

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)

Danavaipeta, Rajahmundry; Tel./WhatsApp: 8660301662; Email: tcabse.india@gmail.com



Brochure - 2020
BLOGGERS - 5050

Welcome to TCABS-E!

Danavaipeta, Rajahmundry – 533103. Andhra Pradesh.

Contact email: tcabse.india@gmail.com

Contact telephone/WhatsApp: 8660301662

Website: <https://www.tcabse.org>

New branch: Maharaniipeta, Visakhapatnam. A.P.

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)



Contents

- Message from the founder.....page 4.
- Popular programs at TCABS-E.....page 5.
- Internship choices at TCABS-E.....page 6.
- Popular Certificate courses at TCABS-E.....page 7.
- Speciality certificate courses at TCABS-E.....page 8.
- Projects, thesis and/or dissertation works at TCABS-E.....page 9.
- Eligibility criteria.....page 10.
- Fee structure.....page 11.

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)



Welcome to TCABS-E!

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E) has been established as a laboratory based training place for the current and future generation Scientists and Scientific Entrepreneurs. At TCABS-E we believe that the laboratory training should be custom-designed to fit all enthusiastic learners instead of imposing one program for everyone. Although we have plethora of courses covering wide-range of topics, we believe in listening to the students' requirements and recommend custom designed courses or programs that benefit them the most. Our ultimate goal is to see all the trainees succeed in their careers!

TCABS-E has been founded by Dr. Ravikiran S. Yedidi with a goal to bring the advanced and applied sciences to the trainees at affordable cost in a custom designed way to fit their requirements in their careers. Dr. Yedidi has more than 20 years of biomedical research, training, mentoring and teaching experience from USA, Canada and India. Having worked in the fields of infectious diseases such as AIDS, Malaria, etc. and Cancer at international standards in USA and Canada, it is time to bring those standards to India.

We believe that any trainee can succeed if trained properly with proper standards in a systematic way and we hope to see India leading in the international biomedical field in future!

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)



Popular programs at TCABS-E:

- **Scientist program:** Minimum qualification – should pass 10+2 (or) intermediate.
 - This is a two-year Postgraduate diploma program divided into 4 semesters.
 - First two semesters cover most of the certificate courses listed in this brochure including some of the speciality certificate courses depending on the interest of the participant. Full laboratory training will be provided to make the participant an independent Scientist.
 - The last two semesters will focus on grant writing and industrial training.
- **Scientific Entrepreneurship program:** Minimum qualification – should pass 10+2 (or) intermediate.
 - This is a 2.5-year Postgraduate diploma program divided into 5 semesters.
 - First two semesters are same as the Scientist program mentioned above.
 - Third semester includes grant writing, real-time project development and industrial training.
 - Fourth semester includes start-up company ideas, business development, investor pitch meetings.
 - Fifth semester includes a management boot camp to start-up a company based on a real-world problem. Funding will be available through various means as long as the start-up idea is a viable one.

NOTE: The Scientific Entrepreneurship program comes with placement option!

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)



Internship choices at TCABS-E:

- **Life Sciences:** Training based on an interdisciplinary approach containing a combination of Biochemistry, Molecular Biology, Microbiology, Genetic Engineering and Biotechnology. Available partly online but laboratory training is required!
- **Computational:** Training based on Bioinformatics, Computational Biology further extending into Cheminformatics and Computational Chemistry. Completely online and laboratory training is optional!
- **Medicinal Chemistry:** Interdisciplinary training in Synthetic/Organic Chemistry, Computational Chemistry, Cell Biology, Pharmacology and Toxicology. Available partly online but laboratory training is required!
- **Biophysics:** Combination of various Biophysical techniques used in Biomedical Sciences. Includes both basic and advanced techniques. Available partly online but laboratory training is required!
- **Drug Discovery:** Interdisciplinary training focused on the entire pipeline of Drug Discovery both academic and industrial protocols followed in the pre-clinical biomedical research. Available completely online and laboratory training is optional!

