

### **ACADEMIC AMBIENCE AT CVRU**

# Faculty of Engineering and Technology

With the approval of AICTE, Dr. C.V. Raman Institute of Science and Technology has been established under the Faculty of Engineering and Technology. The well-renowned engineering faculty offers degrees (B.E. and M.Tech) in numerous fields like Information Technology, Electronics & Communication, Electrical & Electronics, etc. The teaching methodology includes lectures, discussions, course assignments, practical tutorials, industrial trainings and project assignments.





# Department of Engineering (a) Computer Science and Engineering

One of the oldest departments of engineering in CVRU, the department of Computer Science and Engineering was established in 2007 and constitutes units of the faculty of Computer Science. Its objective is to produce IT professionals of international standards and to primarily fulfill requirements of a flourishing IT industry as well as produce researchers. The department offers diploma, B.E., M.Tech. and research programmes. With the idea to provide world class academic standard to the students, CVRU has signed MOU with IIT Bombay for Spoken Tutorial (Initiative of IIT Bombay and MHRD, Govt. of India).







#### High-Tech Labs

The department of Computer Science and Engineering has four Computer Labs equipped with the latest and upgraded High-Tech software fulfilling the International Quality standard. Major Laboratories are: Advanced DMBS Lab, Software Project Management Lab, UML based Object Oriented Modeling and Design Lab, Artificial Intelligence Lab/Web Technology Lab, Language Lab, Programming Lab for C, C++, Java, PHP and Visual Basic.NET.

#### (c) EE/EEE

Established in 2007 and 2013, EEE and EE have been engaged in several activities at institute level for success of B.E. & M.Tech. (PSE) programmes and diplomas (EE).

#### Engineering Cutting Edge Labs

The students have access to every facility and well equipped following labs:

(e) Electronics & Communication Engineering

With the objective to impart quality

education in the field of ECE, ECE branch

was established in 2007. It offers a 4-year

undergraduate programme for B.E. (ECE)

and a 2-year postgraduate course in

M.Tech in DC & VLSI. Presently, the

department has eight labs equipped with

instrumentation to impart the practical

skills to the students.

- Structure and Construction Engineering lab
  - AutoCAD lab
  - Soil Mechanics lab
  - Hydraulics and Fluid Machinery lab
    - Building Materials lab
    - Concrete and Highway lab
    - Survey lab
  - Environmental Engineering lab
     e-Lab

#### (b) Civil Engineering

Civil Engineering branch was established in 2010. The students take up a common core (Civil Engineering) followed by specialization in fields like Geotechnical, Structural and Building Construction Engineering, etc.

#### (d) Mechanical Engineering

Mechanical Engineering branch was established in 2007 and offers diploma in Mechanical Engineering, undergraduate programme in Mechanical Engineering (B.E.) and postgraduate programme (M. Tech.) in Production Engineering. With an intake of 60 students for Diploma, 120 students for undergraduate and 24 students for postgraduate programme, it is one of the largest departments of Dr. C.V. Raman University. The department further offers a Ph.D. programme in various area of Mechanical Engineering.

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### **Programmes Offered: Faculty of Engineering and Technology**

#### Bachelor of Engineering (B.E.)

S. No.	Name	Duration	Eligibility
1	Electronics & Communication Engineering (ECE)	4 years	10+2 (PCM) with PET
2	Computer Science Engineering (CSE)	4 years	10+2 (PCM) with PET
3	Electrical & Electronics Engineering (EEE)	4 years	10+2 (PCM) with PET
4	Mechanical Engineering	4 years	10+2 (PCM) with PET
5	Civil Engineering	4 years	10+2 (PCM) with PET
6	Electrical Engineering (EE)	4 years	10+2 (PCM) with PET

This degree (B.E.) provides you with skills to harness modern technologies in the workplace, helping you to become a key figure in driving change, raising standards and streamlining operations in any organization.

