Volume 5, Issue 2

April-June 2025

MOHINDER SINGH RANDHAWA LIBRARY
PUNJAB AGRICULTURAL UNIVERSITY

From the Desk of the University Librarian

Mohinder Singh Randhawa library caters to the information needs of PAU fraternity and students by utilizing the advanced technologies and resources in supporting research, teaching and extension programs of the university. It goes beyond the traditional library services by integrating digital resources and providing user's friendly interfaces. User can have single point access through dynamic online library portal for searching, accessing and managing varied kind of information. Features like high speed Wi-Fi facility, Online Public Access Catalogue and various digital resources like ONOS, KRISHIKOSH, E-books, PAU Repository, AIU e-library etc. provide seamless access to scholarly information which enhances user's learning experience. It also incorporates space for University events, workshops and other activities that help in fostering culture of learning and collaboration .

Yogita Sharma

Library Hours

(March—December)

9.00 AM to 9.00 PM on all working days

9.00 AM to 5.00 PM on all Saturdays, Sundays and Holidays

Do you know!

How do we measure an earthquake?

Earthquakes are measured by magnitude using the Richter scale. Charles Richter invented the Richter scale in 1935 and it became the universal way of measuring how strong an earthquake was.

The Richter scale is a set of numbers that is used to tell the power of an earthquake and is a logarithmic scale. For example, an earthquake with magnitude 3.0 is about 10 times the amplitude of an earthquake with a score of 2.0.

Accessible at https://www.thefactsite.com/what-causes-an-earthquake/

Interesting Facts

When we invented fireworks?

Experts believe that the earliest form of fireworks dates back to around 200 BC, in ancient China. Fast forward to sometime around 600 to 900 AD, Chinese alchemists invented gunpowder by combining charcoal, potassium nitrate, and sulphur.

At first, fireworks were mainly one color, orange. Over the years, alchemists figured out how to add extra colors. The science behind it is wonderfully simple, too! When exposed to high heat, many metals will burst into a colorful flame. So, all the pyrotechnicians had to do was add specific metals to the gunpowder mix to achieve the desired effect.

Accessible at https://www.thefactsite.com/fireworks-colors-facts/

Inside this issue

"“Whenever you find yourself on the side of the majority, it is time to reform (or pause and reflect)**.” — Mark Twain**

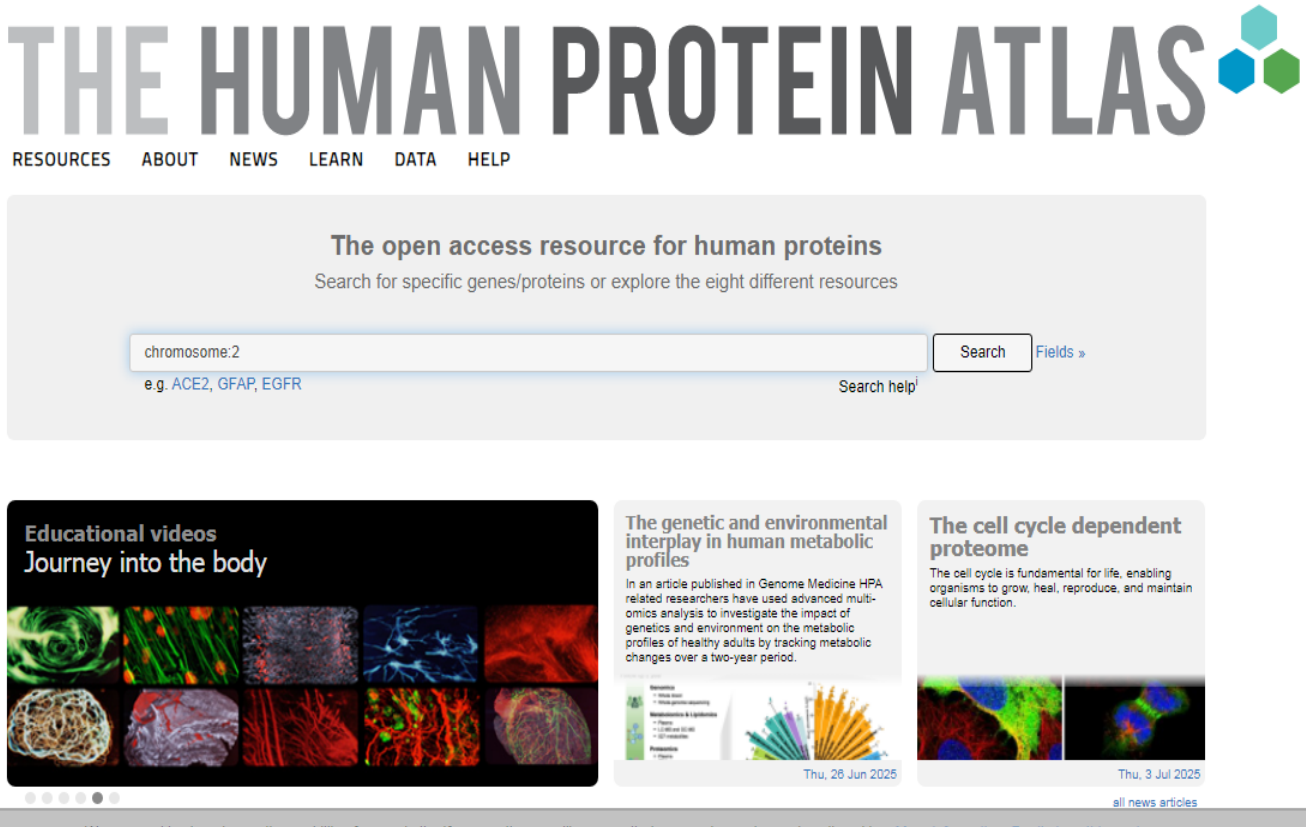
Contact us at: *librarian@pau.edu; 0161-2407197* *@msr_library*

