

"ज्ञान, विज्ञान, सुसंस्कार यांसाठी शिक्षण प्रसार"

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur [Autonomous]

(Affiliated to Shivaji University Kolhapur)



WHATSAPP BIOTECH

By,

Department of Biotechnology
(Optional)



Principal's Desk...



"Our core beliefs about academic success is that hard work, determination, and consistent effort are key elements in achieving success."

- Dr.R.R.Kumbhar

Teacher's Talk...



Ms.S.H. Nadaf
HOD

"I encourage everyone to explore outside-of-the-classroom opportunities. For example, I would like to continue to pursue a PhD degree and do research. Therefore, I chose to study under the Biochemistry track which requires students actively participate in an independent research project. I am so happy to have the chance to conduct research. I've been focusing on developing and creating promising therapeutic strategies. During this research experience, I have sharpened my laboratory skills, learned deeper in this exciting topic of Biochemistry, and greatly improved my communication and presentation skills."

Ms.M.D.Ulape
Asst Prof

"As a program by the University and Sciences, and with the great resources on campus, the BSc and MSc program will never limit your potential and will let you pursue whichever career path in the biotech field you are interested in. I'm so glad that I have met some of my staff here who I'm sure I will taught out with for the rest of my life. It has been a wonderful experience for me in the Graduation and PG program!"



Ms. A.A.Jadhav
Asst Prof

"One big reason for my decision to attend the Biotechnology Program was the great flexibility and breadth offered by its curriculum. The core courses such as Entrepreneurship and Life sciences ensure that students have a solid foundation of knowledge in biotechnology".



Magazine Committee Members

Recent ongoing Researches

श्रेणिक (TY)
अतुल (TY)
महिमा (SY)
ऋतुजा (FY)
सादिया (FY)
अंजुम (FY)

Scientific Stories/ Nobel Leurates

रुपचंद्र (TY)
सुनिल (TY)
संध्या (SY)
युसेरिया (SY)
आफ्रिन (FY)
आदिती (FY)
प्रियांका (FY)

What After BSc...?

दिगंबर (TY)
श्रद्धा (TY)
प्राची (SY)
स्निग्धा (FY)
दिक्षा (FY)
मुदिता (FY)
सुशांत (FY)

Fellowship/ Scholarship /Internship

युक्ता (TY)
अंकिता (TY)
जान्हवी (SY)
अंकिता (SY)
प्रदीप (SY)
वेदांशु (SY)
स्वप्निल (FY)

Fun Facts

आदित्य (TY)
माधुरी (TY)
ऐश्वर्या (SY)
योगेश (SY)
श्रुती (FY)

Alumni Of Biotechnology

करण (TY)
रेणू (TY)
सानिका (FY)
ऋतुजा (FY)
निता (FY)
हिना (FY)
आदर्श (FY)

Recent Ongoing Research...

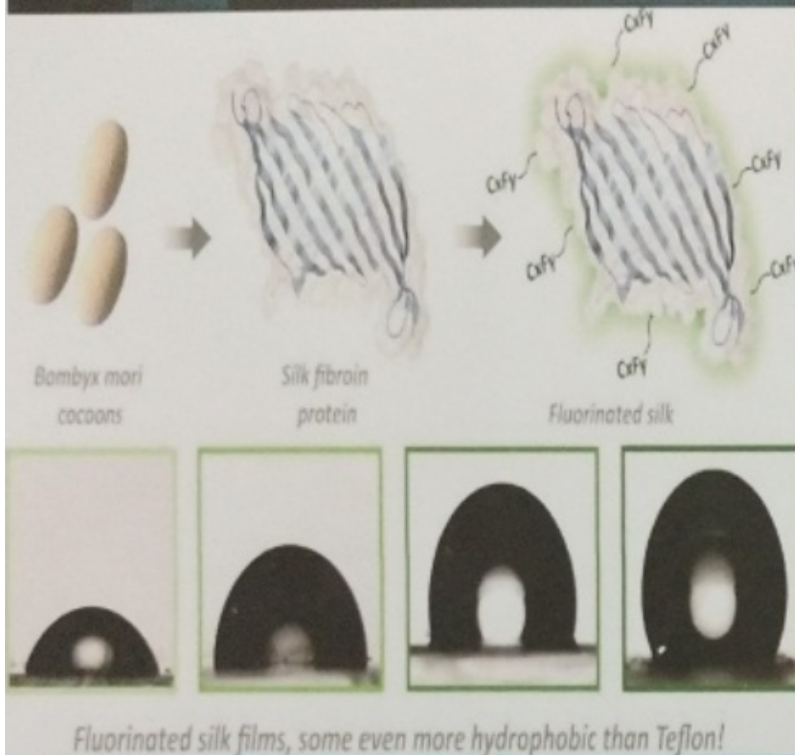
Insect pest management with sex pheromone precursors from engineered oilseed plant