#### Master of Technology (M.Tech.)

S. No.	Name	Duration	Eligibility
1	Power System	2 years	B.E./B.Tech>=55% agg. Or equivalent in final exam with GATE Qualified
2	Digital Communication	2 years	B.E./B.Tech>=55% agg. Or equivalent in final exam with GATE Qualified
3	Computer Science Engineering	2 years	B.E./B.Tech>=55% agg. Or equivalent in final exam with GATE Qualified
4	Software Engineering	2 years	B.E./B.Tech>=55% agg. Or equivalent in final exam with GATE Qualified
5	Production Engineering	2 years	B.E./B.Tech>=55% agg. Or equivalent in final exam with GATE Qualified
6	VLSI	2 years	B.E./B.Tech>=55% agg. Or equivalent in final exam with GATE Qualified

GATE score is compulsory for full time course applicants (not for part time and sponsored full time/part time candidates). The sponsored candidates must have at least 2 years experience in the relevant field after passing the qualifying examination.

#### Polytechnic/Diploma

S. No.	Name	Duration	Eligibility
1	Civil Engineering	3 years	10th pass with PPT
2	Mechanical Engineering	3 years	10th pass with PPT
3	Computer Science Engineering	3 years	10th pass with PPT
4	Electrical Engineering	3 years	10th pass with PPT

### **Faculty of Science**

#### Department of Physics

Established in 2011, the department of Physics is the backbone of CVRU Chhattisgarh. The department offers courses in B.Sc., M.Sc., M.Phil. and Ph.D. programmes, M.Sc. with special papers and Ph.D. The department works mostly in the field of Microwave Remote Sensing, 11 Optical Properties of Solids, Dielectric Materials, Sensors, IOTs, etc. Physical interpretation and experimental application are an integral part of the teaching methodology followed in the department. The faculty members are a part of various organizational bodies viz: IAPT, ISTE, IAPS, LSI, ASI, BARC, ISTAM, PSSI, ISRS, ISMAMS, etc.

#### Department of Chemistry

As one of the largest and diverse disciplines in science, Chemistry is the study and application of chemicals for development such as Medicines, Agro Chemicals, Industrial Chemicals, Green Chemistry, Environmental Protection, Nano Chemistry, Food Processing and Packaging Industry, Pharmaceutical Chemistry, Manufacturing Unit, etc. The basic science covers all core contents of physical chemistry, organic chemistry, inorganic chemistry and environmental chemistry. The students can choose from elective subjects, the courses that they like in the post graduation for specialization. Necessary arrangements are made for final year students to gain industrial experience and get involved in projects and internships.







#### **Department of Mathematics**

Established in 2006, the department of Mathematics caters to multiple programmes of higher education in mathematics and promotes research. The department offers Mathematical courses in B.Sc., M.Sc., M.Phil. and Ph.D. The Department of mathematics publishes research articles with high impact factor in various reputed National & International journal with high impact factor.



## Department of Life Science (a) Botany

Under the department of Life Science the Botany branch offers 3-year undergraduate programmes for B.Sc. (Biology/ Microbiology/ Biotechnology) and B.Sc. (Hons.). The department also offers 2-year postgraduate programmes for M.Sc. in Botany. Apart from this, the Botany branch offers research programmes for M.Phil. and Ph.D. aspirants. The department of Botany is supported by a team of faculty members who commit themselves to the highest standards both in academics and in research in the field Botany.



## Department of Life Science (b) Zoology

Under the department of Life Science the Zoology branch offers 3-year undergraduate programmes for B.Sc. (Biology) also offers 2-year postgraduate programmes for M.Sc. in Zoology. Apart from this, the Zoology branch offers research programmes for M.Phil. and Ph.D. aspirants. The department has separate UG and PG labs and also a research lab for the research scholars pursuing research in the field of Zoology.



# Department of Life Science (c) Microbiology

Microbiology offers 3-year undergraduate programmes for B.Sc. (Microbiology). The depart ment also offers 2-year postgraduate programmes for M.Sc. in Microbiology. Apart from this, the department offers research programmes for M.Phil. and Ph.D. aspirants. The department is having the advanced instrumentation facility consisting of sophisticated equipment like Autoclave, Laminar Air Flow, BOD Incubator, Shaker Incubator, Trinocular Microscope, etc.



# Department of Life Science (d) Biotechnology

Biotechnology offers 3- year undergraduate programmes for B.Sc. (Biotechnology). The depart mentals of fers 2-year postgraduate programmes for M.Sc. in Biotechnology. Apart from this, the department offers research programmes for M.Phil. and Ph.D. aspirants. The department is having the advanced instrumentation facility consisting of sophisticated equipments like PCR Thermal Cycler, Gel Doc System, Deep Freeze, Laminar Air Flow, BOD Incubator, HPLC, Trinocular Microscope, etc.