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)



Popular Certificate Courses at TCABS-E:

(NOTE: The certificate courses listed below are offered at basic and advanced levels)

- Basics of Molecular Biology
- Molecular Biotechnology
- Genetic Engineering
- Protein Engineering
- Cell culture
- Protein production
- Bioinformatics
- Computational Biology
- Computational Chemistry
- Synthetic Organic Chemistry
- Medicinal Chemistry
- Biophysics
- Structural Biology
- Scientific Entrepreneurship
- Machine Learning in AI
- Applied Microbiology
- Applied Virology
- Scientific Communication
- Recombinant DNA technology
- Ubiquitin-Proteasome System
- PCR & Genotyping
- Animal models
- ADME-Tox. Analysis
- Chromatography for Biologists & Chemists

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)



Speciality Certificate Courses at TCABS-E:

- Drug Discovery
- Genome editing – CRISPR/Cas9
- Vaccine design
- COVID-19
- Assay development
- Data Science & Big Data
- Cancer neo-antigens
- Infectious diseases
- Cancer Immunotherapy
- High-throughput screening
- Homology structural modelling
- Molecular dynamics simulations
- Chemical Biology
- Clinical drug-resistance
- Drug-resistance (general)
- Structure-based drug-design
- PK/PD – Modelling
- Functional Genomics
- Yeast two-hybrid system
- X-ray crystallography
- Clinical sample analysis
- HPLC – Method development
- Clinical trials
- Biostatistics

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)



Project work and/or thesis/dissertation work at TCABS-E:

- **Projects:** Minimum qualification – should pass 10+2 (or) intermediate.
 - In-house projects: If the trainees are interested in working on TCABS-E's in-house projects, then they have to prove that they have the practical skills that are required for the project. Generally, in-house training will be provided for such project with some cost involved.
 - Out-side projects: If the trainees would like to bring in their own projects and use TCABS-E's laboratory for their work then the charge is determined based on the project and duration.
- **Thesis/dissertation work:** Minimum qualification – should pass 10+2 (or) intermediate.
 - Undergraduate students must work on projects designed by TCABS-E towards their thesis. However, minor changes are allowed with the approval of the their home institution/college.
 - Post graduate students are highly encouraged to think on their own for their thesis/dissertation. However, TCABS-E can provide pre-designed projects towards their thesis in certain cases.
 - Doctoral students are expected to work independently on their thesis/dissertation work in TCABS-E. However, help will be provided if needed.

NOTE: Full support on how to write thesis/dissertation including how to present their work will be provided for all.

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)



Eligibility criteria for Internships and Certificate courses at TCABS-E:

- **Internships:** Minimum qualification – should pass 10+2 (or) intermediate.
 - Mostly useful for undergraduate students from both professional (MBBS, Bpharm, etc.) and non-professional (BSc, BA, etc.) streams in their job search after they finish their undergraduate studies. Also very useful for the undergraduate students to gain practical hands-on training which helps them in their future studies such as postgraduate studies, etc.
 - Postgraduate students and working professionals are also welcome to join the internship programs. However, we custom design the programs to fit their needs better.
- **Certificate Courses:** Minimum qualification – should pass 10+2 (or) intermediate.
 - These are open to all that meet the minimum qualification. Certificate courses are designed to enhance the theoretical knowledge of the participants. The participants can choose to transfer into an internship program from the certificate courses if interested.
 - Speciality certificate courses are designed to enhance specific knowledge in advanced-applied fields for the participants. Anyone who meets the minimum qualification can participate. The participants can choose to transfer into an internship program from the certificate courses if interested.

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)



Fee structures at TCABS-E:

- **Internship:**
 - NOTE: All internship programs may require some laboratory practicals which are subjected to COVID-19 lockdown rules.
 - Life Sciences, Computational, Medicinal Chemistry and Biophysics each cost ₹5,000 per head.
 - Drug Discovery costs ₹7,000 per head.
- **Courses:**
 - Certificate courses each cost ₹3,000 per head if completed online without laboratory practicals and ₹5,000 per head including laboratory practicals.
 - Speciality certificate courses each cost ₹5,000 per head if completed online without laboratory practicals and ₹7,000 per head including laboratory practicals.
- **Projects, thesis and/or dissertations:** Minimum charge of ₹5,000 must be paid in advance to use the laboratory facilities at TCABS-E. If the project exceeds more than one month, an additional ₹5,000 will be charged. Projects exceeding 6 months will have a separate cost! NOTE: If you continue at TCABS-E after internship into a project, the maximum cost will be ₹10,000 (including internship) irrespective of duration.

The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)



The Center for Advanced-Applied Biological Sciences & Entrepreneurship (TCABS-E)

Danavaipeta, Rajahmundry; Tel./WhatsApp: 8660301662; Email: tcabse.india@gmail.com



Brochure - 2020
DLOGUML& - 5050