Pheromones have become an environmentally friendly alternative to conventional insecticides for pest control. Most current pheromone-based pest control products target lepidopteran pests of high value crops, as today's manufacturing processes cannot yet produce pheromones at low enough costs to enable their use for lower-value crops, especially commodity crops.

Camelina sativa seeds genetically modified to express (Z)-11-hexadecenoic acid, a sex pheromone precursor of several moth species, provided the oil from which the precursor was isolated, purified and transformed into the final pheromone. Trap lures containing this pheromone were then assessed for their capacity to manage moth pests in the field. Plant-derived pheromone lures proved equally effective as synthetic pheromone lures in monitoring the diamondback moth, Plutella xylostella, in cabbage and disrupting mating of cotton bollworm, Helicoverpa armigera, in common bean fields. Our study demonstrates the biological efficacy and economic feasibility of pheromone production in plant factories by metabolic engineering of an oilseed crop.

For more information visit : <http://www.nature.com/article/s41893-022-00949-x>

Chemical modification of silk proteins



Researchers at Tufts University have developed a method to make silk-based materials that refuse to stick to water, or almost anything else containing water for that matter. In fact, the modified silk, which can be moulded into forms like plastic, or coated onto surfaces as a film, has non-stick,

properties that surpass those of non-stick surfaces typically used on cookware, and it could see applications that extend into a wide range of consumer products, as well as medicine.

Silk is a natural fiber spun by moths and has been used for thousands of years to make durable and fine fabrics and surgical sutures to close wounds.

More recently, scientists have learned to break down the fibers to their basic protein element silk fibroin and reconstitute it into gels, films, sponges, and other forms to create everything from implantable orthopedic screws to textile inks that change color in response to body chemistry.

