with minimum CGPA of 2.50.

# SCHEME OF STUDIES Code Title Cr. Hrs. Semester No 1 BBI0731 Advanced Molecular Genetics **BIF701 Bioinformatics** 3 Advanced Cytogenetics 3 XYZ----XYZ----**Biometrical Techniques in Genetics** 3 Semester No 2 3 BT732 **Genetics & Genomics** Biosafety, Biosecurity & Bioethics BT733 3 BI0732 Gene Manipulation & Genetic Engineering 3 XYZ— **Evolutionary Genetics** 3 Semester No 3 & 4 GEN721 Thesis 6



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# **MS MOLECULAR BIOLOGY**

Molecular Biology is a branch of science which explores cellular structures, characteristics and pays special attention to the molecules which control cell activities and growth etc. The field of molecular biology bridges biology & chemistry particularly genetics & biochemistry. There is hardly any area in biological advancement that is not influenced by molecular biology techniques. The students will get the opportunity to conduct a specific research project during the MS degree. This degree can serve as a link for candidates pursuing higher education towards Ph.D. The graduates will be able to work in organizations like pharmaceutics, diagnostic laboratories, biologics production units, biosecurity & biosafety departments, accreditation labs, teaching as well as research organizations.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, guizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Summary of Courses |                |                     |  |
|--------------------|----------------|---------------------|--|
| Course Type        | No. of Courses | <b>Credit Hours</b> |  |
| Required Courses   | 4              | 12                  |  |
| Elective Courses   | 4              | 12                  |  |
| Thesis             | 1              | 6                   |  |
| Total              | 9              | 30                  |  |

# **DEFICIENCY COURSES**

If the schedule of courses pursued by a candidate does not provide adequate background for the degree course, which he/she intends to take up, he/she is required to qualify the deficiency course(s) during their initial semester(s) prescribed by the University. Credit hours for deficiency courses are not counted towards calculation of CGPA and award of degree.

# THESIS

The students are required to submit a Research Thesis worth 6-credit hours. Topic of the thesis must be decided after consultation with the supervisor. The research can be conducted in VU own laboratories at i.e. VKHI01: Karachi, VLHR03: Lahore, VMTN01: Multan, and VRWP01: Rawalpindi or any other designated lab by the university. Thesis will be submitted as per VU approved format.

# **ADMISSION ELIGIBILITY CRITERIA**

The 16-year education i.e. BS/MSc in Molecular Biology/ Biotechnology/ Genetics/ Biological Sciences or equivalent with at least 1st Division in annual system or at least CGPA 2.50 out of 4 in semester system.

Each candidate is required to pass the VU Entry Test with minimum 50% marks.

# Note:

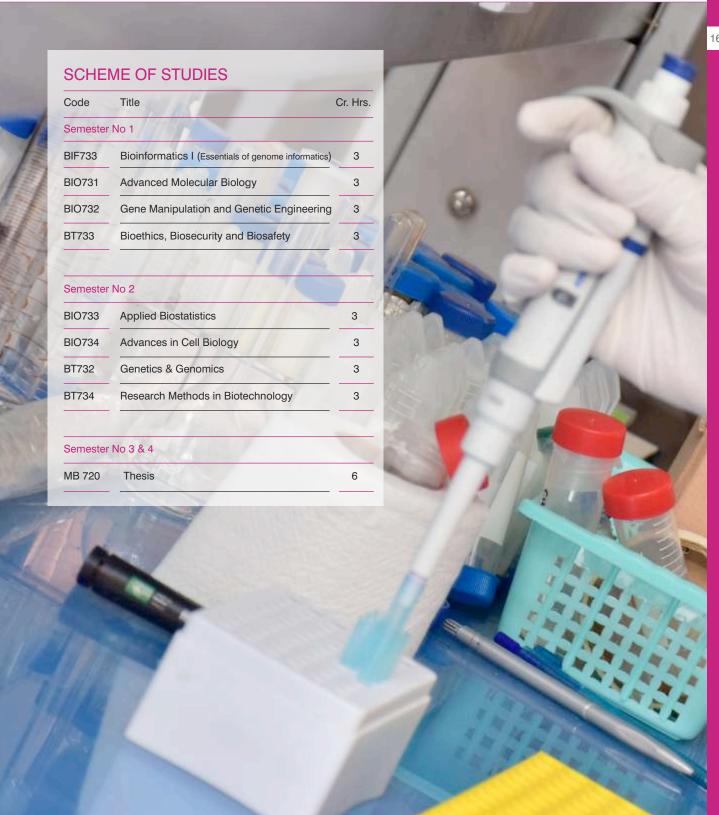
- · Candidates having less than 1st division or CGPA below 2.50 out of 4, will be eligible for admission after successful completion of "Zero Semester".
- Only local students are eligible for admission as it is not available in overseas mode.

**DURATION: 2 years / 4 Semesters** 

# AWARD OF DEGREE

To become eligible for the award of MS in Molecular Biology degree, a student is required to complete at least 24-credit hour prescribed course work and 6-credit hour Thesis Research with minimum CGPA of 2.50 out of 4.

| Code     | Title   | Cr. Hr |  |  |
|----------|---|--------|--|--|
| Semester | No 1  |        |  |  |
| BIF733   | Bioinformatics I (Essentials of genome informatics) | 3      |  |  |
| BIO731   | Advanced Molecular Biology                          | 3      |  |  |
| BIO732   | Gene Manipulation and Genetic Engineering           | 3      |  |  |
| BT733    | Bioethics, Biosecurity and Biosafety                | 3      |  |  |
| 15       | ISBUT IN  |        |  |  |
| Semester | No 2  | 2      |  |  |
| BIO733   | Applied Biostatistics                               | 3      |  |  |
| BIO734   | Advances in Cell Biology                            |        |  |  |
| BT732    | Genetics & Genomics                                 |        |  |  |
| BT734    | Research Methods in Biotechnology                   | 3      |  |  |
|          | 1 departe   |        |  |  |
| Semester | No 3 & 4  | 1      |  |  |
|          | Thesis  | 6      |  |  |



# Department of Biology

# M.Sc. ZOOLOGY

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M.Sc. Zoology is designed to meet the challenges presented by the rapidly changing world. Zoology is an interdisciplinary field that involves the scientific learning of all facets of animal life ranging from microscopic single-celled organisms to complex multicellular organisms. Zoology plays an important part in food security, human resource development, environmental conservation, sustainable development and eventually in mitigation of poverty. The aim of the M.Sc. Program is to prepare the students to conduct experiments and projects using scientific methods and instrumentation, and to solve problems in the domain of Zoology so that they may play vital role for the betterment of the country.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Sun              | mary of Courses |                     |
|------------------|-----------------|---------------------|
| Course Type      | No. of Courses  | <b>Credit Hours</b> |
| Required Courses | 18              | 60                  |
| Research Thesis  | 1               | 6                   |
| Total            | 19              | 66                  |

# COURSE(S) PRACTICALS

Participation in practical classes of a course(s) will be compulsory for a student to qualify respective course(s) that will be conducted at only VU designated laboratories i.e. VKHI01: Karachi, VLHR03: Lahore, VMTN01: Multan, and VRWP01: Rawalpindi.

# THESIS

The students are required to submit a Research Thesis worth 6-credit hours. Topic of the thesis must be decided after consultation with the supervisor. The research can be conducted in VU own laboratories at i.e. VKHI01: Karachi. VLHR03: Lahore, VMTN01: Multan, and VRWP01: Rawalpindi or any other designated lab by the university. Thesis will be submitted as per VU approved format.

# ADMISSION ELIGIBILITY CRITERIA

Candidates having Bachelor's degree (14-year education) i.e. B.Sc. 2-year program with Zoology or any other related/ equivalent subject with at least 45% marks in annual system or CGPA of at least 2.00 out of 4 in semester system are eligible to apply.

# Note:

 Only local students are eligible for admission as it is not available in overseas mode.

**DURATION: 2 years / 4 Semesters** 

# AWARD OF DEGREE

For the award of M.Sc. Zoology degree, a student is required to qualify prescribed courses amounting to at least 60 credit hours and 06 credit hours of thesis research with a minimum CGPA of 2.00 out of 4.



# SCHEME OF STUDIES

| Code     | Title                  | Cr. Hrs. | Code     | Title                          | Cr. Hrs. |
|----------|------------------------|----------|----------|--------------------------------|----------|
| Semester | No 1                   |          | Semester | r No 3                         |          |
| BIO201   | Cell Biology           | 4(3-1)   | BIF501   | Bioinformatics - II            | 4(2-2)   |
| BIO202   | Biochemistry - I       | 4(3+1)   | BT102    | Microbiology                   | 3(2+1)   |
| BIO302   | Molecular Biology      | 4(3-1)   | Z00-     | Animal Physiology and Behavior | 4(3-1)   |
| BIO301   | Essentials of Genetics | 3(2-1)   | Z00-     | Developmental Biology          | 3(2-1)   |
| MTH100   | General Mathematics    | 3(3-0)   | Z00-     | Research Methods in Biology    | 3(2-1)   |
|          |                        |          |          |                                |          |

| Se | emester | No 2                              |        | Semeste | er No 4                       |           |
|----|---------|-----------------------------------|--------|---------|-------------------------------|-----------|
| BI | F401    | Bioinformatics - I                | 3(3+0) | Z00-    | Zoogeography and Paleontology | 3(3-0)    |
| BT | Г101    | Ecology, Biodiversity & Evolution | 3(3+0) | Z00-    | Wildlife                      | 3(3-0)    |
| Bľ | T301    | Introduction to Biotechnology     | 3(3+0) | Z00-    | Seminar                       | 1(0-1)    |
| CS | S101    | Introduction to Computing         | 3(3-0) | Z00-    | Research                      | 6(0-6)    |
| ST | FA301   | Statistics and Probability        | 3(3-0) |         | Call 100 State                | D. THE    |
| ZC | -00     | Limnology                         | 3(3-0) |         | Les A                         | 400       |
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| 8  |         |                                   |        |         |                               | Star Lett |





# Department of Biology

# **Ph.D BIOTECHNOLOGY**

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The Ph.D in Biotechnology is intended to train professionals in research in all fields of biotechnology. It is a domain of applied biology that uses living organisms and bioprocesses to produce products to gratify the human needs. The aim of higher studies in Biotechnology is to equip the students with theoretical and practical skills that are essential to transform natural resources into useful products and completing original and innovative high quality research projects in the national and international enterprises. The scholars may seek their career in educational institutes, scientific research institutes, biotechnology and pharmaceutical industry at national and international level.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), term papers etc., mid-term and final-term examinations.

| Sun              | mary of Courses |                     |
|------------------|-----------------|---------------------|
| Course Type      | No. of Courses  | <b>Credit Hours</b> |
| Elective Courses | 6               | 18                  |
| Thesis           | 1               | 12                  |
| Total            | 7               | 30                  |

# ADMISSION ELIGIBILITY CRITERIA

18-year education i.e., MS/ M.Phil in Biotechnology/Biological Sciences/ Bioinformatics or equivalent with minimum CGPA 3.0 out of 4.0 or 1st Division.

Each candidate is required to pass the VU Entry Test with minimum 70% marks/ 60% marks in GRE Subject along with interview and presentation.

# Note:

- Limited seats are available on merit basis.
- Only local students are eligible for admission as it is not available in overseas mode.

# **DEFICIENCY COURSES**

If the schedule of courses pursued by a candidate does not provide adequate background for the degree course, which he/she intends to take up, he/she is required to qualify the deficiency course(s) during their initial semester(s) prescribed by the University. Credit hours for deficiency courses are not counted towards calculation of CGPA and award of degree.

# THESIS

The students are required to submit a Research Thesis worth 12-credit hours. Topic of the thesis must be decided after consultation with the supervisor.

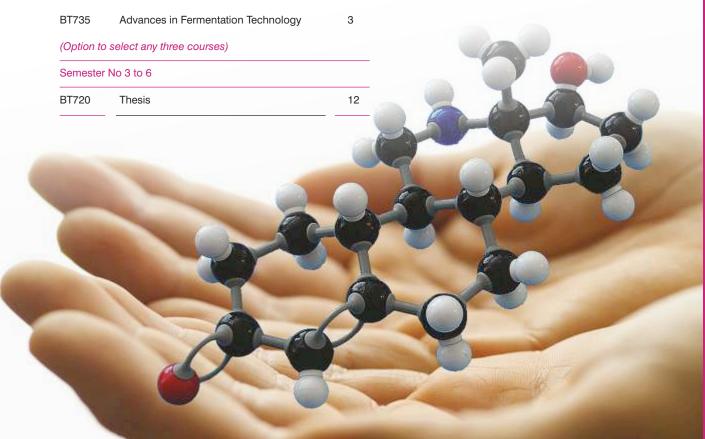
# AWARD OF DEGREE

For the award of the PhD in Biotechnology degree, students are required to complete 18 credits of course work with minimum CGPA of 3. The students also have to:

- pass written and oral comprehensive examinations securing minimum 60% marks with maximum two attempts
- Defend PhD research proposal after completion of 18 credit hours of course
- Get published minimum one first author research paper in HEC recognized journal and
- Present/ read one first author research paper in a national/international conference
- Get approved dissertation by two foreign experts.