The department of Rural Technology was established in the year 2018, with an aim to carry out teaching and research activities for overall development of the rural areas. The other objectives of the course are to present a holistic view of all parameters leading to the rural development with respect to the appropriate technology, i.e., socio-economic upliftment through integrated technology. It is expected to benefit those who are young entrepreneurs in rural areas aspiring to participate in developmental activities for self-employment. Presently, the department runs professional and job oriented Master's Degree course related to Rural Technology approved by the University Grants Commission, New Delhi. The primary motive behind running this course is to facilitate appropriate development of science and need-based technology for

rural areas. The course is open to students with at least Bachelor's (or equivalent) Degree in any science discipline like Rural Technology, Remote Sensing, Biosciences, Agriculture, Environmental Sciences, Horticulture and Agriculture/Environmental Engineering. Presently, the course is organized on semester basis. During the two years (four semesters) of course, students receive fundamental training in each of basic competence domain of their field of specialization and to complete their dissertation work. Practical training in the integrated approach through common case studies and research training through the submission of a dissertation is imparted. Students receive exposure and are trained for the actual circumstances and scenario through rigorous training and field visits.

#### **Facilities Available**

- Lab Facilities: Labs equipped with the instruments like seed germinator, spectrophotometer, oven, pH meter, conductivity meter, electronic balance, centrifuge, quality microscopes, growth chamber, incubation chamber, laminar flow, seed moisture, seed analyser, tree measuring sets, grinder, shaker, deep freezer, distillation unit, autoclave, oil extractor, analytical lab, non-conventional energy equipment and civil engineering work equipment, etc.
- **Library Facilities:** Good quality updated journals like Indian Journal of Traditional Knowledge, Journal of Medicinal Plants, Journal of Rural Development, Journal of Rural Studies, Current Science, Journal of Indian Forestry, Indian Journal of Agroforestry, etc., and quality text books, and reference books of reputed publishers such as CAB, Elsivera, etc.
- **Computer Lab:** Well-established computer lab with Internet facilities for students
- Research Field: At Vishwavidyalaya campus
- **Medicinal Garden:** Established with medicinally important trees, shrubs, herbs and climbers
- Horticulture Field: Established with important vegetable plants
- Biogas Plant/Vermi compost/Field excursion
- Arranged field visits for M.Sc. (Rural Technology) students as per the course requirements
- $\bullet \quad Lectures from \, resource \, persons \, during \, the \, field \, visits \, and \, in \, the \, classroom$









#### **Programmes Offered : Faculty of Science**

#### Master of Science (M.Sc.)

SN.	Name	Duration	Eligibility
1	Master of Science in Physics (M.Sc. Physics)	2 years	B.Sc (Maths)
2	2 Master of Science in Mathematics (M.Sc. Mathematics)		B.Sc (Maths)
3	Master of Science in Chemistry (M.Sc. Chemistry)	2 years	B.Sc (Maths or Bio)
4	Master of Science in Rural Technology (M.Sc. Rural Technology)	2 years	B.Sc. (any discipline)
5	Master of Science in Botany (M.Sc. Botany)	2 years	B.Sc Bio
6	Master of Science in Zoology (M.Sc. Zoology)	2 years	B.Sc Bio
7	Master of Science in Biotechnology (M.Sc. Biotechnology)	2 years	B.Sc Bio
8	Master of Science in Microbiology (M.Sc. Microbiology)	2 years	B.Sc Bio

#### Bachelor of Science (B.Sc.)

SN.	Name	Duration	Eligibility
1	Bachelor of Science in Biology (B.Sc. Biology)	3 years	10+2 in Biology
2	Bachelor of Science in Mathematics (B.Sc. Mathematics)	3 years	10+2 in Maths
3	Bachelor of Science in Bio-Technology (B.Sc. Bio-Technology)	3 years	10+2 in Bio
4	Bachelor of Science in Microbiology (B.Sc. Microbiology)	3 years	10+2 in Bio
5	Bachelor of Science in Computer Science (B.Sc. Computer Science)	3 years	10+2 in Science

#### Diploma of Science

SN.	Name	Duration	Eligibility
1	Post Graduation Diploma Rural Development (PGDRD)	1 year	Graduation any discipline

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# Faculty of Commerce and Management

#### Department of Commerce & Management

Commerce is a fundamental stream of academic discipline along with Humanities and Sciences. The study of commerce involves the understanding of trade with special emphasis on market, economics, fiscal policies and industrial policies.