SCIENTIFIC STORIES



• KAROLY EREKY

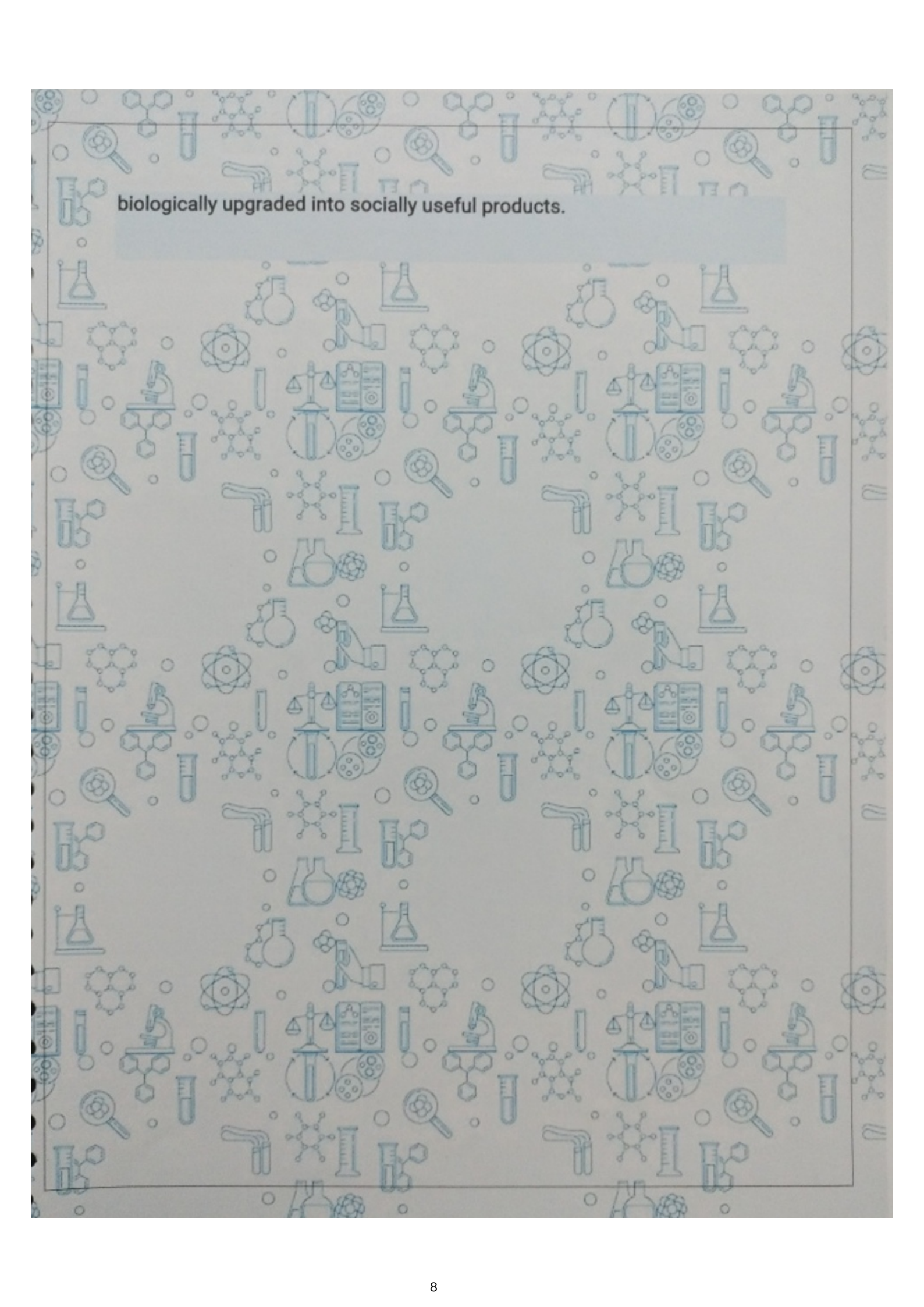
Karoly Ereky (1878-1952) was a Hungarian agricultural engineer. The term 'biotechnology' was coined by him in 1919. He is regarded by some as the "father" of biotechnology.

In early days he worked as machine designer for several paper and food industry companies in Vienna, Austria until 1905. He moved to Budapest and became an assistant professor in József Technical University. In 1919 he became the Hungarian Minister of Food. He wrote over one hundred publications which were written in Hungarian and published in German. Ereky was also proficient in speaking both German and English.

In 1922 he wrote a book on the mechanism of chlorophyll and how it can be used for animal feeding. In 1925 he wrote a book on leaf proteins as a possible food source which he also promoted as a commercial product.

Ereky coined the word "biotechnology" in Hungary during 1919 in a book he published in Berlin. In that book, he described a technology based on converting raw materials into a more useful product.

He built a slaughterhouse for a thousand pigs and also a fattening farm with space for 50,000 pigs, raising over 100,000 pigs a year. The enterprise was enormous, becoming one of the largest and most profitable meat and fat operations in the world. Ereky further developed a theme that would be reiterated through the 20th century: biotechnology could provide solutions to societal crises, such as food and energy shortages. For Ereky, the term "biotechnology" indicated the process by which raw materials could be

The background of the page is a repeating pattern of light blue scientific icons. These icons include various pieces of laboratory glassware such as flasks, beakers, and test tubes, as well as symbols for chemical structures, molecular models, and scientific instruments like microscopes and balances. The icons are scattered across the entire page, creating a dense, thematic texture.

biologically upgraded into socially useful products.

What After BSc...?



Confused about what to do after B.Sc..?
Here is the better option for you...

G.A.T.E.
Graduate Aptitude Test in Engineering

Graduate Aptitude Test in Engineering (GATE) is an examination conducted in India that primarily tests the comprehensive understanding of various undergraduate subjects in engineering and science for admission into the Masters Program and Job in Public Sector Companies.