# SCHEME OF STUDIES

| Code       | Title  | Cr. Hrs. |  |  |
|------------|--|----------|--|--|
| Semester   | No 1   |          |  |  |
| BT731      | Modern Biotechnology: Principles & Applicat      | ions3    |  |  |
| BT733      | Bioethics, Biosecurity and Biosafety             | 3        |  |  |
| BT732      | BT732 Genetics and Genomics                      |          |  |  |
| BIO732     | BIO732 Gene Manipulation and Genetic Engineering |          |  |  |
| (Option to | select any three courses)                        |          |  |  |
| Semester   | No 2   |          |  |  |
| BIO731     | Advanced Molecular Biology                       | 3        |  |  |
| BT734      | Research Methods in Biotechnology                | 3        |  |  |
| BIF731     | Advanced Bioinformatics                          | 3        |  |  |
| BT735      | Advances in Fermentation Technology              | 3        |  |  |
| (Option to | select any three courses)                        |          |  |  |
| Semester   | No 3 to 6  |          |  |  |
| BT720      | Thesis   | 12       |  |  |
|            |  | 100      |  |  |
|            |  |          |  |  |



# Faculty of Science & Technology

# **MS BIOTECHNOLOGY**

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MS in Biotechnology degree program is designed to gratify the needs of a multi-disciplinary and swiftly developing industry. Biotechnology affects a lot of facets of our daily lives such as food, crops, medicine, health and environment. The aim of the MS program is to equip students with the modern techniques so that they can play a key role in improving the ways of daily lives. The students may seek their career in educational institutes, scientific research, development, management in biotechnology, vaccines and pharmaceutical industry. They will also have expertise to critically analyze biological data using various computational techniques and tools.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), mid-term and final-term examinations.

| Sun              | mary of Courses |                     |
|------------------|-----------------|---------------------|
| Course Type      | No. of Courses  | <b>Credit Hours</b> |
| Required Courses | 4               | 12                  |
| Elective Courses | 4               | 12                  |
| Thesis           | 1               | 6                   |
| Total            | 9               | 30                  |

# **DEFICIENCY COURSES**

If the schedule of courses pursued by a candidate does not provide adequate background for the degree course, which he/she intends to take up, he/she is required to qualify the deficiency course(s) during their initial semester(s) prescribed by the University. Credit hours for deficiency courses are not counted towards calculation of CGPA and award of degree.

# THESIS

The students are required to submit a Research Thesis worth 6-credit hours. Topic of the thesis must be decided after consultation with the supervisor.

# **ADMISSION ELIGIBILITY CRITERIA**

16-year education i.e., BS/ M.Sc. Zoology/ Biology/ Botany/ BS (Biotechnology/ Microbiology/ Environmental Sciences/ Bioinformatics/ Biochemistry/ Forestry/ Agriculture/ Public Health or in related sciences/ MBBS/ DVM etc.) or equivalent with at least 1st Division or CGPA of 2.50 out of 4.

Each candidate is required to pass the VU Entry Test with minimum 50% marks.

# Note:

- · Candidates having less than 1st division or CGPA below 2.50 out of 4, will be eligible for admission after successful completion of "Zero Semester".
- · Limited seats are available on merit basis.
- Only local students are eligible for admission as it is not available in overseas mode.

**DURATION: 2 years / 4 Semesters** 

# AWARD OF DEGREE

To become eligible for the award of MS in Biotechnology degree, a student is required to complete at least 24-credit hour prescribed course work and 6-credit hour Thesis Research with minimum CGPA of 2.50.

| Semester No 1         BT731       Modern Biotechnology: Principles & Applications3         BT733       Bioethics, Biosecurity and Biosafety       3         BT732       Genetics and Genomics       3         BI0732       Gene Manipulation & Genetic Engineering       3         BI0732       Gene Manipulation & Genetic Engineering       3         Semester No 2       BI0731       Advanced Molecular Biology       3         BI734       Research Methods in Biotechnology       3         BI735       Advanced Bioinformatics       3         BT735       Advances in Fermentation Technology       3         Semester No 3 & 4       BIF721       Thesis       6 | Code     | Title                                      | Cr. Hr  |
|---|----------|--|---------|
| BT733       Bioethics, Biosecurity and Biosafety       3         BT732       Genetics and Genomics       3         BI0732       Gene Manipulation & Genetic Engineering       3         Semester No 2       3         BI0731       Advanced Molecular Biology       3         BI734       Research Methods in Biotechnology       3         BIF731       Advanced Bioinformatics       3         BT735       Advances in Fermentation Technology       3         Semester No 3 & 4       3  | Semester | No 1                                       |         |
| BT732       Genetics and Genomics       3         BI0732       Gene Manipulation & Genetic Engineering       3         Semester No 2       3         BI0731       Advanced Molecular Biology       3         BT734       Research Methods in Biotechnology       3         BIF731       Advanced Bioinformatics       3         BT735       Advances in Fermentation Technology       3         Semester No 3 & 4       3   | BT731    | Modern Biotechnology: Principles & Applica | ations3 |
| BIO732       Gene Manipulation & Genetic Engineering       3         Semester No 2       3         BIO731       Advanced Molecular Biology       3         BT734       Research Methods in Biotechnology       3         BIF731       Advanced Bioinformatics       3         BT735       Advances in Fermentation Technology       3         Semester No 3 & 4       3   | BT733    | Bioethics, Biosecurity and Biosafety       | 3       |
| Semester No 2         BIO731       Advanced Molecular Biology       3         BT734       Research Methods in Biotechnology       3         BIF731       Advanced Bioinformatics       3         BT735       Advances in Fermentation Technology       3         Semester No 3 & 4       4  | BT732    | Genetics and Genomics                      | 3       |
| BIO731       Advanced Molecular Biology       3         BT734       Research Methods in Biotechnology       3         BIF731       Advanced Bioinformatics       3         BT735       Advances in Fermentation Technology       3         Semester No 3 & 4       3  | BIO732   | Gene Manipulation & Genetic Engineering    | 3       |
| BIO731       Advanced Molecular Biology       3         BI734       Research Methods in Biotechnology       3         BIF731       Advanced Bioinformatics       3         BI735       Advances in Fermentation Technology       3         Semester No 3 & 4       4  | N. Fa    |  |         |
| BT734       Research Methods in Biotechnology       3         BIF731       Advanced Bioinformatics       3         BT735       Advances in Fermentation Technology       3         Semester No 3 & 4       3  | Semester | No 2                                       |         |
| BIF731       Advanced Bioinformatics       3         BT735       Advances in Fermentation Technology       3         Semester No 3 & 4       3  | BIO731   | Advanced Molecular Biology                 | 3       |
| BT735 Advances in Fermentation Technology 3 Semester No 3 & 4   | BT734    | Research Methods in Biotechnology          | 3       |
| Semester No 3 & 4   | BIF731   | Advanced Bioinformatics                    | 3       |
|   | BT735    | Advances in Fermentation Technology        | 3       |
|   |          | No. 21                                     |         |
| BIF721 Thesis 6   | Semester | No 3 & 4                                   | TV.     |
|   | BIF721   | Thesis                                     | 6       |
|   |          |  | -       |
|   |          |  |         |



# **BS BIOTECHNOLOGY**

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Biotechnology is the application of scientific and engineering principles to the processing of material by biological agents to deliver goods and services. Biotechnological applications play an important role in health industry, agriculture and environment and are helpful in making life of human beings peaceful and comfortable. The aim of BS in Biotechnology is to develop indigenous manpower in Biotechnology that will help the industry of biotechnology by making novel achievements. The students may seek their career in educational institutes, scientific research and development, diagnostics, industry and pharmaceutical sector.

# ASSESSMENT OF STUDY PROGRESS

The students study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, quizzes, Graded Discussion Boards (GDBs), course(s) practicals (wherein applicable), mid-term and final-term examinations at VU designated campuses and usually count for 80 to 85% of the total marks for a course.

| Sun              | mary of Courses |                     |
|------------------|-----------------|---------------------|
| Course Type      | No. of Courses  | <b>Credit Hours</b> |
| Required Courses | 44              | 126                 |
| Project          | 1               | 6                   |
| Total            | 45              | 132                 |

# COURSE(S) PRACTICALS

Participation in practical classes of a course(s) will be compulsory for a student to qualify respective Co course(s) that will be conducted at only VU designated laboratories i.e. VKHI01: Karachi, VLHR03: Lahore, VMTN01: Multan, and VRWP01: Rawalpindi.

# AWARD OF DEGREE

To become eligible for the award of BS in Biotechnology degree, a student is required to complete at least 132 credit hours course work including practical and Project worth 6 credit hours with minimum CGPA of 2.00.

# **ADMISSION ELIGIBILITY CRITERIA**

Candidates having at least 45% marks in Intermediate (12 years of education) with Pre-Medical.

# Note:

- Candidates having 'A' levels are required to provide equivalence certificate from Inter Board Committee of Chairman (IBCC). Islamabad. (http://www.ibcc.edu.pk)
- Only local students are eligible for admission as the program is not offered in overseas mode.
- Candidates having less than 45% marks will be eligible for admission after successful completion of "Zero Semester".

# **DURATION: 4 years / 8 Semesters**

# SCHEME OF STUDIES

| Code     | Title                                      | Cr. Hrs. |
|----------|--|----------|
| Semester | No 1                                       |          |
| CS101    | Introduction to Computing                  | 3+0      |
| ENG101   | English Comprehension                      | 3+0      |
| MGT301   | Principles of Marketing                    | 3+0      |
| MGT501   | Human Resource Management                  | 3+0      |
| MTH100   | General Mathematics                        | 3+0      |
| PAK301   | Pakistan Studies                           | 2+0      |
| ISL201   | Islamic Studies / Ethics (For Non-Muslims) | 1+0      |
|          |  |          |

| Code     | Title                                  | Cr. Hrs. | Code     | Title                                    | Cr. Hrs |
|----------|--|----------|----------|--|---------|
| Semester | No 2                                   |          | BT302    | Immunology                               | 3+0     |
| BIO201   | Cell Biology                           | 3+1      | STA301   | Statistics and Probability               | 3+0     |
| BIO202   | Biochemistry-I                         | 3+1      |          |  |         |
| BIO302   | Molecular Biology                      | 3+1      | Semester | No 6                                     |         |
| BT102    | Microbiology                           | 2+1      | BT401    | Genetic Resources & Conservation         | 3+0     |
| CHE101   | Organic Chemistry                      | 2+1      | BT402    | Microbial Biotechnology                  | 3+0     |
|          |  |          | BT403    | Agriculture Biotechnology                | 3+0     |
| Semester | No 3                                   |          | BT404    | Food Biotechnology                       | 3+0     |
| BIO206   | Biomathematics                         | 3+0      | BT406    | Research Methodology & Skill Enhancement | 3+0     |
| BT101    | Ecology, Biodiversity & Evolution-I    | 3+0      | BT405    | Nano Biotechnology                       | 3+0     |
| BT301    | Introduction to Biotechnology          | 3+0      |          |  |         |
| CHE201   | Physical Chemistry                     | 3+0      | Semester | No 7                                     |         |
| ENG201   | Business and Technical English Writing | 3+0      | BT501    | Heath Biotechnology                      | 3+0     |
| ENG301   | Business Communication                 | 3+0      | BT503    | Environment Biotechnology                | 3+0     |
|          |  |          | BT504    | Genomics and Proteomics                  | 3+0     |
| Semester | No 4                                   |          | BT505    | Biosensors                               | 3+0     |
| BIO303   | Biochemistry II                        | 3+1      | BT502    | Seminar-I                                | 1+0     |
| BIO203   | Methods in Molecular Biology           | 1+2      | BT619    | Research Project                         | 0+3     |
| BIO204   | Principles of Biochemical Engineering  | 2+1      |          |  |         |
| BIO301   | Essentials of Genetics                 | 2+1      | Semester | No 8                                     |         |
| CHE301   | Analytical Chemistry & Instrumentation | 2+1      | BT604    | Industrial Biotechnology                 | 3+0     |
| BT605    | Biosafety & Bioethics                  | 2+0      | BT601    | Virology                                 | 3+0     |
|          |  |          | BT603    | Fermentation Technology                  | 3+0     |
| Semester | No 5                                   |          | BT602    | Seminar-II                               | 1+0     |
| BIF401   | Bioinformatics - I                     | 3+0      | BT619    | Research Project                         | 0+3     |
| BIO503   | Biological Physics                     | 3+0      |          |  |         |
| BT201    | Ecology, Biodiversity & Evolution - II | 3+0      |          |  |         |

# Faculty of Science & Technology

# **MASTER OF SCIENCE IN MATHEMATICS** [With Thesis OR Course Work]

Department of Mathematics and Statistics offers Master of Science in Mathematics which is a research based degree program. Mathematics as a subject has found tremendous acknowledgement in almost all areas of sciences and humanities. The program is designed for students' needs and interests, with either a thesis or course work option. Mathematical techniques have been found very effective in decision making, which has increased its demand in different fields. This program serves as a bridge for candidates pursuing PhD program.

