

# **UNIVERSITY COLLEGE OF SCIENCE** **TUMAKURU**

*(A Constituent College of Tumkur University)*

*(Recognized as College with Potential for Excellence by UGC, RUSA Funded and Accredited B+ by NAAC)*

[www.ucst.ac.in](http://www.ucst.ac.in)



## **PROSPECTUS 2020-21**



## **VISION**

To achieve academic excellence in Higher Education and Research

## **MISSION**

- To inculcate and nurture young minds to evolve an effective mechanism for greater participation of all the stake holders of University College of Science
- To develop and operationalize a strategy to foster financial self-sufficiency
- To promote cordial working conditions work ethics, work culture among the faculty and staff members thereby promoting the welfare of the students and the society
- To introduce innovative curricular framework of knowledge, skill and aptitude
- To encourage application oriented higher education and research

## **UNIVERSITY ADMINISTRATION**



**Prof. Y. S. Siddegowda**  
Vice-Chancellor, Tumkur University



**Prof. K. N. Ganganaiik**  
Registrar, Tumkur University

## **College Facilities: Salient Features**

Established in 1940 and located in the heart of the city, the College has been promoting education in Science at the undergraduate, post graduate and doctoral levels for nearly 75 fruitful years. Thousands of students graduate from the college ever year. The college has the built-up area of about 13758.60 sq.m. and is housed in a 'Green Campus'.

- ICT based learning: Classrooms are equipped with LCD projectors and smart boards to enable Technology Enabled learning
- College premise is Wi-Fi enabled
- Well established state of the art laboratories
- Highly qualified faculty members in every department who are engaged in research
- Departments regularly organize workshops, conferences, seminars for the benefit of the students
- Research oriented atmosphere to inspire and engage the students in higher learning of science
- Canteen facility
- C .C. T V surveillance to provide security to the students and staff

## Message from the PRINCIPAL DESK



**Principal: Smt. Shalini B.R**

University College of Science, Tumkur is the first college in Tumkur District to be accredited with “B+” Grade by National Assessment and Accreditation Council and the College boasts of its historical reputation of spreading Science Education in the region for the last seventy five years. I am pleased that the college is able to create a conducive atmosphere for learning science by constantly engaging with students, parents and other stakeholders. The role of our teachers in catering to the educational requirements of the students is highly commendable. On the other hand, constant monitoring of progress of the students by mentors creates a sense of community in the college. Well-equipped laboratories and the library fulfill the curricular requirements of the student. Co-curricular activities like sports, N.S.S., N.C.C. Red cross, scouts and Guides attempt to bring out the latent talent, nourish and promote the personality development of the students. It is a matter of pride that teachers are highly qualified, proficient and each teacher is constantly engaged in research activities like undertaking projects, organizing and participation in workshops, seminars and conferences at national and international levels. This research driven action inspires and encourages the students to engage in advanced learning and research. This has contributed to the reputed institution a centre for promoting science education. I hope that the student community shall take advantage of the benefits and encourage us to serve for the cause of Higher Education.

Smt. Shalini B.R, M.Sc., (Ph.D.)

## **RANK HOLDERS and ACHIEVERS**

**University College of Science has bagged five ranks out of ten ranks awarded by the Tumkur University for the M.Sc/B.Sc. Courses for the year 2019-20**