GATE 2023 NOTIFICATION :-

- Release of GATE notification 2023 : 27th July 2022
- GATE 2023 Registration Start Date : 30th August 2022
- Last date of Application : 30th September 2022
- Last date with late fee : 7th October 2022
- Admit card release Date : 3rd January 2023
- GATE 2023 Exam Date : 4th, 5th, 11th & 12th February 2023
- Result Date : 16th March 2023



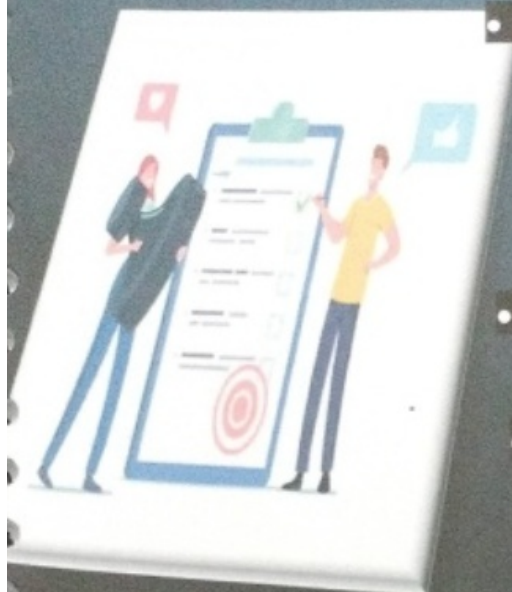
EXAM FEE :

CATEGORY	AMOUNT	LATE FEE
Male (General/OBC/ Others)	Rs 1700 /-	Rs 2200 /-
Female	Rs 850 /-	Rs 1350 /-
SC/ ST/ PWD	Rs 850 /-	Rs 1350 /-

Eligibility Criteria :

- Indian students and Foreign or NRIs students can also appear for Gate
- There is no upper age limit
- A candidate who is currently studying in the 3rd or higher years of any undergraduate degree program. Or A candidate who has already completed any government approved degree program in Engineering / Technology / Architecture / Science / Commerce / Arts is eligible for appearing in the GATE 2023 exam.

DOCUMENTS REQUIRED FOR APPLICATION



- Passport size photograph in the white background & Signature in running handwriting
 - Photo ID Proof & Category Certificate wherever applicable
- Education qualification documents –
 - Qualifying degree mark sheets have to be submitted by the applicants.
- Qualifying degree final year appearing candidates can provide their previous semester exam mark sheet.
- Provisional mark sheet of those applicants will be accepted who have passed their qualifying degree exam and are still awaiting their degree certificates.

EXAM PATTERN

Language of examination	English
Mode of examination	Computer based test (CBT)
Combination of TWO Papers Allowed	BM (Biomedical Engineering), XL (Life Sciences): Allowed as the Second Paper, if primary paper is biotechnology.
Time duration	3 hours
Maximum marks	100
Sections	General Aptitude (GA) + Candidate's Selected Subject
Type of questions	Multiple Choice Questions (MCQ) Multiple Select Questions (MSQ) Numerical Answer Type (NAT) Questions
Number of questions	10 (GA) + 55 (subject) = 65 Questions
Pattern of questions	GA : $5 \times 1 + 5 \times 2 = 15$: 5 questions carrying 1-mark each and 5 questions carrying 2-marks each Subject: $25 \times 1 + 30 \times 2 = 85$: 25 questions carrying 1-mark each and 30 questions carrying 2-marks each
Distribution of Marks	General Aptitude: 15 Marks + Engineering Mathematics: 13 Marks + Subject Questions: 72 Marks
Marking Scheme	Total 100 marks
Negative Marking	For a wrong answer chosen in a MCQ, there will be negative marking. For 1-mark MCQ, 1/3 mark will be deducted for a wrong answer. Likewise, for 2-mark MCQ, 2/3 mark will be deducted for a wrong answer.

SYLLABUS :

- The Question paper will have 2 parts : General Aptitude & biotechnology
- The biotechnology section will comprise 5 sections :
- Engineering Mathematics
- General Biotechnology
- Genetics & cellular & Molecular biology
- Fundamentals of Bioprocessing engineering
- Bioprocessing Engineering & process Biotechnology

Books :