# ASSESSMENT OF STUDY PROGRESS:

Students' study progress is evaluated continuously throughout the semester using the assessment tools as described below. The mid-term and final-term exams are conducted at VU's designated exam centers.

| Summary           | of Courses       |         |
|-------------------|------------------|---------|
| Course Type       | No of<br>Courses | Cr Hrs. |
| Required Courses  | 4                | 12      |
| Elective Courses  | 4                | 12      |
| Thesis OR Courses | 1/2              | 6       |
| Total             | 9                | 30      |

# **ADMISSION ELIGIBILITY CRITERIA**

Candidates having 16-year education, i.e. M.Sc. Mathematics (2-year) or BS Mathematics (4year) or equivalent with at least CGPA 2.50 out of 4 or 1 st division wherein GPA system is not implemented.

# Note:

· Each candidate is required to pass the University's Entry Test (with minimum 50% marks).

# **DURATION: 2 years / 4 Semesters**



# SCHEME OF STUDIES

| Code     | Title                                    | Cr. Hrs. | Code  | Title                   | Cr. Hrs. |
|----------|--|----------|---|-------------------------|----------|
| Semester | No 1                                     |          | Semester  | No 3                    |          |
| MTH704   | Computational Software's for Mathematics | 3        | MTH720  | Thesis                  | 6        |
| MTH706   | Advanced Linear Algebra                  | 3        | MTH753  | Advanced Fluid Dynamics | 3        |
| CS723    | Probability and Stochastic Processes     | 3        |   |                         |          |
|          |  |          | Semester No 4   |                         |          |
| Semester | No 2                                     |          | MTH721  | Commutative Algebra     | 3        |
| MTH701   | Advanced Differential Equations          | 3        |   |                         |          |
| MTH730   | Advanced Research Methods for Mathematic | s 3      | AWARD OF DEGREE   |                         |          |
| MTH748   | Topics in Numerical Methods              | 3        | <b>Thesis Track:</b> To become eligible for the award of MS in Mathematics degree, a student is required to |                         |          |

# **GUIDELINES FOR THESIS ENROLLMENT:**

- · A merit list will be calculated before the start of course selection in each semester for the students. The basic criteria for the merit will be the completion of minimum 18 MS level credit hours with CGPA  $\geq$  2.75. Limited number of seats on merit will be offered to enroll thesis research. In case, a student, eligible for the thesis, opts to take the course work-only then the next student in the merit list will be offered the choice to enroll thesis research.
- After enrolling Thesis Research, a student may decide at any stage switch to the course work-only option.



# Faculty of Science & Technology

complete at least 24-credit hour prescribed course work and 6-credit hour Thesis Research with minimum CGPA of 2.50 out of 4.

# OR

Course Work Track: To become eligible for the award of MS in Mathematics degree, a student is required to complete at least 30-credit hour prescribed course work with minimum CGPA of 2.50 out of 4.



# ZERO SEMESTER FOR UNDERGRADUATE PROGRAMS

The Virtual University of Pakistan has introduced Zero Semester for the candidates seeking admission to Diploma, Associate Degree, Bachelor (2 or 4 Year) or Masters programs (equivalent to 16 years of education) who have passed the prescribed examinations, as per admission eligibility criteria, but failed to achieve requisite percentage of marks or CGPA. Upon qualifying Zero Semester courses in a single semester, such candidates can become eligible to apply for admission towards their desired study program.

# ASSESSMENT OF STUDY PROGRESS

The continuos study progress mechanism includes assignments, on-line quizzes, Graded Discussion Boards (GDBs), mid-term and final term exams

| Summary of Courses |                |                     |  |  |
|--------------------|----------------|---------------------|--|--|
| Course Type        | No. of Courses | <b>Credit Hours</b> |  |  |
| Required Courses   | 3              | 7                   |  |  |
| Total              | 3              | 7                   |  |  |

# LIST OF COURSES

| Code          | Title                  | Cr. Hrs. |  |
|---------------|------------------------|----------|--|
|               | The                    | U. HIS.  |  |
| Semester No 1 |                        |          |  |
| MTH001        | Elementary Mathematics | 2        |  |
| ENG001        | Elementary English     | 2        |  |
| CS001         | Computer Proficiency   | 3        |  |

# **ADMISSION ELIGIBILITY CRITERIA**

Candidates having less than 45% marks or Cumulative Grade Point Average (CGPA) will be eligible for admission.

# **DURATION: 18 Weeks / 1 Semester**

# VALIDITY

MS Zoology

MS Molecular Biology

MS Computer Science

# ZERO SEMESTER FOR MS PROGRAMS

The Zero Semester for following MS Programs has been introduced to provide an opportunity to deprived candidates who have earned their required degrees as prescribed in admission eligibility criteria for respective MS programs but do not fulfill either the minimum CGPA requirement i.e. 2.50 out of 4 or 1 st division:

5.

# LIST OF PROGRAMS

- MS Business Administration / Master of Business Administration (equivalent to MS)
- 2. MS Bioinformatics
- MS Biotechnology 3.
- 4. MS Genetics
- Note: Complete detail about courses of above mentioned programs is available on University's website.

# **CERTIFICATE COURSES**

The Virtual University has introduced Certificate Course(s) for professionals working in the industry as well as for the public at large. The purpose is to retain professionals in new emerging areas of Science & Technology as well as provide the public with an opportunity to learn basic subjects which may be of general interest. Certificate Courses are offered in following disciplines: Computer Science, Education, General Science, Humanities. Management and Mathematics.

# ASSESSMENT OF STUDY PROGRESS

The students' study progress evaluation mechanism is based on continuous assessment throughout the semester by giving assignments, online guizzes, Gradeo Moderated Discussion Boards (GMDBs), mid-term and final term examinations.

# EDUCATIONAL MATERIAL

The University mails a package of educational material · Students already enrolled in a Virtual comprising Lecture handouts and Lecture DVD's to the University degree/diploma program are admitted candidates. Students are allowed to change ineligible for admission towards certificate enrolled certificate course(s) within fifteen days after the course(s). commencement of semester. In such cases the students will be required to submit an application (signed hard **DURATION: 18 Weeks / 1 Semester** copy) giving valid reason/ justification for the change to the Registrar, Virtual University of Pakistan, M.A Jinnah Campus. Defence Road. Off Raiwind Road. Lahore. Pakistan . Such students are required to return the AWARD OF CERIFICATE received package (if already delivered) to the university via post/ courier along with payment of Rs.100/- as shipment Each Certificate Course is of three credit charges. Upon receipt of the said package, the university hours (except Islamic Studies and Pakistan will send the study material of revised/ changed courses. Studies). The earned course credit hours are Overseas students are required to pay actual additional transferable towards degree/diploma shipment charges for newly opted course. program of the University.

Note: Complete list of Certificate Courses is available on University's website.

Zero Semester. once qualified will remain valid for all subsequent admissions.

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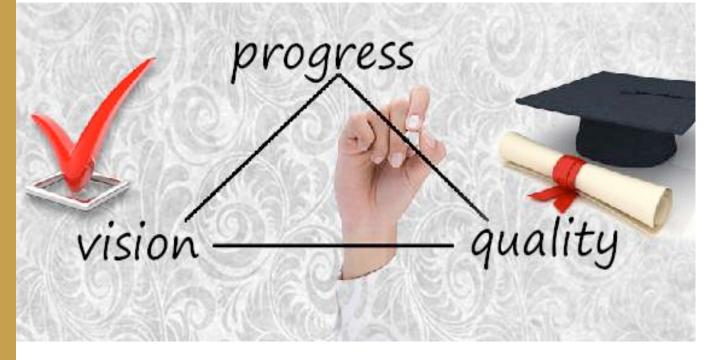
- understand English language. · There is no restriction on age, gender and educational gualifications.
- Maximum four (04) courses can be enrolled during a semester.

**ADMISSION ELIGIBILITY CRITERIA** 

· Candidates who can read, write and

Note:

# Directorate of Quality Enhancement



The quality of education is one of the major challenges faced by the universities now-a-days. In order to meet this challenge, Quality Assurance Agency (QAA) of Higher Education Commission (HEC), Pakistan requires establishment of Quality Enhancement Cells (QECs) in all universities and institutes of higher education. To comply with the requirement of HEC, Directorate of Quality Enhancement (DQE) was established in November 2010.

Since its inception, DQE is working hard to enhance the quality of its processes and services. Its functions are broadly categorized with respect to internal and external Quality Assurance (QA) measures. However, DQE is responsible to

conduct self-assessment of academic programs to assess whether its programs meet their intended objectives and outcomes so as to improve quality of programs and enhance students' learning. With the help of this process, the employers may determine if the specified programs inculcate the necessary skills in students that help them perform well on their jobs. Finally, the process enables the faculty to determine weaknesses in the programs and helps formulate appropriate strategies to meet the deficiencies. Hence, delivery methods and teaching methodologies can be re-visited.

DQE is involved in accreditation of academic programs through relevant councils to ensure that a set of specific standards are followed in the programs offered by the University. It collaborates with HEC for Institutional Performance Evaluation (IPE) with the aim to evaluate the system thoroughly to identify its strengths and weaknesses for improvement in processes and practices.

DQE carries out mandatory surveys as per HEC's requirement to evaluate the effectiveness of its contents and faculty. In this context, 'Student Course Evaluation' is conducted to evaluate the contents of the courses from students' perspective. 'Faculty Course Review' is conducted upon completion of a course to gather information about the course material and students' assessment. 'Teacher Evaluation Form' is filled by the students to provide feedback about the teacher and teaching methodology.

DQE participates and organizes events such as workshops, seminars, and conferences on QA to learn and share good practices. It helps in development and implementation of QA procedures for major functional areas of the



University for Strict Compliance. It makes endeavors to raise the curricula standards at national and international levels in order to enhance employability of the students in the job market. It collaborates with national and international institutions so that students and faculty can be benefitted by linkages with educational and research organizations. It is engaged in development of the University's annual report to bring to light the activities and achievements in all the functional areas.

DQE has consistently achieved top most 'W' category for the years 2012, 2013, and 2014. In addition, it has attained the membership of three international and two national institutions as per requirement of HEC. It has carried out selfassessment of eighteen (18) programs offered by the University. The concerted efforts are still underway to achieve excellence in teachinglearning processes through continuous improvement.



# Extra-Curricular Activities

The Virtual University of Pakistan has its presence in more than 100 cities of the Country which makes it a true challenge for the University to hold extra-curricular activities but the University has managed to take it students beyond the book.



There is a lot besides books and journals that VU has to unfold. To promote students' talent beyond the classroom, an exciting platform of student societies exists at Virtual University of Pakistan. To develop confidence and leadership qualities among students by triggering their talent, societies/clubs are performing their roles by engaging students in activities they would put their heart in to perform. We, at every campus, try our best to contribute significantly to build healthy minds in healthy bodies.

# **Clubs and Societies**

The following clubs and societies are fully functional and plan variety of events for the students:

# Camera Club

VU Camera Club aims to share the passion for photography. It provides interested students a playing field for photography and video production, all that's needed is an eye covered with lens. Students are being educated about art and science of camerawork and filmmaking. It has arranged educational workshops, trainings, instruction and mentoring for the aspiring students. The objective of Camera Club is to provide an outlet for the expression of creativity through lens.

# **Debate Society**

Debate society forum is an endeavor to instill the critical thinking and persuasive communication skills in VU students. Through debate society, VU aims at making its students become public leaders and business professionals who can

enjoy success based on skills acquired as active youth debaters. Student debaters of VU have earned a noteworthy prestige for the university at regional and national level debating/declamation contests.

# Environmental Protection Society

To leave a healthy world and a sustainable environment for our generations to come, Environmental Protection Society takes measures to rehabilitate, protect and enrich the environment. Plantation and anti-littering activities are held to clean, green and protect the environment. Besides this, focused discussion sessions are held to raise awareness regarding protection of Mother Nature. Walks are organized for general awareness on globally celebrated environment related days.

# Literary Club

Literary Club provides an organized platform for the students to learn from the renowned literary figures while polishing their creative abilities. Based on the number of campuses and students in each region, the society coordinates essay writing and poetry writing/recitation competitions, publications, mushaira and cap verses in various cities and campuses.