With an arsenal of financial 'weapons' at your disposal, you will learn about the role of commerce in organizations.

The commitment of our department is found within the framework of vision and submission to offer skilled and intellectual workforce according to the progressive and latest concepts of management. Not only academically but students are also ethically endowed to serve different organizations for the betterment of Indian society. Various social initiatives have been taken by our departments to develop sensitivity in future managers. For the students of commerce, we impart training on software used for commercial purpose, so that they come out as a shining star and excel as Charted Accountants or Company Secretaries.





#### **Bachelor of Commerce**

#### 3-year B.Com. (Taxation/Economics/ Banking/Computer Applications)

Programme Objectives: The B.Com. programme at Dr. C.V. Raman University aims to prepare its students in choosing from various verticals of finance and accountancy as a career in Chartered Accountants, Company Secretaries, Cost and Work Accountants, Financial Analysts, etc. It also provides scope for higher studies like M.Com., MBA, CA, CFA, etc., as it provides a strong foundation for commerce with the specialization subjects that covers taxation, economics, banking and computer application as specialization choices for students. It also enables and motivates the students for initiating startups.

#### ${\bf Programme \, Contents \, and \, Academic \, Framework:}$

This is a three-year full time programme, spread over six semesters of teaching that includes practical application of computer as well as problematic & theoretical learning of subjects for turning students into full-fledged professionals. The main emphasis of this course is to impart specialized skill sets in various areas of finance with the view to help them make careers in accounting at national and global levels.

#### Specialization in Taxation:

Indian Tax System

- Tax Planning and Management
- Indirect Tax
- Income Tax

#### **Specialization in Economics:**

- Principles of Banking
- Indian Economics
- International Economics
- Monetary Economics
- Quantitative techniques for Economics

#### Specialization in Banking:

- Principle of Banking
- Indian Banking System
- Banking Theory Law and Practices
- Banking Theory Regulatory Mechanism
- Technology in Banking
- Credit and Risk Management in Banking

#### Specialization in Computer Application:

- Introduction to Computers and Information Technology
- Windows and MS Office
- $\bullet \ \ \mathsf{OOPS} \, \mathsf{and} \, \mathsf{Programming} \, \mathsf{in} \, \mathsf{C} \mathsf{+} \mathsf{+}$
- Database Management Systems
- Programming with VB.NET and ASP.NET

#### **Master of Commerce**

#### 2-year M.Com. (Plain/Marketing/Finance/Computer Applications/Taxation/Banking)

The M.Com. programme at Dr. C.V. Raman University aims to prepare its students in choosing from various verticals of finance, accountancy and marketing. It also provides scope for higher studies like CA, CFA, etc., as it provides a strong foundation for commerce. Students are always motivated to pursue research programmes, obtaining managerial positions in private and public companies, and taking up startups.

#### Programme Contents & Academic Framework:

This is a two-year full time programme, spread over four semesters of teaching that includes practical application of computer as well as problematic and theoretical learning of subjects for turning students into full-fledged professionals. The main emphasis of this course is to impart specialized skill sets in various areas of finance with the view to help them make career in accounting at national and global levels.

#### Specialization in Marketing:

- Advertising and Sales Promotion
- Consumer Behaviour
- Rural and Agricultural Marketing

#### Specialization in Finance:

• Financial Institution and Services

- Security Analysis and Portfolio Management
- Project Management and Control

#### Specialization in Computer Applications:

- Database Management System
- System Analysis and Design
- Business Process Reengineering

#### Specialization in Taxation:

- Direct Tax and Indirect Tax
- Business Taxation

#### Specialization in Banking:

- Principles and Practice of Banking
- Treasury and Risk Management
- Funds Management in Banks