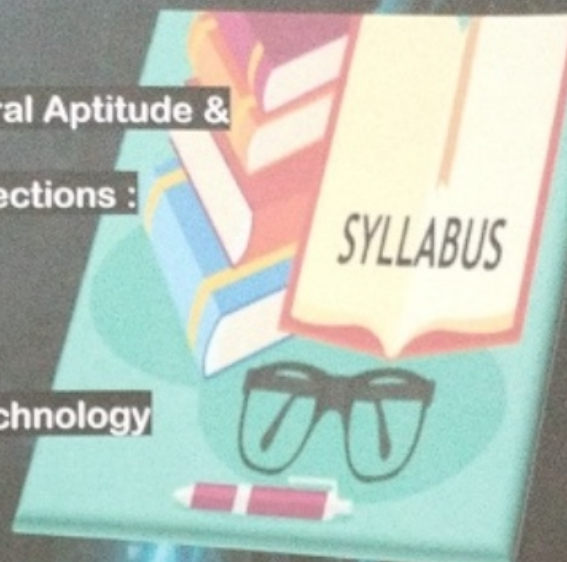
1. Biotechnology - Pranav Kumar
2. Fundamentals of Biochemistry –Lehninger
3. Principle of Bioprocess Engineering - P. Doran
4. GATE Biotechnology - GK Publishers
5. GATE General Aptitude and Mathematics - GK Publishers
6. Immunology – kuby
7. Bioprocess Engineering - Schuler & Kargi
8. Plant Biotech –Slater

SOME BENEFITS OF QUALIFYING GATE EXAM

- Gateway For post graduation program
- Research Institute Recruitment offer
- Can Study Abroad
- Attractive Job Offers
- Getting jobs in PSU Sectors
- Teaching job
- Opportunities for Sponsorship
- Chances of getting placed in renewed Foreign Companies

IMP LINK

- Exam Centers - <https://www.collegedekho.com/exam/gate/exam-centres>
- Exam Syllabus - <https://www.google.com/amp/s/engineering.careers360.com/articles/gate-syllabus-for-biotechnology/amp>
- Previous Year Paper - <https://pathfinderacademy.in/gate-biotechnology-previous-year-question-papers.html>



The Malhotra Weikfield Foundation

The Program provides full scholarships to over 125 students per year for under Graduate (Bsc) and post graduate (MSc) studies, for students of high merit, especially from the rural areas of Maharashtra, who lack the financial ability to carry on studies in these fields.

In the view of the socio-culture context, where financially challenged families neglect higher education of girl students, the Malhotra Weikfield Foundation Scholarship programme gives a strong preference to female students wishing to pursue higher studies in pure sciences.

The pure Scholarship Programme was launched by Malhotra Weikfield Foundation (MWF) in the year 2007 in order to promote the study of pure and basic Sciences, which are extremely important for the advancement and growth of the nation.

The key focus is to provide students from disadvantaged backgrounds an opportunity to study without being limited by financial circumstances.

You also get benefit and grow from a strong alumni network that is spread across industries and geographics. This unique bond is one that is always a helping hand and will nurture your growth.

Address

3A, 3rd floor, Vascon Weikfield Chambers, Shri Satpal Malhotra Marg, Nargar Road, Behind Novotel hotel, Pune, Maharashtra 411014.

Contact 02066478300

For further information Visit: <http://malhotraweikfieldfoundation.in/>

Alumni Of Biotechnology

Name of Alumni: Miss.Zebatarannum Shamshuddin Mulla

Batch: April 2017-2018

University Rank: 1)Secured 3rd rank in BSc.
Biotechnology (optional)
Shivaji University, kolhapur.
2) 2 nd rank in intercollegiate
Biotechnology Quiz
competition,shivaji University,
kolhapur.



Current Job/Status: Consultant at compass food
consultancy teaching experience
at Kamala college, kolhapur in
B.voc.food.

Academic Qualifications: Master of science, Department of food science
technology, Shivaji University 2019.

Bachelor of science, Shivaji University 2017.

Publications: 1) Aayush International Interdisciplinary Research
Journal On "Emerging cloud kitchen" Concept During
Post Pandemic.

Award of Honours: Worked as member of board of studies of B.voc.food .

Contant Details: Email id :- Zebatarannummulla@gmail.com

Alumni Of Biotechnology

Name of Alumni: Mr.Sachin Shivaji More

Batch: April 2012 - 2013

University Rank: 2nd rank in B.SC (Biotechnology)
Shivaji University, Kolhapur. April
2012-2013.