# Performing Arts Society

The mission of the Performing Arts Society is to inculcate knowledge, flexible attitude, confidence and human relations skills in our students. This society will develop and enhance the personality of the students by offering them a platform where they can transform their skills and talent into a more creative and presentable form. In the long run, our students will be able to connect with the students of conventional system which will further refine their artistic talent. Not only just VU provides students with opportunity to perform at national level but also, the students get their talents acclaimed by securing positions.

# IT Club Society

IT Club arranges such competitions through which we can shape students' knowledge, programming skills and their mind-set towards practical field. The IT Club provides an environment for the IT students to bring creativity and innovation in programming skills through some real-life computing/programming practices and promote the application of IT.

# **Quiz Society**

To increase the students' knowledge, VU Quiz Society provides a knowledge-testing platform to the students of Virtual University for enhancing their intellectual capacity. VU Quiz Society aims at channelizing students' cognitive abilities in a positive direction by engaging them into more creative activities, particularly quiz and programming competitions at different levels.

# **Sports Society**

With a vision to unearth and groom the tremendous potential of CYBERIANS to make them exemplary sportsmen, Virtual University intends to indulge its geographically widespread students in National and International sports. Sports Society at VU holds competitions across Pakistan for different games including cricket, football, table tennis, and chess.

# Tourism / Hiking Club

Tourism club promotes country's cultural and natural heritage through tourism in a sustainable

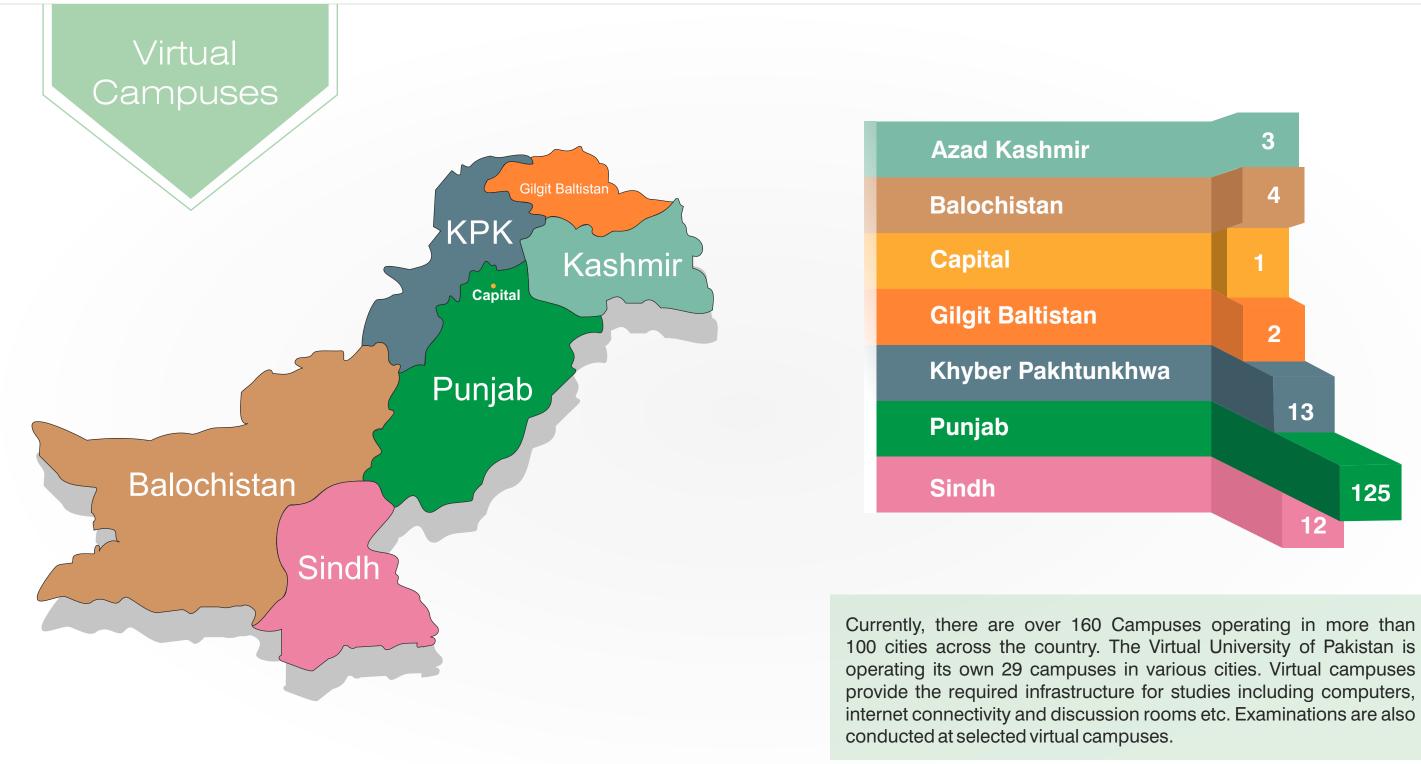
way by making Pakistani Youth conversant with regional trends and diversity. Based on the number of campuses and students in each region, the society coordinates the tour activities in various regions/cities. Tourism/ Hiking club also engages students to compete their fellows in trekking amidst the most scenic tracks of their tour destinations.

# **Character Building Society**

Character building society aimes to provide awareness, prevention from evils of corruption and enforcement of values which ultimately empowers ethical consciousness for moral acts and to perform obligations. It motivates to do right things to improve the ethical competency of individual to foresee the potential consequences of his acts in society. National Accountability Bureau (NAB) observes anti-corruption week from 8th December to 13th December every year. Following the same convention Virtual University of Pakistan celebrated anti-corruption day on 9th December, 2014.

# Society for Rising Entrepreneurs

Society for Rising Entrepreneurs aims to unlock and boost the entrepreneurial capabilities among students of Virtual University of Pakistan while providing trainings, research and development conferences and networking opportunities. It organizes annual "Business Plan Competition" (inter and intra university competition) and an Annual Conference for bringing the students, academicians, young entrepreneurs, corporates and policy makers together to share the vision of entrepreneurial future in Pakistan.



# Campus Life

This combination of technologies and efficient utilization of national infrastructure allows the Virtual University to offer an identical educational environment to students all over the country including far-flung areas. For the first time, students from small towns and remote areas have access to the same highly qualified professors that were previously accessible to their large city brethren only. Results indicate that talent hidden in these regions is now becoming visible and empowered. This has far reaching positive implications for the socio-economic well-being of the country. Students may study from home or at "virtual campuses" that have been established all over the country. These virtual campuses provide an enabling electronic environment for students to receive lectures and interact with their teachers including television equipped classrooms and Internet connected computer laboratories. A subliminal benefit of these campuses is that they also provide the students with an opportunity to interact with their peers in a conventional environment and form study groups.

# Friendly Campus Environment

The institutions of higher learning are the places

to generate and create new knowledge through a friendly, free environment conducive for freedom of thought, expression and reasoning. VU is promoting these virtues and culture by providing a pleasant and sociable atmosphere to interact with the students of diverse backgrounds due to which a great sense of fraternity and cultural mixing is seen on the campus. The University is providing confidence and trust among the students by providing welcoming and fearless environment. Our graduates have great confidence and trust on their abilities and a great desire to deliver in their future career as they are wiser and more knowledgeable.

# **Diverse Community**

Virtual University is an equal opportunity institution for the students, so it always welcomes students from all the corners of Pakistan and around the globe. This brings in the diverse community together, which generates great qualities of consideration, tolerance, understanding and fellow feeling among the graduates. The graduates of VU are over whelmed with a spirit of researching and serving across the country and the globe.



# Virtual University Campuses

# **BALOCHISTAN**

# QUETTA

Virtual University Campus, Quetta B-1, Model Town, Quetta **Campus Code:** VQTA01 **Phone:** 081- 9202983, 9202984 **Mobile:** 03337179200 **Email:** vqta01@vu.edu.pk

# CAPITAL

# ISLAMABAD

Virtual University Campus, Islamabad Plot No.26-B, Ali Arcade, Near Babri Mosque & Bank Al-falah Ltd, G-10 Markaz, Islamabad. **Campus Code:** VIBD01 **Phone:** 051-9213476, 9213490 **Email:** vibd01@vu.edu.pk

# **KHYBER PAKHTUNKHWA**

# ABBOTABAD

Virtual University Campus, Abbotabad Alhamra Building Near Silk Plaza & KIPS Academy, Mansehra Road, Abbotabad **Campus Code:** VABT01 **Phone:** 0992-923007, 923010, 400105 **Email:** vabt01@vu.edu.pk

# PESHAWAR

Virtual University Campus, Peshawar 8-Jamrud Road, P.O. Tehkal Bala, Adjacent Toyota Froniter Motors, Peshawar. **Campus Code:** VPSW01 **Phone:** 091-5701071, 5705994 **Fax:** 091-5711381 **Email:** vpsw01@vu.edu.pk

# PUNJAB

# **BAHAWAL NAGAR**

Virtual University Campus, Bahawal Nagar Opp. MEPCO Complex, Minchanabad Road, Bahawal Nagar **Campus Code:** VBWN01 **Phone:** 063-2272187, **Mobile:** 0305-8478975

,**Email:** vbwn01@vu.edu.pk

# BAHAWALPUR

Virtual University Campus, Bahawalpur Near Welcome Chowk, Opp.PANDA Restaurant, 1st Floor, Al-Noor Plaza, Railway Road, Bahawalpur **Campus Code:** VBWP01 **Phone:** 062-2887313, 062-2887314 **Mobile:** 03337618146 **Email:** vbwp01@vu.edu.pk

# D.G.KHAN

Virtual University Campus, D.G. khan Younis Plaza, 2nd and 3rd floor, Block No. 5, Railway Road, **Campus Code:** VDGK01 **Phone:** 064-2472812, 2472813 **Mobile:** 03216835671 **Email:** vdgk01@vu.edu.pk

# FAISALABAD

Virtual University Campus, Faisalabad Beacon Impex Plaza, 2nd Floor, Near Amba'n Wali Pulli, Bilal Road, New Civil Lines, Faisalabad. **Campus Code:** VFSD01 **Phone:** 041-2600234, 041-2600236 **Email:** vfsd01@vu.edu.pk

# **GUJAR KHAN**

Virtual University Campus, Gujar Khan Sultan Plaza, Takya baba Rahim shah, Ward No. 2, G.T Road Gujar Khan **Campus Code:** VGRK01 **Phone:** 051-3512707-08, **Mobile:** 0300 9192277 **Email:** vgrk01@vu.edu.pk

# **GUJRANWALA**

Virtual University Campus, Gujranwala Near Jamia Muhammadia, Kangniwala, G.T. Road, Gujranwala. **Campus Code:** VGJW01 **Phone:** 055-4551109, 4003132, 4294731 **Mobile:** 03214031855 **Email:** vgjw01@vu.edu.pk

# JHELUM

Virtual University Campus, Jhelum Metro Trade Center, Al-Markaz Road, Civil Lines, Opposite Church, Jhelum. Campus Code: VJHM01 Phone: 0544-9270134-35 Mobile: 03145429294 Email: vjhm01@vu.edu.pk

# JALALPUR PIRWALA

Virtual University Campus, Jalalpur Pirwala Old JPS, Multan Road Jalalpur Pirwala **Campus Code:** VJPW01 **Phone:** 061-4210012, 4210608 **Mobile:** 03007811929 **Email:** vjpw01@vu.edu.pk

# LAHORE

Virtual University Campus (Faisal Town), Lahore 939, Block-C, Moulana Shaukat Ali Road, Lahore. Campus Code: VLHR01 Phone: 042-35163854, 35162997, 35169939

Email: vlhr01@vu.edu.pk

Virtual University Campus (Feroze Pur Road), Lahore 2nd Floor, 122 - Feroze Pur Road Lahore. (Near Ichra Bus Stop) **Campus Code:** VLHR02 **Phone:** 042-37422188, 37422172, 37422186, 37422166 **Mobile:** 03126307046 **Email:** cm\_lhr2@vu.edu.pk, vlhr02@vu.edu.pk

Virtual University Campus (Davis Road) Lahore 1-Davis Road, Lahore **Campus Code:** VLHR03 **Phone:** 042-36297497, 042-36297498 **Email:** vlhr03@vu.edu.pk, cm\_lhr3@vu.edu.pk

# MAKHDOOM RASHEED

Virtual University Campus, Makhdoom Rasheed Jalal Center, Adda Makhdoom Rasheed, Multan Vehari Road, Makhdoom Rasheed **Campus Code:** VMKR01 **Phone:** 061-4592028 **Email:** vmkr01@vu.edu.pk

# MULTAN

Virtual University Campus, Multan 23/3, Officers Colony, 2nd & 3rd Floor, Near Chungi No. 9, Bosan Road, Multan **Campus Code:** VMTN01 **Phone:** 061- 6212273-74 **Mobile:** 03238134323 **Email:** cm\_mtn@vu.edu.pk