**Soundarya T.L**  
**M.Sc Chemistry, First Rank**



**Ranjitha R**  
**M.Sc Physics, Third Rank**



**Brinda S.J**  
**M.Sc Physics, Fourth Rank**



**GURUPRASAD ST TOPPER IN B.Sc**



**SAGAR SC TOPPTER IN B.Sc**



**BHAVANA R**  
**FIRST RANK IN B.SC**



**DEVALAGARI SHWETHA**  
**THIRD RANK IN B.Sc**



## NET/KSET/GATE EXAMS QUALIFIED STUDENTS



**Jansi Rani .M**  
**CSIR-JRF, SLET, GATE QUALIFIED**  
**M.Sc Physics**



**Soundarya T.L**  
**KSET Qualified 2019**  
**M.Sc Chemistry**



**Pruthvi Raj .K**  
**KSET Qualified**  
**M.Sc, Chemistry**



**Kalinga Naik**  
**GATE Qualified 2019**  
**M.Sc Chemistry**



**Shiva Kumar**  
**GATE Qualified 2019**  
**M.Sc Chemistry**

## **University College of Science: Introduction**

University College of Science (erstwhile Government Science College) was established in 1940. The college was taken into the fold of Tumkur University as its constituent college in 2009. The college was accredited with Grade "A" by NAAC in recognition of quality in education in its second cycle and reaccredited with a B+ grade in the third cycle under the revised grading system. It is also recognized as College with Potential for Excellence by UGC. Presently the college has over 1400 students.

The college has resourceful faculty members who are dedicated to teaching and also undertake research activities with grants from several funding agencies. The College offers three years undergraduate course in different subjects and three Post graduate Departments leading to the award of Bachelor and Master Degrees in Science from Tumkur University, Tumkur. There are Ph.D guides in various subjects.

The college has eleven U.G Departments viz. Kannada, English, Botany, Biotechnology, Chemistry, Computer science, Electronics, Mathematics, Microbiology, Physics, and Zoology. There are three P.G Departments which include Physics, Chemistry and Environmental Science. The Departments are equipped with the state of the art laboratories.

**Principal:** Mrs. Shalini B.R, Associate Professor, Department of Botany

**Vice-Principal:** K.V.C Rathnakumari, Associate Professor, Department of Zoology.

## **Departments of the College**

### **Department of Kannada:**

The Department of Kannada engages in providing impetus to the development of linguistic capacities for the students apart from encouraging the students to participate in curricular and co-curricular activities.

**H.O.D:** Dr. Geetha Vasanth, M.A, Ph.D, D.Lit, Assistant Professor

#### **Lecturers**

Dr. Dharmavera K H, M. A, Ph. D.

Dr. Nataraju J M.A.

Asharani K, M. A.

Dr. Shivanna T S M.A. Ph.D.

### **Department of English**

The Department of English aims to facilitate the development of proficiency in English and communication skills apart from writing skills.

**H.O.D:** Dr. Jyothi M.A, Ph.D., Assistant Professor

#### ***Assistant Professors***

Sri. Bharath Shilpi, M.A., (Ph.D)

#### ***Lecturer***

Kavitha R

Girish D.T

## **Department of Botany**

The Department focuses on the study of plants including anatomy, morphology, molecular biology, physiology, genetics and plants of economic importance.

**H.O.D:** Smt. Shalini B.R, M. Sc, (Ph.D), Associate Professor

### ***Lecturers***

Lakshman M. Sc, Ph. D.	Roopashree, M.Sc
Indushree M.N. M.Sc	Sreenivas, M.Sc
Raghuprasad, M.Sc	Kusuma, M.Sc

## **Department of Biotechnology**

The Department aims to equip the pupils in imparting knowledge and practical skills relating to biotechnology, thereby making them the entrepreneurs of the future.

**H.O.D:** Dr. Dwarakanath V, M.sc, Ph. D, Assistant Professor

### ***Assistant Professors***

Dr. Poornima D, M.Sc. Ph. D  
Dr. Krishna, M.sc, Ph. D,

## **Department of Chemistry and Biochemistry**

The Department aims to introduce the students to the theories in chemistry and technological practices of chemistry.

**H.O.D:** Dr. Suresh D., M.Sc, Ph.D, Assistant Professor

### ***Associate Professors***

Dr. Shet Prakash M, M. Sc. Ph. D  
Dr. Sreenivas.S, M. Sc. Ph. D

### ***Assistant Professors***

Dr. Aruna Kumar D.B, M. Sc., M. Tech., Ph. D  
Dr. Vijayakumar G.R, M. Sc. Ph. D  
Smt. Savitha K R, M. Sc. (Ph. D)  
Dr. Suchetan P.A, M. Sc. Ph. D  
Dr. Shivananda M.K, M. Sc. Ph. D  
Dr. Narendra N, M. Sc. Ph. D  
Dr. T.N. Ramesh, M. Sc. Ph. D  
Dr. Jayashankar M. M. Sc. Ph. D  
Dr. Raghavendrakumar P, M. Sc., B. Ed., Ph. D  
Dr. Nirmala .B, M. Sc., B. Ed., Ph. D  
Sri. Venkateshappa. G, M. Sc. (Ph. D)  
Dr. Bhagyalakshmi. M, M. Sc., Ph. D  
Smt. Madavi sunitha, M. Sc., (Ph. D)