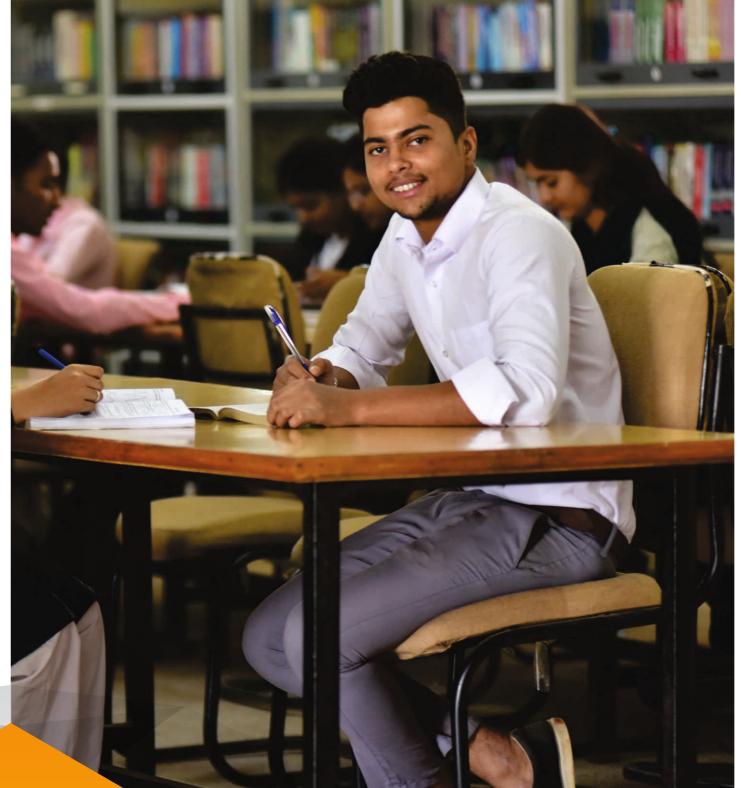


#### **Programmes Offered : Faculty of Commerce and Management**

Name	Specialization	Duration	Eligibility
Master of Business Administration (MBA)	Marketing/HRM/Fin/IT/Travel & Tourism/ Production & Operation	2 Years	Graduate in any discipline
Bachelor of Business Administration (BBA)	Marketing/Human Resource/ Finance/Retail	3 Years	10+2 in any discipline

S. No.	Name	Duration	Eligibility
1.	Post Graduation Diploma in Bussiness Management (PGDBM)	1 Year	Graduate in any discipline

S. No.	Name	Duration	Eligibility
1	Bachelor of Commerce (B.Com)	3 years	10+2 in Science or Commerce Discipline
2	Master of Commerce (M.Com)	2 Years	Graduate in Commerce



# Department of Commerce & Management

Professional management programmes are based on premise that people can learn to manage all types of business situations more effectively. CVRU's MBA programmes focus on the development of contemporary management knowledge, preparing you for the challenges of operation in a fast paced business environment.

The department of Management was established in the year 2008 with the inauguration of the MBA programme. Later in year 2010, BBA was started with the permission of honorable Vice Chancellor. In 2011, we took our first step in the field of research with the startup of M.Phil. and Ph.D. in Management. The department of Management Studies prepares future managers to undertake successful careers in different managerial field. In this regard our department organizes industrial visit, summer training, research activities, sales melas, educational training, and other management games for overall development of students. For the students of Management, we impart training to develop managerial skills, personality development and entrepreneurial skills which is useful for their personal as well as professional growth.

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#### **Bachelor of Business Administration**

#### 3-year BBA (Marketing/Human Resource/ Finance/Retail)

The BBA programme at Dr. C.V. Raman University aims to prepare our students in choosing various verticals of business and management. We provide a strong foundation for students on core business and managerial areas.

#### Industry Internship:

After the culmination of five semesters, the students go for an industry internship with an organization for 15 days. It is a compulsory component for completion of academic term and is designed to provide exposure to organizational work and environment.

#### Programme Contents & Academic Framework:

This is a three-year full time programme, spread over six semesters of teaching that includes analytical, problematic and theoretical learning of subjects for turning students into full-fledged professionals. The main emphasis of this course is to impart specialized skill sets in various areas of business and management with the view to help them make careers in management and entrepreneurship at national and global levels.