# MUZAFFARGARH

Virtual University Campus, Muzaffargarh Khawaja Ghulam Fareed Arcade, Multan Road, Muzaffargarh. Campus Code: VMZG01 Phone: 066-2422112-13 Mobile: 03150573119 Email: vmzg01@vu.edu.pk

# NANKANA SAHIB

Virtual University Campus, Nankana Sahib Naveed City Center, Shora Kothi Road, Nankana Sahib **Campus Code:** VNKN01 **Phone:** 056-2874400, 2874500 **Mobile:** 03007660286

Email: vnkn01@vu.edu.pk

# PATTOKI

Virtual University, Pattoki Campus H # 13, Chaudry Street, Shadman Colony near SNGPL Office, Pattoki Campus Code: VPTK01 Phone: 049-4421227-28 Email: vptk01@vu.edu.pk, cm\_ptk@vu.edu.pk

# **QADIRPUR RAAN**

Virtual University Campus, Qadirpur Raan Multan Road, Opposite Zahreer Hospital, Qadirpur Raan Campus Code: VQPR01 Phone: 061-4578028 Email: vuqpr01@vu.edu.pk

# RAWALPINDI

Virtual University Campus, Rawalpindi D-102, M.A. Road Satellite Town, Rawalpindi. **Campus Code:** VRWP01 **Phone:** 051 – 4853215, 4853216, 4853217 **Email:** vrwp01@vu.edu.pk

# SAHIWAL

Virtual University Campus, Sahiwal Saudi Tower, Opposite Jinnah Hall, Kachehry Road, Sahiwal. **Campus Code:** VSWL01 **Phone:** 040-4221311, 4221317 **Mobile:** 03325546342 **Email:** vswl01@vu.edu.pk

# SINDH

# BADIN

Virtual University Campus Badin Hyderabad By-Pass Road, Near Nadeem CNG Station, Badin **Campus Code:** VBDN01 **Phone:** 0297-870502 **Email:** vbdn01@vu.edu.pk

# GHOTKI

Virtual University Campus, Ghotki Government Degree College, Main Road, Ghotki. **Campus Code:** VGTK01 **Phone:** 0723-681092 **Mobile:** 03337221709 **Email:** vgtk01@vu.edu.pk

# HYDERABAD

Virtual University Campus, Hyderabad Near McDonalds, Main Auto Bhan Road, Latifabad, Hyderabad. **Campus Code:** VHYD01 **Phone:** 022-3411217-18 **Fax:** 022-3821273 **Email:** vhyd01@vu.edu.pk

# KARACHI

Virtual University Campus, Karachi A-21, KCHS, Near Duty Free Centre, Baloch Colony Bus Stop, Main Shahra-e-Faisal, Karachi **Campus Code:** VKHI01 **Phone:** 021-34313660-2 **Email:** vkhi01@vu.edu.pk

Virtual University Campus (North Nazimabad), Karachi

D3. First Floor. Block-D above Ufone Customer Service & Burj Bank North Nazimabad, Karachi. **Campus Code:** VKHI02

Phone: 021-36631986, 36632001, 36631982 Email: vkhi02@vu.edu.pk

# SUKKUR

Virtual University Campus, Sukkur Mezzanine Floor, Agha Khan Laboratory, Military Road, Sukkur. Campus Code: VSKR02 Phone: 071-5632930 Mobile: 03129880460 Email: VSKR02@vu.edu.pk

# Private Virtual Campuses (PVCs)

The Virtual University of Pakistan has also established Private Virtual Campuses (PVCs) in collaboration with its private sector partners in over 65 cities of the country. The complete list of the cities and campuses can be found at the University's website: http://www.vu.edu.pk. The PVCs are equipped with the latest computers, uninterrupted power supply and Internet connectivity. The campuses also have audiovisual lecture theaters to receive television broadcasts.

# AZAD KASHMIR

# KOTLI

Perfect Educators Post Graduate College Army Public School Road, near Masjid Khatm-e-Nabuat, Kotli (A.K) Campus Code: AKKT01 Phone: 05826-930093 Mobile: 03439770000 Fax: 05826-448000 Email: akkt01@vu.edu.pk, ce@perfecteducators.com

# MIRPUR

Savant College of Sciences & Information Technology A-1/3, Sector B/4, Allama Iqbal Road, Mirpur, Azad Kashmir Campus Code: AKMP01 **Phone:** 05827-446644, 447777, 448222 Email: akmp01@vu.edu.pk, vupvc137@hotmail.com

# **MUZAFFARABAD**

Tech Era College of Sciences & IT Bank Road, Muzaffarabad, Azad Kashmir Campus Code: AKMD02 Phone: 05822-447878 Mobile: 03009135122 **Fax:** 058810-47878 Email: akmd02@vu.edu.pk, tecsit@gmail.com, khabib08@gmail.com

# BALOCHISTAN

# **DERA BUGTI**

Taaleem Foudation Grammar School Sui Gas Field, Distt. Dera Bugti Campus Code: BDBT01 Phone: 0835-420367 Email: bdbt01@vu.edu.pk, gadeerahmad1337@gmail.com

# **QUETTA**

Pearl Institute of Management and Information Technology, PEARL institute of MS&IT, 54-A, Samungli Road, Opposite FIA building, Samungli Road Quetta. Campus Code: BQTA02 Phone: 081-2820615, 2838357 Fax: 081-820616 Email: bqta02@vu.edu.pk, info@pearl.edu.pk

# SIBBI

Sibbi Scouts Campus Near Commissioner Office Frontier Core Campus Code: BSBI01 Phone: 0833-9230035-6 Mobile: 03327948095 Email: sibiscouts@gmail.com

# **GILGIT BALTISTAN**

# GILGIT

Karakuram College of Commerce & Modern Sciences Halli chock near CSO office Jutial Gilgit Campus Code: NGLT01 **Phone:** 05811-59875 Email: nglt01@vu.edu.pk, sartaja5@yahoo.com

# SKARDU

Modern Solutions for Education Naguli Spang Near Alamdar Chowk, Skardu Campus Code: NSKD01 Phone: 05815-960502 Mobile: 03138484193 Email: nskd01@vu.edu.pk, ashskd@gmail.com

# **KHYBER PAKHTUNKHWA**

# ABBOTABAD

Calypso Systems (PVT) Limited Suit # 01, 1st Floor, Ghakkar Plaza, Near Sethi Mosque, Masehra Road, Abbotabad. Campus Code: NABT03 Phone: 0992-403429, 506260 Mobile: 03335746004 Email: nabt03@vu.edu.pk, abbottabad@calypso.com.pk

### Virtual Campuses

# CHITRAL

Chitral Computer College Near Govt. Girls High School, Muldeh, Chitral. Campus Code: NCHT01 Phone: 0943-413590 Mobile: 03359600001 Email: ncht01@vu.edu.pk, binisic@hotmail.com

# HARIPUR HAZARA

Campus Code: NHPH01 Frontier Education Complex Opp. Noor Surgical Hospital, GT Road, Haripur Hazara. Campus Code: NHPH01 Phone: 0995-615732. 615738 Mobile: 03005631353 Fax: 0995-614441 Email: nhph01@vu.edu.pk, sech ins@yahoo.com

# **KOHAT**

Faran Educational Complex Kohat Faran Edu Complex near FEF Girls College Sangerh Kohat city Campus Code: NKHT01 Phone: 0922-511367 Mobile: 03339638958 **Fax:** 0922-511865 Email: nkht01@vu.edu.pk, info@faranfoundation.org

# MANSEHRA

Paragon International College of Commerce & Computers DAB NO.: 1. Near NBP. Shelia Road. Mansehra Campus Code: NMSR02 Phone: 0997-440008, 200590, 256715, 304121 Mobile: 03005611718 Email: nmsr02@vu.edu.pk, pics mns@yahoo.com

# MARDAN

Baybay Institute of Information Technology Opposite Govt. Degree College for Girls, Swabi Road, Mardan **Campus Code:** NMDN02 **Phone:** 0937-873442, 0937- 873965 **Mobile:** 03018331480 **Fax:** 0937-871988 **Email:** nmdn02@vu.edu.pk, jehzeb@hotmail.com

# MINGORA

Max Tech Computer Institute Khan Plaza, Nishat Chowk, Mingora. **Campus Code:** NMNG01 **Phone:** 0946-700716, 710566, 729716 **Email:** nmng01@vu.edu.pk, munirmtci@yahoo.com

Swat College of Science & Technology Gulbahar Colony, Near Dr.Gyan Clinic, Shahdara Watkay, Mingora, Swat **Campus Code:** NMNG02 **Phone:** 0946-729744, 9240415 **Mobile:** 03419404041 **Fax:** 0946-9240415 **Email:** NMNG02@vu.edu.pk, scstswat@yahoo.com

# **NOWSHERA**

Pakistan Degree College GT Road, Nowshera **Campus Code:** NNWS01 **Phone:** 0923-612333 **Mobile:** 03219732333 **Email:** nnws01@vu.edu.pk, padcis@yahoo.com

# PESHAWAR

National Institute of Design and Analysis, Peshawar. 1st Floor Sarhad Chamber of Commerce & Industry, Peshawar. **Campus Code:** NPSW07 **Phone:** 091-2563932 **Fax:** 091-2563934 **Email:** NPSW07@VU.EDU.PK, nida.pescourses@tusdec.org.pk

# TIMERGARAH

Calypso Systems (pvt) LTD Zeb City Centre, Timergara, District Dir (Lower) Campus Code: NTMG01 Phone: 0945-825584 Email: ntmg01@vu.edu.pk, timergara@calypso.com.pk

# **PUNJAB**

# AHMED PUR EAST

Aiml College Ahmed Pur East Qulandar Colony (backside of Public Stadium), Near Aslam Chowk, Ahmed Pur East **Campus Code:** PAPE01 **Phone:** 062-2273200, 062-2271836 **Mobile:** 03005144761 **Email:** pape01@vu.edu.pk, raees nasir@yahoo.com

# ARIFWALA

Quaid - E - Azam Institute of Management & Computer Science 161/162, 'O' Block, Near General Bus Stand, Opposite Amjad Park, Arif Wala **Campus Code:** PARF02 **Phone:** 0457-834384 **Mobile:** 03076943485 **Email:** parf02@vu.edu.pk,ms\_zia@hotmail.com Smart Silicon Solutions 1st Floor, Liaqat Plaza, Above Servis Mega Store, Thana Bazar, Arifwala **Campus Code:** PARF03 **Phone:** 0457-831111 **Mobile:** 03216537229 **Email:** parf03@vu.edu.pk, info.vu@smartsiliconsol.com

# ATTOCK

Oxford College of Information Technology Opposite IESCO Customer Office Dar UI Islam Colony, Kamra Road, Attock **Campus Code:** PATK01 **Phone:** 057-2613122, 057-2702330 **Mobile:** 03405557736 **Fax:** 057-2602963 **Email:** patk01@vu.edu.pk, patk01@hotmail.com

# BAHAWALPUR

Soft Vision College of IT 9-A, Block-W, Rafi Qammar Road, Satellite Town, Bahawalpur. **Campus Code:** PBWP02 **Phone:** 062-2280240-41 **Mobile:** 03025555308 **Email:** pbwp02@vu.edu.pk, softvision\_bwp@yahoo.com

# BHAKKAR

Pioneer Institute of Technology Near DHQ Hospital, Bhakkar **Campus Code:** PBHK01 **Phone:** 0453-510284 **Mobile:** 03366660284 **Email:** pbhk01@vu.edu.pk, shahidrafique@gmail.com

## Virtual Campuses

The Grace College Model Town, Darya Khan Road, Gadola, Bhakkar **Campus Code:** PBHK03 **Phone:** 0453-514455 **Mobile:** 03336842811 **Fax:** 0453-514455 **Email:** pbhk03@vu.edu.pk, gracebhakkar@yahoo.com

# BUREWALA

Quaid-e-Azam College of Commerce Near Govt. College of Commerce Chungi # 5, 505/EB Road Burewala **Campus Code:** PBRW01 **Phone:** 0673770251, 03218840288 **Mobile:** 03018840288 **Email:** pbrw01@vu.edu.pk, pbrw01@gmail.com

Royal Institute of Management Sciences (RIMS) 5-Gulistan Colony, Behind Passco Office Burewala **Campus Code:** PBRW02 **Phone:** 067-3772212 **Mobile:** 03007592399 **Email:** pbrw02@vu.edu.pk, rimsbrw@gmail.com

# CHAKWAL

Global Institute of Information Technology 4th Floor, Kahoot Plaza, Anwaarabad, Bhoun Road, Chakwal. **Campus Code:** PCKW01 **Phone:** 0543-554949, 550049 **Mobile:** 03350550049 **Fax:** 0543-554949 **Email:** pckw01@vu.edu.pk, pckw01@gmail.com ARQAM Foundation, Chakwal Govt. Girls College Road, near Govt. Girls Elementary School No. 3, Talagang Road, Chakwal **Campus Code:** PCKW02 **Phone:** 0543-551577 **Mobile:** 03468551577 **Email:** pckw02@vu.edu.pk, saedasmat@hotmail.com