### ***Lecturers***

Divya C.P. M.Sc.,  
Chethana K O, M. Sc.  
Vinutha N.D., M.Sc.,  
Shwetha N. M.Sc.,  
Raghavendra T O, M. Sc.  
Dakshayini A.S., M.sc.,  
Khusem Rashid Khan M.Sc.,  
Harshitha R  
Lavanya K N, M. Sc.  
Harshitha V M.Sc.,

## **Department of Computer Science**

The students are introduced to the requirements of the software industry. The Department employs need-based approach in equipping the students with advanced computation.

**H.O.D:** Dr. B.L Mukundappa, M.Sc, (Chem & C.S) M.Phil, Ph.D, Associate Professor

### ***Assistant Professor***

Dr. Kusuma Kumari B.M, M.C.A, M.Phil, Ph.D.

### ***Lecturers***

Sowmy B, M.Tech

Nalina M A ,M.C.A.

Shashikala M M.Sc.,

Sowmya P, M. Tech.

Suma .N, M.Tech.,

Asmina, M. Sc.,

Vidya Tammineni, M. C. A.

Ashwini N., M.Tech

Abhishek Gowda M.sc.,

Sangeetha, M.Tech

## **Department of Electronics:**

The studies in the Department introduce the students to network the theorems, semiconductor theory, diode application, digital electronics, communication system and b microprocessors.

**H.O.D:** Dr. Shwetha D., M.Sc, Ph.D., Assistant Professor.

### ***Assistant Professor***

Dr. Manjunath D., M.Sc, Ph.D,

### ***Lecturer***

Mahesh. H, M.Sc.

Afshan Taj M.Tech

## **Department of Mathematics**

The Department strives to create adequate opportunities for students to understand and appreciate the applicative potential of mathematics.

**H.O.D:** Dr. Narahari N, M.Sc, Ph.D, Assistant Professor

### ***Lecturers***

Sangetha T L, M. Sc.

Manohar T, , M. Sc.

Chennabasavaiah, M. Sc.

Jeeven Kumar, , M. Sc.

Srikanth C.K.

Rekha R, , M. Sc.

Akshatha M, , M. Sc.

Anitha H D, , M. Sc.

Chandan K.G. M.Sc.,

Mantesha, , M. Sc.

Gowtham K J, , M. Sc.

Shylaja B.P.

Prema kumari Aryan M.Sc.,

Akshatha Y, M. Sc.



## **Department of Microbiology**

The Department aims to inculcate scientific temperament and research abilities among the students and impart the knowledge of microbiology.

**H.O.D:** Smt. Shabeen Anjum K S, Assistant Professor

### ***Assistant Professor***

Dr. Rashmi Hosamani , M.Sc.,Ph.D

### ***Lecturers***

Swathi R, M. Sc.

Shilpa. K M, , M. Sc.

## **Department of Physics**

The Department is engaged in creating adequate opportunities for students to understand the principles and appreciate the applicative potential of physics.

**H.O.D:** Dr. Chethan Prathap, M.Sc, Ph.D, Assistant Professor.

### ***Assistant Professors***

Dr. Ramakrishna. G, M.Sc, M.Phil, Ph.D

Dr. Malleshappa .J, M.Sc, M.Phil, Ph.D

Dr. Vaidya, R.G. M.Sc.,Ph.D

Dr. B S Palakshamurthy, M.Sc, M.Ed, Ph.D

Sri. Veerabhadrayya M, M.Sc, M. Phil, Ph.D

Dr. Chikkappa Udagani, M.Sc, Ph.D

Sri. Harisha Kumar K, M.Sc., Ph.D

Smt. Mangalagowri M, M.Sc., Ph.D

Sri. Hemantha M, M.Sc.,

Sri. Narayan Gaonkar, M.Sc.,

### ***Lecturers***

Madhura A M.Sc.,

Roopa M M.Sc.,

Usha G. M.Sc.,

Divyashree R M.Sc.,

Shwetha S.N. M.Sc.,

Megha M.U. M.Sc.,

Chethan B S, M. Sc.