#### Specialization in Marketing:

- Consumer Behaviour
- Advertising and Sales Management
- Service Marketing

Marketing Research

#### Specialization in Human Resource:

- Human Resource Management
- Management of Industrial Relations
- Management of Training & Development
- Change Management

#### Specialization in Finance:

- Working Capital Management
- Security Analysis and Portfolio Management

- Marketing of Financial Services
- International Financial System

#### Specialization in Retail:

- Brand Management
- Retail Techniques and Skills
- Supply Chain Management
- Mall and Risk Management



#### Master of Business Administration

#### 2-year MBA (Marketing/Finance/Human Resource/IT/Production and Operations/Travel and Tourism)

The MBA programme at Dr. C.V. Raman University aims to prepare its students in choosing from various verticals of business administration. We provide a strong foundation for students on core business & managerial areas. This enables students to become job ready professionals and helps them to take up managerial and entrepreneurial roles in future. It also provides scope for research studies. Students are always motivated to pursue research programmes, obtaining managerial positions in private & public companies and taking up startups.

#### Industry Internship:

After the completion of four semesters, the students go for an industry internship with an organization for 45 days. It is a compulsory component for completion of academic term and designed to provide exposure to organizational working.

#### Programme Contents & Academic Framework:

This is a two-year full time programme, spread over four semesters of teaching that includes industrial exposures as well as analytical, problematic and theoretical learning of subjects for turning students into full-fledged professionals. The main emphasis of this course is to impart specialized skill sets in various areas of business with the view to help them make careers at national and global levels.

#### Specialization in Marketing:

- Consumer Behaviour
- Advertisement and Sales Promotion
- Service Marketing
- CRM and Sales Management
- International Marketing
- Retail and Rural Marketing

#### Specialization in Finance:

- Security Analysis and Portfolio Management
- Tax Management and Planning
- Financial Institution and Services
- Working Capital Management
- Financial Derivatives
- Banking and Finance





## Faculty of Education & Physical Education

Education is the key to our future. These courses help you understand the theories, values, policies and practices that underpin 'education for all'. The faculty of Education is a constituent faculty of CVRU offering programmes both at graduate and postgraduate levels. We are committed towards improving the quality and understanding of education and social service provisions in India.

#### **Department of Education**

The department of Education enjoys a special privilege as well as a sense of responsibility. In recent times, teacher education has been looked at as one of the most important areas of thrust worldwide. With this awareness, the department aims at imparting the latest and the best education to the students accordingly. The syllabi of all the courses are designed to keep pace with the latest trends in education. The department possesses a team of able and sensitive teachers, striving to promote among the prospective teachers and the teacher educators – a high standard of knowledge, professional skills, cultural understanding, social responsibility and synergistic progress within a truly multicultural educational environment. The department offers state-of-the-art curriculum incorporating the modern thoughts in value and place of teaching professional through ample practical experiences. Besides this, our research programmes focus on M.Phil. and Ph.D. The department helps the researchers in different ways to achieve their research work up to a desirable position.

#### **Department of Physical Education**

The department was established in the year 2007. The university has adequate infrastructure for outdoor games like Volleyball, Kabaddi, Kho-Kho, Football, Netball, Handball, Cricket, Running, Throwing, Jumping, Shooting range (Archery), Softball, etc. The indoor facilities include Chess, Carrom, Table Tennis, well-equipped Gymnasium at university hostel with aerobic and strength training equipment. The university promotes sports and games culture whole

year among the students by organizing training and coaching programmes in various sports and games. The team participates in All India and East Zone Inter University Competitions. In addition, health related physical activities and recreational activities are also encouraged. Annual Sports and Games are organized by Physical Education department every year for all students. The department also offers both Bachelor and Master Degrees in Physical Education and Sports.

#### **Programmes Offered**

S. No.	Name	Duration	Eligibility
1.	Master of Education (M.Ed.)	2 years	Graduate with B.Ed.
2.	Bachelor of Education (B.Ed.)	2 years	Graduate with 50% (as per NCTE norms)
3.	Master of Physical Education & Sports (MPES)	2 years	Graduate with B.P.Ed./BPES
4.	Bachelor of Physical Education & Sports (BPES)	3 years	10+2