# **CHICHAWATNI**

Benazeer Institute of Information Technology Block No. 16, St. No. 01, House No. 2087, near Crescent Girls College, Chichawatni **Campus Code:** PCHW01 **Phone:** 0405-487201 **Mobile:** 03027898049 **Email:** pchw01@vu.edu.pk, biitchichawatni@gmail.com

The National College of Commerce & IT Govt. Girls College Road, Chichawatni **Campus Code:** PCHW02 **Phone:** 040-5487552, **Mobile:** 03336918578 **Email:** pchw02@vu.edu.pk, nccmt786@yahoo.com

# CHINIOT

Pak Poly Technic Institute Sargodha Road, Chiniot. **Campus Code:** PCHT02 **Phone:** 047-6335172 **Mobile:** 03457964591 **Email:** pcht02@vu.edu.pk, pcht02@vu.edu.pk

ICON Colleg of Commerce & IT Opp. Bakhshi Mosque, Near Punjab Bank Kachehry Road, Chiniot Campus Code: PCHT04 Phone: 047-6330073, 6335373, 6336161 Mobile: 03227819152 Email: pcht04@vu.edu.pk, info@iconcollege.edu.pk

# CHISHTIAN

The Leeds College of Commerce & Management Building No. 11, block G-I, Baldia Colony, College Road, Chishtian **Campus Code:** PCHS01 **Phone:** 06325-09090 **Mobile:** 03006986481 **Email:** pchs01@vu.edu.pk, asif\_st@hotmail.com

# CHUNIAN

Chunian Institute of Management Sciences Ilah Abad Road, Near Chungi No.2, Chunian **Campus Code:** PCHN01 **Phone:** 049-4311700 **Mobile:** 03450999950 **Fax:** 049-2570495 **Email:** pchn01@vu.edu.pk, naeembhatti101@gmail.com

# DASKA

Allama Iqbal Institute of Technology Ghalla Mandi, Circular Road, Opp. Tameer Bank/Qaiser Electronics, Daska **Campus Code:** PDSK02 **Phone:** 052-6617108, 0321-5550867 **Mobile:** 03334743333 **Email:** pdsk02@vu.edu.pk, ammad.ghumman@gmail.com

# DEPALPUR

The Professional College Katchehry Chowk, Pakpattan Road, Near Highway Office, Depalpur **Campus Code:** PDPP01 **Phone:** 044-4542393, 4542493 **Mobile:** 03006967460 **Email:** pdpp01@vu.edu.pk, salmaninam4@hotmail.com

# FAISALABAD

National College of IT 343-B, Peoples Colony, Satyana Road, Faisalabad. **Campus Code:** PFSD01 **Phone:** 041-8716139 **Mobile:** 03216681139 **Fax:** 041-8735139 **Email:** pfsd01@vu.edu.pk, ncit@ncit.edu.pk

Oriel College of Information Technology 168-B Gulistan Colony Millat Chowk, Sheikhupura Road, Faisalabad **Campus Code:** PFSD06 **Phone:** 041-8581376, 8783006, 8813724 **Mobile:** 03217606610 **Email:** pfsd06@vu.edu.pk, ce@oriel.edu.pk

# **FATEH JANG**

Kashan Advance IT Education System 2nd Floor, Mumtaz Plaza, Attock Road, Fateh Jang **Campus Code:** PFJN01 **Phone:** 057-2013966, 2212460 **Mobile:** 03315044430 **Email:** PFJN01@vu.edu.pk, vucampus.fatehjang@gmail.com

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## Virtual Campuses

# GOJRA

Jinnah college of Commerce Painsrah Road Gojra **Campus Code:** PGJR01 **Phone:** 046-3513413 **Mobile:** 03346513552 **Fax:** 04651-516556 **Email:** pgjr01@vu.edu.pk, jinnahcollege@hotmail.com

The Future College Opposite Govt. M.C. Primary School, Kot Abdi, Hafeez Park Base Line, Gojra. **Campus Code:** PGJR02 **Phone:** 046-3511788 **Mobile:** 03027239720 **Email:** pgjr02@vu.edu.pk, thefuturecollege@yahoo.com

# **GUJAR KHAN**

Super Wings College of Commerce & Management Ch. Sabir Building, Gulyana More, G.T. Road Gujjar Khan **Campus Code:** PGRK01 **Phone:** 051-3512514, 3513514 **Mobile:** 03005143414 **Email:** pgrk01@vu.edu.pk, s\_igt@hotmail.com

# GUJRANWALA

International Institute for Information Technology DC Road, Gujranwala. **Campus Code:** PGJW03 **Phone:** 055-3856384, 3856963 **Fax:** 055-3856384, **Mobile:** 03214747104 **Email:** pgjw03@vu.edu.pk, iiit\_2000@hotmail.com Mr. Web Solutions CB-15/D, Opp DC Colony Main Gate G.T Road Gujranwala Cantt. **Campus Code:** PGJW04 **Phone:** 055-3828897 **Mobile:** 03318621111 **Email:** pgjw04@vu.edu.pk, gtvboss@yahoo.com

# **GUJRAT**

ETECH College of Business & Information Technology Near Eid Gah Masjid, Main G T Road, Gujrat **Campus Code:** PGJT01 **Phone:** 053-3537570, 3524204, **Mobile:** 0300-6259706 **Email:** pgjt01@vu.edu.pk, cgilani@hotmail.com

ILM College of Commerce, Gujrat. Younas Fans Building, Opposite Small Industries State, Gate No. 2, G.T. Road, Gujrat. **Campus Code:** PGJT04 **Phone:** 053-3516428 **Mobile:** 0333-8406584 **Fax:** 053-3515204 **Email:** pgjt04@vu.edu.pk, pgjt04@vu.edu.pk

# HAFIZABAD

Hafizabad College of Business Management Near Bhoon CNG, Gujranwala Road, Hafizabad. **Campus Code:** PHFZ02 **Phone:** 0547522554 **Mobile:** 03215903492 **Email:** phfz02@vu.edu.pk, hcbm hfd@hotmail.com

# HAROONABAD

NICE INSTITUTE OF COMPUTER EDUCATION Goal Bazar, Near Old Sabzi Mandi, Haroonabad **Campus Code:** PHRD02 **Phone:** 063-2251470 **Mobile:** 0333-6336222 **Email:** phrd02@vu.edu.pk, nicelinkpk@yahoo.com

# HASILPUR

Institute of Professional Studies Mehmood Colony Bahawalnagar Road, Hasilpur. **Campus Code:** PHPR01 **Phone:** 062-2449685 **Mobile:** 0303-7174622 **Email:** phpr01@vu.edu.pk, ipscollege@gmail.com

# JARANWALA

Jaranwala Institute of Modern Sciences & Technology H. NO. 317, Street No. 1/A, Abuzar Colony, Jaranwala. **Campus Code:** PJRW02 **Phone:** 041-4016061, 4311455 **Mobile:** 0332-4562645 **Email:** pjrw02@vu.edu.pk, jimsat.pk@gmail.com

# JHANG

Pioneer Institute of Computer Sciences Yousaf Shah Road,Near Kechehry Chowk, Jhang Sadar **Campus Code:** PJNG01 **Phone:** 047-7612443 **Mobile:** 0334-6331460 **Fax:** 0471-614505 **Email:** pjng01@vu.edu.pk, pjng01.044@gmail.com Rachna College Of Commerce-Jhang Yousaf Shah Road Near Church Jhang Saddar, Jhang **Campus Code:** PJNG03 **Phone:** 047-7652084 **Mobile:** 03006506912 **Email:** pjng03@vu.edu.pk, rachnacollege@yahoo.com

# JOHARABAD

Apex College of Science 2-3/ 54, Block # 20, Civil Lines Opposite Abuhuraira Mosque, Jauharabad. **Campus Code:** . **Phone:** 0454-720966 **Mobile:** 0300-6070966 **Email:** pjrd02@vu.edu.pk, rana saif@msn.com

# **KABIR WALA**

Muslim College of Commerce and Computer Sciences, Kabir Wala. Near New General Bus Stand Kabirwala Distt. Khanewal. **Campus Code:** PKBW01 **Phone:** 065-2411666 **Mobile:** 0333-6221115 **Email:** PKBW01@VU.EDU.PK, razakhan\_mba@yahoo.com

# KAHUTA

Kahuta Institute of Professional Studies, Kahuta. Kahuta Ward No. 1, Opposite Fizan-e-Mustafa Mosque, Kahuta. **Campus Code:** PKHT01 **Phone:** 051-3311200 **Mobile:** 0333-5192210 **Email:** pkht01@vu.edu.pk, kips.college@yahoo.com

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## Virtual Campuses

# KALLAR SYEDAN

Al-Haq Institute of IT & Management Choan Road, Kallar Syedan, Distt.Rawalpindi **Campus Code:** PKSY01 **Phone:** 051-3570231-32 **Mobile:** 03235586084 **Email:** pksy01@vu.edu.pk, ulhaq69@hotmail.com

# KAMOKE

Winware Group of Colleges Nagri Abbas Shah, Near NADRA Office, G.T. Road, Kamoke **Campus Code:** PKMK01 **Phone:** 055-6814411-12 **Mobile:** 0344-2121414 **Email:** pkmk01@vu.edu.pk, ceo@winware.edu.pk

# KAMRA

Falcon Institute for Advanced Study Safdar & Mehran Plaza GT Road PAC Chowk, Kamra. **Campus Code:** PKMR03 **Phone:** 057-2642462-63 **Mobile:** 0315-8880250 **Email:** pkmr03@vu.edu.pk, irshadali9@yahoo.com

# KASUR

Elite College Kasur Main Shehbaz Khan Road, Kasur **Campus Code:** PKSR03 **Phone:** 049-2773324 **Mobile:** 0333-4921824 **Email:** pksr03@vu.edu.pk, elite.college@hotmail.com

# **KHANEWAL**

Leads Universal College 1-B, Civil Lines, Khanewal. **Campus Code:** PKHW02 **Phone:** 065-2555449 **Mobile:** 0344-7363473 **Email:** pkhw02@vu.edu.pk, leads\_pk1@yahoo.com

# **KHANPUR**

Al-Barkat College of Computer Sciences Near Doaaba Pully, Quaid-e-Millat Road, Khanpur. **Campus Code:** PKHP01 **Phone:** 068-5573896 **Mobile:** 0300-6704319 **Email:** pkhp01@vu.edu.pk, bccs1@hotmail.com

# **KHARIAN**

Rosebelt College of Management Sciences & Information Technology GT Road, Kharian. **Campus Code:** PKHN03 **Phone:** 053-7600121 **Mobile:** 0331-6296300 **Email:** pkhn03@vu.edu.pk, rosebeltcolleges@gmail.com

# **KUNDIAN**

College of Intellectual Novitiates (COIN) Near Al-Masoom Hotel, M.I. Road, Kundian, Post Office Kundian, Tehsil Piplan, District Mianwali **Campus Code:** PKUD01 **Phone:** 0459-241410 **Mobile:** 0333-6185704 **Email:** pkud01@vu.edu.pk, syedqaswar@gmail.com

# LAHORE

Bedian Institute of Business and IT Studies 202 E-1, Defence Road, Bhatta Chowk, Lahore. **Campus Code:** PBAD01 **Phone:** 042-35740546, 35016905 **Mobile:** 03004240050 **Email:** pbad01@vu.edu.pk, bdnbibits@gmail.com

Apex Institute for Higher Education Punj Peer Stop, Near Wapda Grid Station, Lalpul, Lahore. **Campus Code:** PHRB01 **Phone:** 0423-6524826, 36524825 **Mobile:** 03214047264 **Email:** phrb01@vu.edu.pk

Pak Polytechnic Institute 32-Civic Centre, Moon Market, Allama Iqbal Town, Lahore. **Campus Code:** PLHR02 **Phone:** 042-37808025, 37808016, 37808022 **Mobile:** 0331-4403545 **Fax:** 042-37847712 **Email:** plhr02@vu.edu.pk, info@pimcs.edu.pk

Prime ICS 96-E, Allama Iqbal Road, Garhi Shahu, Lahore. **Campus Code:** PLHR03 **Phone:** 042-6304537, 6362579 **Email:** plhr03@vu.edu.pk, primeics@yahoo.com Jinnah Memorial College of Information Technology 1-Poonch Road, Chouburgi Chowk, Lahore. **Campus Code:** PLHR14 **Phone:** 042-35244784, 35244761 **Mobile:** 03222220363 **Fax:** 042-37535522 **Email:** plhr14@vu.edu.pk