Meghana H N, M. Sc.

Chaitra N C, M. Sc.

Sandhya K C, M. Sc.

Swathi B K, M Sc.

Megha V M.sc.,

Harshitha R M.Sc.,

Sumaiya Banu, M. Sc

## **Department of Zoology:**

The Department aims to impart basic Knowledge about cytological techniques, structure and functions of various organic compounds, protein synthesis, molecular basics of DNA, genetic analysis.

**H.O.D.:** Dr. Parimala B, M.Sc, Ph. D

**Associate Professor**

K.V.C Rathnakumari, M.Sc,

**Assistant Professors**

Dr. Lalitha, H.M, M.Sc., Ph. D

**Lecturers**

Manasa G, M.Sc

Ravikiran K M, M.Sc

Bhavyashree S P, M.Sc

Manikanta M.Sc.,

**Non-Teaching Staff****Office Support Staff**

Sri Nagaraja ,H

Smt .Gayathri .B

Smt. Mamatha.K.C

Smt. Lakshmi B

Sri. Chikkanna C

Sri. Honneshappa ,S.R

Sri Sreenivasa V

Smt. Hema B

**Lab Support Staff**

Smt. Bhramarambha B

Smt. Savithramma B N

Sri Narasimha Murthy

Sri Sateesha A

Smt. Indramma

Smt. Puttalakshamma

Smt. Chandrakala

Smt. Bharathi

**Student Support (Learning Resources)****Library and information Centre:**

The Library is located in the premises of the college and has rich and diverse collection. The collection of the library is covering areas of Life sciences, Physical Science, Chemical Science, Biological Sciences and Computer sciences and is growing at a very fast pace to match the changing needs of the students and the staff of the college. The collection of over 50,000 books and reference books, CDs and DVDs, back volumes of journals/periodicals, magazines, project reports and other reading materials can be found. Library subscribes 31 state, national and international journals/periodicals in the various fields of science and technology. Open Access approach has been adopted to provide users with best of the service.

Library Automation is complete and it is well equipped with computers and Internet facility. Library has access to more than 6500, e-journals and 1,00,000 e-books through program entitled "National library and information services Infrastructure for scholarly content (N-LIST)" by INFLIBNET and xerox facilities. RFID Technology implementation is in process.

**Librarian:** Mrs. Rajalaxmi A Govanakoppa, M.L.I.Sc., (Ph.D),

Shruthi S.,B. L.I.Sc., Library Assistant

**Library Support Staff**

Savithramma B.R.,

Prathap

Chandramma

## **Student Support (Co-Curricular)**

### **Sports and Physical Education**

The Department of Sports and Physical Education attempts to create awareness about health and fitness apart from teaching, training and coaching in indoor/outdoor games/fields events. It organizes competitions at the interclass, inter-college and inter-university levels.

**Dr. A M Manjunatha**, M.A, M.P.Ed, Ph.D, Assistant Director of Physical Education

**Cultural committee** is very active and students are encouraged to participate in co-curricular activities. Many students represent the college at various levels and bring laurels to the college.

## **Student Support (Overall Development)**

### **Students Counseling Cell**

Student counseling cell functions to address the cognitive and psychomotor challenges and assists the students in stress management during distress.

### **Remedial and Coaching classes**

Remedial classes are conducted to help the students to improve their performance in the exam and to resolve the challenges in the class room. Classes are conducted in spoken English to improve the proficiency of the students in English and related soft skills.

Coaching classes are conducted for the students to appear for the competitive examinations like civil services, banking etc.

### **Sexual Harassment Prevention Cell**

Sexual Harassment prevention Cell is established with the senior faculty members as its members to maintain the dignity of the women (students and staff) and to prevent any untoward incidents towards the safety and self-respect of women.