1st rank in M.SC wine brewing
and alcohol technology, Savitribai
phule University, Pune. June
2013-2015.



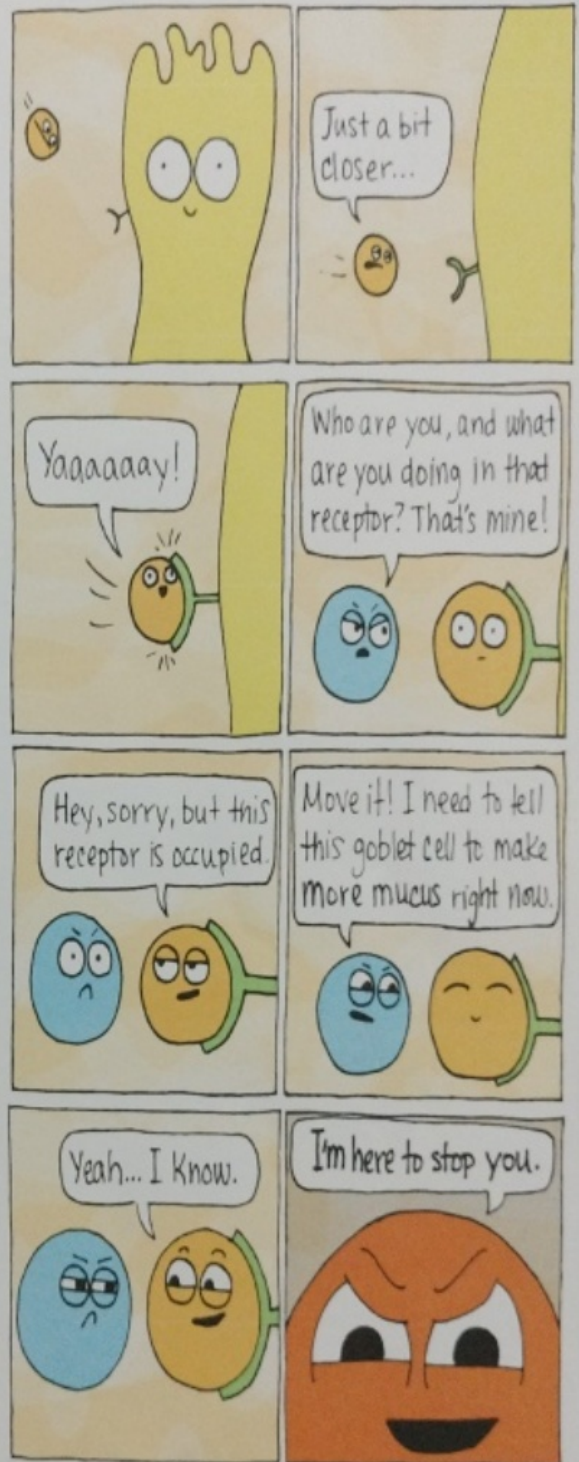
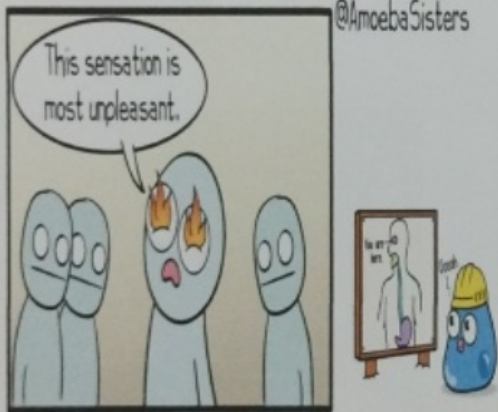
Current Job/Status: plant handling, Beer transfer by
an technical method, excellent
in inline carbonation, recipe
development.

Academic Qualifications: 1) Master of science, wine Brewing and
Alcohol technology Savitribai phule
University,Pune.
2) Bachelor of science, Biotechnology Shivaji
University, Kolhapur.

Award of Honours: 1)Secured 1 st rank in M.SC Wine Brewing and
Alcohol technology Savitribai phule University,Pune.
2) secured 2 nd rank in B.SC Biotechnology Shivaji
University, Kolhapur.

Contact Details: Email id :- sachinmore2507@gmail.com

The Importance of Gene Regulation



How antihistamine works.
BEATRICE the BELLIGERENT