Abbas Institute of Modern Studies (AIMS) 13-B, Lake Road (Near Jain Mandar), Opposite University Ground, Lahore **Campus Code:** PLHR25 **Phone:** 042-35092899, 37236107 **Mobile:** 0333-4931227 **Fax:** 042-7124943 **Email:** plhr25@vu.edu.pk

Kaizen Institute for Higher Education 1st Floor Adjacent Angoori Cinema Shalimar Link Road, Moghalpura Lahore. **Campus Code:** PLHR39 **Phone:** 042-6831098, 6851619, 6114305-6 **Mobile:** 0345-7383546 **Fax:** 042-6366809 **Email:** plhr39@vu.edu.pk, tonyansar@yahoo.com

Lahore Institute of Business & IT studies Opp Royal Arcade Mobile Plaza Main Ferozpur Road, Qanchi Ammar Sadhu, Lahore. **Campus Code:** PLHR43 **Phone:** 042-35820123 **Mobile:** 03036880082 **Email:** plhr43@vu.edu.pk, libis.org@gmail.com Royal Institute of Management Sciences 303-A1, Near Nursery Stop, Town Ship, Lahore. **Campus Code:** PLHR45 **Phone:** 042-35120088 **Mobile:** 0313-4245115 **Fax:** 042-5150192 **Email:** plhr45@vu.edu.pk, faddi1764@hotmail.com

TIPS Institute of IT 3-H1, Wapda Town, Lahore **Campus Code:** PLHR46 **Phone:** 042-37036698, 35224538 **Mobile:** 0322-4719851 **Email:** plhr46@vu.edu.pk, tips.college@yahoo.com

The Times College 798-N Samanabad Poonch Road, Lahore **Campus Code:** PLHR47 **Phone:** 0423-7577751, 0423-7521383 **Mobile:** 0333-4245350 **Email:** plhr47@vu.edu.pk, timescollege@yahoo.com

Seek School Systems 236 Allama Iqbal Road, Mustafaabad (Dharampura), Lahore. **Campus Code:** PLHR49 **Phone:** 042-37173807 **Mobile:** 0321-4904721 **Email:** plhr49@vu.edu.pk, khizar.seek@yahoo.com New Kashmir College 313-E-III, G.T. Road, Shalimar Town, Pakistan Mint Last stop, Lahore Campus Code: PLHR50 Phone: 042-6551300. Mobile: 0333-4224660 Fax: 042-6551300 Email: plhr50@vu.edu.pk, nkics@hotmail.com

Shadbagh Virtual Resource Center (SVRC) New Plaza, 2nd floor, Main Shadbagh Road, Opposite Total Petrol Pump, Shadbagh, Lahore. Campus Code: PLHR55 Phone: 042-37281100 Mobile: 03133240324 Email: plhr55@vu.edu.pk, shadbaghvrc@gmail.com

Institute of Emerging Sciences First Floor E/197, Main Walton Road, Lahore Cantt. Campus Code: PLHR59 Phone: 042-36612910 Mobile: 0323-8993393 Fax: 042-36612910 Email: plhr59@vu.edu.pk, ies.emerging@gmail.com

EXCL College S.S. Center, Raiwind Road, near Thoker Niaz Baig opposite Butt sweets, Lahore Campus Code: PLHR60 Phone: 042-35963115-16 Mobile: 0305-4404995 Email: plhr60@vu.edu.pk, exclcollege@hotmail.com

Shine Institute of Management Studies Tayyaba Tower, Near Allied Bank, G.T. Road, Shahdara, Lahore, Campus Code: PSDR02 Phone: 0423-7941099 Mobile: 03214661106 **Fax:** 0423-7941100 Email: psdr02@vu.edu.pk, ceo shine@yahoo.com

Micro Inn Technologies 65- Main G.T. Road, Kot Shahab Din, (Opposite Boys Degree College), Shahdara, Lahore Campus Code: PSDR03 Phone: 042-37921827, 37941827 Mobile: 0333-1210893 Email: psdr03@vu.edu.pk, microinnchief@yahoo.com

# LAYYAH

Institute of Commerce & Business Administration Near Lawyer Colony, Bypass Road Layyah Campus Code: PLYH03 Phone: 0606-412116 Mobile: 03336201972 Email: plyh03@vu.edu.pk, principalicba@gmail.com

# LIAQUATPUR

The Noor College of Management Science Veterinary Hospital Road, Behind Govt. Girls College, Opp. Goal Masjid, Liagat Pur. Campus Code: PLQT01 Phone: 0685-792113 Mobile: 0300-8320984 Fax: 068-5792289 Email: plqt01@vu.edu.pk, muzafarsohail@gmail.com

# LODHRAN

IPS (Institute of Professional Studies), Lodhran Gulshan-e-Madina Town, Bahawalpur Road, Behind Fuel Mart CNG, Lodhran Campus Code: PLDH01 Phone: 0608-361086 Mobile: 0303-7174621 Fax: 061-6781053 Email: pldh01@vu.edu.pk, ipscollege@gmail.com

# MAILSI

Intellectual Prestigious Science Computer College Boys College Road, off Multan Road, Mailsi. Campus Code: PMLS01 **Phone:** 067-3600072 Mobile: 03007729685 Email: pmls01@vu.edu.pk, ipscollege@gmail.com

# MAKHDUM PUR PAHORAN

Khanewal Knowledge Centre Makhdum Pur Pahoran Distt. Khanewal Campus Code: PMPP01 Phone: 0652-650666 Mobile: 03008481124 Email: pmpp01@vu.edu.pk, knowledgesharing@gmail.com

# MANDI BAHAUDDIN

Mandi Bahauddin Institute of Information Technology Near Total Petroleum Phalia Road, Mandi Bahauddin Campus Code: PMBD01 Phone: 0546-506093, 451123, 7753441 Mobile: 0321-7753441 Fax: 0546-508100 Email: pmbd01@vu.edu.pk

### Virtual Campuses

# MIAN CHANNU

Pakistan Institute of Emerging Sciences House # 2, St# 3, Ilm-ud-Din Colony, Tulamba Road, Mian Channu. Campus Code: PMCH01 Phone: 065-2663090, 2664390 Mobile: 03007374896 Email: pmch01@vu.edu.pk, pies mch@yahoo.com

# MIANWALI

British International College of Computer Engineering Sultan Town, Near South Railway Crossing, Mianwali Campus Code: PMNW01 Phone: 0459- 231257 Mobile: 0321-6830629 Email: pmnw01@vu.edu.pk

# MULTAN

The National College (NCCS) 858-D. Bosan Road. Multan. Campus Code: PMTN05 Phone: 061-6221748-9 Mobile: 0312-6480708 Fax: 061-6521748 Email: pmtn05@vu.edu.pk, nccsmul@vahoo.com

Chenab College of Commerce Near Chungi No 9 Opposite Food Street LMQ Road. Multan Campus Code: PMTN07 Phone: 061-4030400 Mobile: 0300-8731830 Fax: 061-4570200 Email: pmtn07@vu.edu.pk, info@chenabcollege.edu.pk

# MURIDKE

Winware Institute of Computer Sciences Behind Mujahid Hotel, G.T. Road Muridke. **Campus Code:** PMDK01 **Phone:** 042-37950777 **Mobile:** 0344-4141143 **Email:** pmdk01@vu.edu.pk, khurshidanjum@yahoo.com

# NAROWAL

Centre for Business & Information Technology Miran Shah Hussain, Opposit Masjid Minhajul Quran, Circular road Narowal **Campus Code:** PNWL01 **Phone:** 0542-412446, 411446 **Mobile:** 0321-4709046 **Email:** pnwl01@vu.edu.pk, cbitnarowal@gmail.com

The College of Law 1-KM, Kanjror Road, Narowal **Campus Code:** PNWL02 **Phone:** 0542-603222, 414515 **Mobile:** 0343-2124444 **Email:** pnwl02@vu.edu.pk, qadrimt@gmail.com, thecollegeoflaw.helms@gmail.com

# **OKARA**

National Institute of Management & Computer Sciences Main Lalazar Colony, Near Agricultural Bank, Okara. **Campus Code:** POKR01 **Phone:** 044-2526285 **Mobile:** 0300-6954844 **Email:** pokr01@vu.edu.pk, swlnimics@hotmail.com Gillani Educational Complex Al-Madina Plaza near Bismillah Petrol Pump Faisalabad Road, Okara **Campus Code:** POKR01 **Phone:** 044 2702760 **Mobile:** 0344-2722227 **Email:** pokr02@vu.edu.pk, royjelani@gmail.com

# PAKPATTAN

Allama Iqbal Institute of Management Sciences Street Karkhana Khursheed near Dar-ul-Aman College Road, Pakpattan Sharif, Pakpattan **Campus Code:** PPKT01 **Phone:** 0457-374968 **Mobile:** 0300-6942968 **Email:** ppkt01@vu.edu.pk, aimsvu@yahoo.com

# PHALIA

Noor College of Information Technology Near Masjid Farooq-e-Azam, Mandi Bahauddin Road, Phalia **Campus Code:** PPLA01 **Phone:** 0546-587735 **Mobile:** 0333-8035584 **Email:** ppla01@vu.edu.pk

# **PINDI GHAIP**

Center of Advance Studies Near Raja CNG Attock Road, Nayyab Plaza Pindi Ghaip **Campus Code:** NPGB01 **Phone:** 057-2350700 **Mobile:** 03015254582 **Email:** npgb01@vu.edu.pk, janjuacomputers@gmail.com

# PIRMAHAL

The National College Rajana Road, Near ghousia chowk,Tehsil Kamalia, Pir Mahal. **Campus Code:** PPML01 **Phone:** 046-3366733 **Mobile:** 0300-9666024 **Fax:** 046-3366733 **Email:** ppml01@vu.edu.pk, nauman\_tts@yahoo.com

# **RAHIM YAR KHAN**

Aligarh College 44-A, Satellite Town, Rahim Yar Khan **Campus Code:** PRYK01 **Phone:** 068-5878492, 5870583 **Mobile:** 0300-9673467 **Email:** pryk01@vu.edu.pk, aligarhcollege@yahoo.com

# NICAAS College

37-A, Satellite Town, Rahim Yar Khan Campus Code: PRYK03 Phone: 068-5884191 Mobile: 0333-7447991 Fax: 068-5870193 Email: pryk03@vu.edu.pk, nicas@yahoo.com

# RAIWIND

Japan Polytechnic Institute 1-KM Bypass Chowk, Manga Road, Raiwind **Campus Code:** PRWD02 **Phone:** 042 35391515 **Mobile:** 0333-4426400 **Email:** prwd02@vu.edu.pk, yasar.abdullah@gmail.com

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# Virtual Campuses

# RAWALPINDI

IITM (Institute of IT & Management) 40/3 Jahanzeb Center, Bank Road, Saddar, Rawalpindi. **Campus Code:** PRWP07 **Phone:** 051-5519327, 5519399 **Mobile:** 0345-5333009 **Fax:** 051-5524435 **Email:** prwp07@vu.edu.pk, info@iitm.edu.pk

National Institute of Computer Sciences Bilal Plaza, Haider Road, Saddar, Rawalpindi. **Campus Code:** PRWP10 **Phone:** 051-5565313, 5512508 **Fax:** 051-5512508 **Email:** prwp10@vu.edu.pk, info@nics.edu.pk

# **RENALA KHURD**

Pakistan College of Commerce H# 31/B, Low Income Housing Scheme, Renala Khurd, Dist. Okara. **Campus Code:** PRKD01 **Phone:** 044-2622226 **Mobile:** 03004312963 **Email:** prkd01@vu.edu.pk, mahad\_naeem11@yahoo.com

# SADIQABAD

Microsolutions Old RCA Factory Area, Alfalah Town, Sadiqabad **Campus Code:** PSDQ01 **Phone:** 068-5703385 **Mobile:** 0314-6776933 **Fax:** 068-5703386 **Email:** psdq01@vu.edu.pk, info@microsolutions.edu.pk Aligarh College of Commerce & Computer Sciences Canal Bank, Akbar Town, Sadiqabad. **Campus Code:** PSDQ02 **Phone:** 068-5702421 **Mobile:** 0344-4333301 **Email:** psdq02@vu.edu.pk, hamoud3k@yahoo.com

The Innovators Institute of Higher Education SICS, Rais Enam Ullah Road, Alfalah Town, District Rahim Yar Khan, Sadiqabad, **Campus Code:** PSDQ03 **Phone:** 068-5705999 **Mobile:** 0333-7129008 **Fax:** 0300-7821073 **Email:** psdq03@vu.edu.pk, marpasha@yahoo.com

# SAMUNDRI

Institute of E-Learning & Modern Studies (IEMS) VU Stop, Faisalabad Road, Housing Colony No.1, Samundri **Campus Code:** PSMD01 **Phone:** 041-3425000, 3425111 **Mobile:** 03007236471 **Fax:** 041-3426000 **Email:** psmd01@vu.edu.pk, info@iems.edu.pk