### **Placement Cell**

Placement cell is caters to the need of the students relating to employment, personality development and skill development.

### **Students Welfare Committee**

Students' welfare committee functions as a forum for the promotion of academic, social and personality developments of students.

### **Hostel Facilities**

Hostel accommodation is available for men and women. In addition, hostels are also available for the students belonging to SC/ST categories with the funding from the Social Welfare Department of the Government.

### **Extension Activities**

Students are encouraged to participate in NCC and NSS activities are aimed at strengthening the spirit of national integration and democratic spirit towards building a strong secular society. NCC cadets participate in different camps and support the college in maintaining the discipline.

### **Anti-Ragging Policy**

The college strictly adheres to anti-ragging policy as stipulated by UGC and the Government. A student has to submit an undertaking that he/she shall not indulge in ragging or any other activity which violates human dignity and societal norms.

### **Courses offered by the College**

The college offers B. Sc. courses in different fields of studies in science. The B.Sc. course is of six semesters duration and is of the Choice Based Credit System (CBCS) type. For details regarding the regulation of the courses and the syllabi of subjects, please visit the website [www.ucst.ac.in](http://www.ucst.ac.in) and [www.tumkuruniversity.ac.in](http://www.tumkuruniversity.ac.in)

The following subjects are available in combination for the B.Sc. Course.

Physics	Chemistry	Mathematics	<b>(PCM)</b>
Physics	Mathematics	Computer science	<b>(PMCs)</b>
Physics	Mathematics	Electronics	<b>(PME)</b>
Chemistry	Botany	Zoology	<b>(CBZ)</b>
Chemistry	Zoology	Biotechnology	<b>(CZBt)</b>
Chemistry	Botany	Biotechnology	<b>(CBBt)</b>
Chemistry	Zoology	Microbiology	<b>(CZMb)</b>

### **Bachelor of Vocational Course (B.Voc) in Hardware Technology & Networking**

Bachelor of Vocational Course is a 3-year undergraduate course is available for pursuance by students hailing from different fields. The basic eligibility for admission to this course is the successful completion of the PUC (class XII or equivalent) from a recognized educational Board. The course has essentially been designed for students wishing to enhance their employability and facilitates students in learning integrated with professional grooming. The curriculum is based to cater the industry demands. The college has entered into MOUs with reputed companies such as INTEL Semiconductor Devices Ltd. and INCAP Solutions ltd. for technical and placement support to the B. Voc. students.

As per the UGC guidelines the students studying B.Voc Degree can obtain the certificate of:

- Diploma after successful completion of first year of B.Voc.
- Advanced Diploma after successful completion of second year of B.Voc.
- Degree in B.Voc after successful completion of all the three years.

### **Bachelor of Computer Application (BCA):**

The course will be started from the academic year 2019-2020 at the University College of Science.

Bachelor of Computer Application (BCA) is an undergraduate degree course in computer applications. With the rapid growth of IT industry in India, there is an increasing demand for computer professionals. The degree helps interested students in setting up a sound academic base for an advanced career in Computer Applications.

BCA is a three years undergraduate degree program for candidates wishing to delve into the world of Computer languages. The minimum qualification required to apply is a pass in the PUC (10+2 or equivalent) examination from any recognized central or state board with Mathematics / Business Mathematics / Commerce / Computer Science / Statistics as one of the core subjects or a course recognized as equivalent thereto by the university. Syllabus: The basic course curriculum of BCA, typically lays emphasis on database management systems, operating systems, software engineering, computer Networks, web technology and programming languages such as C, C++, Python, Java, PHP etc.

### **PG. COURSES**

M.Sc. Physics,	Coordinator- Mr.Veerabhadraiah/ Rudraiah
M.Sc. Chemistry	Coordinator- Dr. Vijay Kumar G.R
M.Sc. Environmental science	Coordinator -Dr. Raja Nayak H.

### **Fee Structure and Reservation Policy:**

Fee Structure for admission and examination is as per the university norms and the orders of the Government Reservation Policy is maintained regarding admissions. Details of the fee structure belonging to different categories shall be displayed in the notice board of the college.