# SANGLA HILL

Al-Azeem Institute of Modern Studies Mohalla Sharif Pura Eid Gah Road Near Hussain Trust Hospital Sangla Hill **Campus Code:** PSNH01 **Phone:** 056-37800080 **Mobile:** 03227753072 **Email:** psnh01@vu.edu.pk, azskeepsmile@gmail.com

# SARGODHA

Logix College of Information Technology & Business Studies Club Road, Shama Chowk, Opp: Passport Office, Sargodha. **Campus Code:** PSGD01 **Phone:** 048-3220901, 3220903 **Mobile:** 0312-6026000 **Email:** psgd01@vu.edu.pk, director logix@yahoo.com

HI Aims College of Commerce & Management 49-A Sattelite Town, Sargodha **Campus Code:** PSGD03 **Phone:** 048-3214773 **Mobile:** 0300-4509095 **Fax:** 048-3220773 **Email:** psgd03@vu.edu.pk, hiaims33@yahoo.com

# SHEIKHUPURA

Micro Inn Technologies 16-Shami Road, Civil Lines, Sheikhupura. **Campus Code:** PSKP01 **Phone:** 056-3613999, 3614999 **Mobile:** 0321-9468398 **Email:** pskp01@vu.edu.pk, microinnchief@yahoo.com

# SHORKOT CITY

Bahoo College of Emerging Sciences Civil Lines Tehsil chowk Multan Road, Shortkot City Distt. Jhang **Campus Code:** PSRT01 **Phone:** 047-5311800 **Mobile:** 03007615365 **Email:** PSRT01@vu.edu.pk, ishaqawan@gmail.com

# SIALKOT

Computer Connection Institute Green Wood Street, (next to Habib Bank City Branch), Railway Road, Sialkot. **Campus Code:** PSKT01 **Phone:** 052-4598908-09-10 **Mobile:** 0345-2882759 **Fax:** 052-4598910 **Email:** pskt01@vu.edu.pk, compak@cyber.net.pk

# TALAGANG

College of Leadership & Management Chowk Sadeeqabad behind Sunny Market, Talagang. **Campus Code:** PTLG01 **Phone:** 0543-286666 **Mobile:** 0333-5920259 **Email:** ptlg01@vu.edu.pk, umarmalik.128@gmail.com

# **TAUNSA SHARIF**

Sir Syed Institute of Information & Management Opposite Masjid Zun-Nurain, College Road District D.G. Khan, Taunsa Sharif. **Campus Code:** PTNS01 **Phone:** 064-2602277 **Mobile:** 0333-9993673 **Email:** ptns01@vu.edu.pk, siims.taunsa@gmail.com

# **TOBA TEK SINGH**

The National College Qaim Center, Shorkot Road, Toba Tek Singh. **Campus Code:** PTTS01 **Phone:** 046-2516347, 0462-511547 **Mobile:** 0300-6568592 **Fax:** 0462-515132 **Email:** ptts01@vu.edu.pk, pvcptts01@gmail.com The CITI College 1st Floor, Habib Bank, Main Branch, Toba Tek Singh **Campus Code:** PTTS02 **Phone:** 046-2516455 **Mobile:** 0334-6262147 **Email:** ptts02@vu.edu.pk, the\_citi\_college@yahoo.com

# VEHARI

Institute of Technology & Arts (Formerly,Information Technology Academy) 21-H Jinnah Road, Vehari. **Campus Code:** PVHR01 **Phone:** 067-3365997, 3365999 **Mobile:** 0333-6262699 **Email:** pvhr01@vu.edu.pk, khalid.munir.ch@gmail.com

# WAH CANTT

Kenshu Institute of VU Last Floor, Al- behbood Plaza, Quide Avenue, The Mall, Wah Cantt **Campus Code:** PWCT01 **Phone:** 051-4902027, 4902037 **Mobile:** 0331-4546200 **Fax:** 051-4902100 **Email:** pwct01@vu.edu.pk, ateeq\_71@yahoo.com

# WAZIRABAD

Wazirabad Institute of Future & Technology Opposite Punjab College G.T Road Wazirabad **Campus Code:** PWRD02 **Phone:** 0556-605799 **Mobile:** 03004991117 **Email:** pwrd02@vu.edu.pk, wift.university@gmail.com

# SINDH

KARACHI

E-Cube B-02, Mehran Square, Chaudhary Khaliq-ue-Zaman Road, Clifton, Karachi. **Campus Code:** SKHI13 **Phone:** 021-5655695-7 **Fax:** 021-5655698 **Email:** skhi13@vu.edu.pk, ecube@cyber.net.pk

Mehran Girls Degree College (Only For Girls) C-116, Block # 6, Federal B. Area, Aysha Manzil, Karachi **Campus Code:** SKHI34 **Phone:** 021-6344924 **Email:** skhi34@vu.edu.pk, mgdc116@yahoo.com

# **Onwire Education**

2nd Floor, Shaes Center SB-25, Block 13-C, Gulshan-e-Iqbal, Above Faysal Bank, Main University Road, Gulshan-e-Iqbal, Karachi. **Campus Code:** SKHI37 **Phone:** 021-34802354-55 **Mobile:** 0336-6669473 **Fax:** 021-4830190 **Email:** skhi37@vu.edu.pk, info@onwire.pk

# LARKANA

Classic Academy of Computer Science 1st Floor, Nizamani Labour Hall, GPO, Larkana **Campus Code:** SLRK02 **Phone:** 074-4043334 **Mobile:** 0336-2730732 **Email:** slrk02@vu.edu.pk, roshan\_lrk@yahoo.com

# **MIRPUR KHAS**

Quaid Institute of Management Science A-383 New Town Near Post Office Chowk Mirpur Khas **Campus Code:** SMPK02 **Phone:** 0233-874989, 0335-3717098 **Mobile:** 03332983753 **Email:** smpk02@vu.edu.pk, saggi noor@yahoo.com

# SANGHAR

Sky Tech Computer College H # A-60/1 Housing Society, Sanghar Campus Code: SSGR01 Phone: 0235-543510 Mobile: 03342922555 Fax: 0235-407051 Email: ssgr01@vu.edu.pk, st ccs@hotmail.com, stccs2000@yahoo.com

Note: List compiled on 13-07-2016

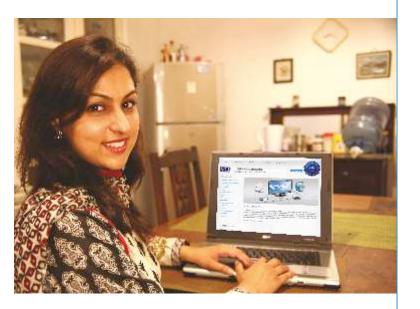
# **TO FIND YOUR NEAREST CAMPUS**





# Study at Home

The Virtual University of Pakistan using its state of the art Information & Communication Technologies (ICT) infrastructure has made it possible to open its doors for the students who do not intend to visit a campus and wish to remain at home during their studies. This particular feature has proved to very useful for females and working professionals who cannot spare time to attend any campus for studies on regular basis. Such students are just required to have computer and Internet access at their homes and they will be connected to the University's Learning Management System (VULMS). This particular option is known as "study at home". The students enrolled under this category/ option will be at liberty to join any campus at any time. The process is easy and can be initiated simply be submitting an on-line request to the University through "Campus Change" option available under the tab "Student Services" within their VULMS.



# Note:

- Students will be required to follow Virtual University Students Rules & Regulations.
- There is no change in the tuition fee and other charges.
- Examinations will be conducted at VU designated exam centers.
- Students' status i.e. "At Home"/ "At Campus"/ "Overseas" will not display on the transcripts.



# **Questions and Queries** 影響

**Contact information for Admission:** 

| Study Program                    | vu.edu.pk                                | 042-<br>111 880 880<br>(Ext.) | 0304<br>111 0880<br>(Ext.) |
|----------------------------------|--|-------------------------------|----------------------------|
| Ph.D Program                     |  |                               |                            |
| PhD Biotechnology                | phdbiotechnologyadmissions@vu.edu.pk     | 343                           | 3430                       |
| MS/ M.Phil Programs              |  |                               |                            |
| M.Phil Education                 | mphileducationadmissions@vu.edu.pk       | 344                           | 3440                       |
| MBA (Equivalent to MS)           | msbaadmissions@vu.edu.pk                 | 344                           | 3440                       |
| MS Bioinformatics                | msbioinformaticsadmissions@vu.edu.pk     | 343                           | 3430                       |
| MS Biotechnology                 | msbiotechnologyadmissions@vu.edu.pk      | 343                           | 3430                       |
| MS Business Administration       | msbaadmissions@vu.edu.pk                 | 344                           | 3440                       |
| MS Computer Science              | mscsadmissions@vu.edu.pk                 | 348                           | 3480                       |
| MS Genetics                      | msgeneticsadmissions@vu.edu.pk           | 343                           | 3430                       |
| MS Zoology                       | mszoologyadmissions@vu.edu.pk            | 343                           | 3430                       |
| MS Molecular Biology             | msmolecularbiologyadmissions@vu.edu.pk   | 343                           | 3430                       |
| MS Mathematics                   | msmathematicsadmissions@vu.edu.pk        | 348                           | 3480                       |
| Master Programs                  |  |                               |                            |
| M.Sc. Zoology                    | msczoologyadmissions@vu.edu.pk           | 343                           | 3430                       |
| M.Sc. Applied Psychology         | mscpsychologyadmissions@vu.edu.pk        | 343                           | 3430                       |
| M.Sc. Mass Communication         | mscmasscommunicationadmissions@vu.edu.pk | 442                           | 4420                       |
| M.Sc. Organizational Psychology  | mscpsychologyadmissions@vu.edu.pk        | 343                           | 3430                       |
| Master of Accounting             | maccountingadmissions@vu.edu.pk          | 442                           | 4420                       |
| Master of Accounting & Finance   | maccounting.financeadmissions@vu.edu.pk  | 442                           | 4420                       |
| Master of Banking & Finance      | mbanking.financeadmissions@vu.edu.pk     | 442                           | 4420                       |
| Master of Business Economics     | mbeconadmissions@vu.edu.pk               | 442                           | 4420                       |
| Master of Business Studies       | mbsadmissions@vu.edu.pk                  | 344                           | 3440                       |
| Master of Commerce (M.Com)       | mcomadmissions@vu.edu.pk                 | 442                           | 4420                       |
| Master of Computer Science (MCS) | mcsadmissions@vu.edu.pk                  | 348                           | 3480                       |
| Master of Finance                | mfinanceadmissions@vu.edu.pk             | 442                           | 4420                       |
| MHRM                             | mhrmadmissions@vu.edu.pk                 | 442                           | 4420                       |
| MIT                              | mitadmissions@vu.edu.pk                  | 348                           | 3480                       |

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# **Questions and Queries**

| Study Program                      | vu.edu.pk                           | 042-<br>111 880 880<br>(Ext.) | 0304<br>111 0880<br>(Ext.) |
|------------------------------------|-------------------------------------|-------------------------------|----------------------------|
| Master of Operations & SCM         | moscmadmissions@vu.edu.pk           | 442                           | 4420                       |
| MPA                                | mpaadmissions@vu.edu.pk             | 344                           | 3440                       |
| MBA-Executive                      | mbaadmissions@vu.edu.pk             | 344                           | 3440                       |
| Bachelors Programs                 |                                     |                               |                            |
| Associate Degree Programs          | associatedegreeadmissions@vu.edu.pk | 346                           | 3460                       |
| Bachelor(2-year & 4-year)          | bacheloradmissions@vu.edu.pk        | 346                           | 3460                       |
| PGD Programs                       |                                     |                               |                            |
| Post Graduate Diplomas             | diplomaadmissions@vu.edu.pk         | 441                           | 4430                       |
| Specializations/ Certificates      |                                     |                               |                            |
| Specialization Certificate         | specializationcertificate@vu.edu.pk | 443                           | 4430                       |
| Certificate Courses                | certificateadmissions@vu.edu.pk     | 443                           | 4430                       |
| Deficiency & Zero Semesters        |                                     |                               |                            |
| Deficiency Semester(s)             | deficiencysemester@vu.edu.pk        | 441                           | 4430                       |
| Zero Semester                      | zerosemester@vu.edu.pk              | 441                           | 4430                       |
| Other Services                     |                                     |                               |                            |
| Admission Cancellation             | admissioncancellation@vu.edu.pk     | 344                           | 3440                       |
| Re-admission/to Continue studies   | readmission@vu.edu.pk               | 342                           | 3420                       |
| Credit Transfer/ Course Exemptions | courseexemptions@vu.edu.pk          | 342                           | 3420                       |



prospectus\_feedback@vu.edu.pk

# Why VU

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- ✓ 24/7 access to learning resources
- ✓ Flexibility in:
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  - Fee submission

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Uniform quality of education regardless of location