### **Scholarships:**

Several merit based scholarships are available for students belonging to SC/ST, OBCs, minorities, and physically challenged (Divyang) students. The Department of Science and Technology, Govt. of India, corporations and corporate house and community welfare societies also provide scholarships.

### **Application Fee: Rs. 50-00**

**For more details contact the Office of the Principal, University College of Science, B.H. Road, Tumkur, Telephone; 0816-2260220**

**Email ID: [Principalucst@gmail.com](mailto:Principalucst@gmail.com); College website: [www.ucst.ac.in](http://www.ucst.ac.in)**



## Infrastructure and Activities: A Glimpse



PG/UG Girls Hostel



PG/UG Boys Hostel



Environmental Day Celebration



College Library



Food Bags Distribution to College Out Source Employees



MoU with 32 Colleges and Industries including Shridevi Institute of Technology





College Inaugural Function



Independence Day Celebration



Plastic and Waste Free Campaign



Red Ribbon Club Inauguration



Science Day Celebration



SRUJANA UCS Inaugural Function

## N.C.C. Activities:



Junior under officer Snehashree of III B.Sc CBBt being facilitated by VC and Principals, for Participating in RDC New Delhi



Inaugural Program of NSS Camp 2020



UCS NCC Contingent winning the Second Prize in the Independence Day 2019 March past 2019.



## PLACEMENT Activities:



Students Selected in the Wipro Campus



Inauguration of Placement Training Recruitment Drive Program by UNNATI, an NGO, Bengaluru



Career Guidance Programme by DISHA – Guidance Cell as a part of Entrepreneurship Development, Government of Karnataka



Lecture on 'Opportunities in Defence' by Sri Sanjeeva Reddy, ex-military personnel



Placement training program by NUDGE foundation, Bengaluru



Placement training and Certification by IBM, Bengaluru



**SPORTS Activities:**





## NSS Activities:





## Department Activities



Workshop on “Bird Survey at Devarayanadurga State Forest” on 4/1/2020



Department of Zoology Organized Science Quiz



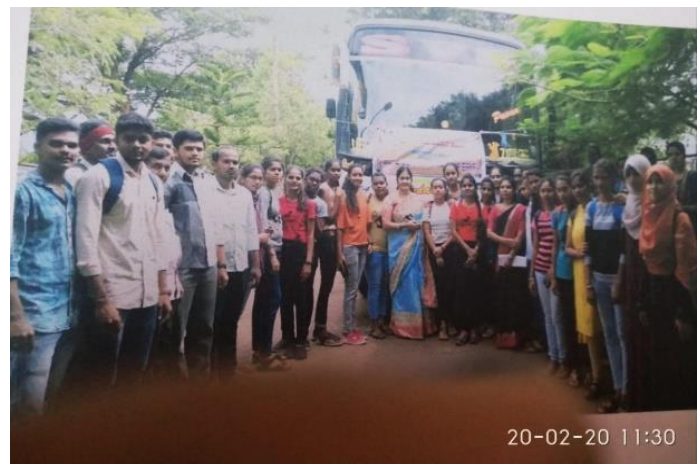
Department of Computer Science organizing Workshop on Programming using Python,



Science day Celebration by Department of Computer Science



Department of Botany Science Day Celebration



Educational Tour Organized by Department of Botany





Department of Biotechnology Science Day Celebration



Department of Microbiology Organized Special talk on COVID-19



Participation of Department Of PG Studies and Research In Physics in **107<sup>th</sup> Indian Science Congress** focusing on rural development held at University of Agricultural Sciences, GVKK Campus, Bangalore On **3<sup>rd</sup> Jan 2020 to 7<sup>th</sup> Jan 2020** in the Tumkur University stall.



POPULARISATION OF SCIENCE PROGRAMME AND NATIONAL SCIENCE DAY AT SIDDAGANGA SCHOOL, AREYURU, TUMAKURU TALUK ON 28 FEBRUARY 2020.



Department of Microbiology Science Day Celebration