The Human Protein Atlas

The Human Protein Atlas is a Sweden-based program initiated in 2003 with the aim to map all the human proteins in cells, tissues, and organs using an integration of various omics technologies, including antibody-based imaging, mass spectrometry-based proteomics, transcriptomics, and systems biology. All the data in the knowledge resource is open access to allow scientists both in academia and industry to freely access the data for exploration of the human proteome.
The Human Protein Atlas consists of eight separate resources, each focusing on a particular aspect of the genome-wide analysis of the human proteins:

1. The **Tissue** resource, showing the distribution of the proteins across all major tissues and organs in the human body
2. The **Brain** resource, exploring the distribution of proteins in various regions of the mammalian brain
3. The **Single Cell** resource, showing expression of protein-coding genes in immune cells and human single cell types based on bulk and single cell RNA-seq
4. The **Subcellular** resource, showing the subcellular localization of proteins in single cells
5. The **Cancer** resource, showing the impact of protein levels for the survival of patients with cancer
6. The **Blood** resource, describing proteins detected in blood and showing protein levels in blood in patients with different diseases
7. The **Cell line** resource, showing expression of protein-coding genes in human cancer cell lines
8. The **Structure & Interaction** resource, showing predicted 3D structures and exploring protein-coding genes in the context of protein-protein and metabolic interaction networks.

https://www.proteinatlas.org/>>Enter keyword or Select from Resources >>Click on the required field

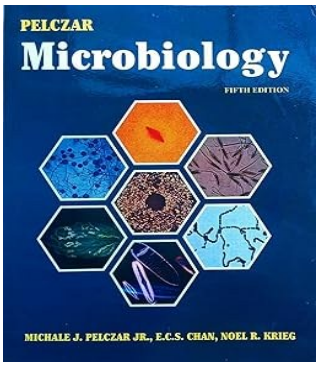


Current Arrivals

Title: Microbiology

Authors: Michal J. Pelczar, E.C.S.Chan and Noel R. Krieg

This text by the well-known authors of 'Microbiology: Concepts and Applications' emphasizes the importance of integrating new knowledge gained through basic research with applied research and development programs. One of the main features of this text is a presentation of the classification of bacteria in a totally new format. Material on metabolism, bacterial genetics, and genetic engineering and reorganized the section on microorganisms and disease.



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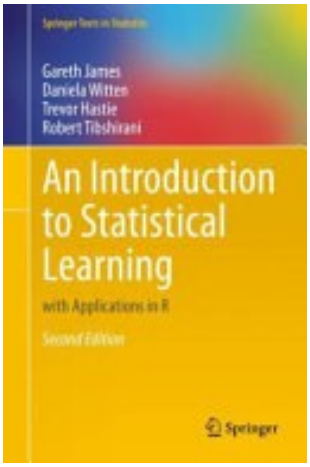

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Title: Introduction to Statistical Learning

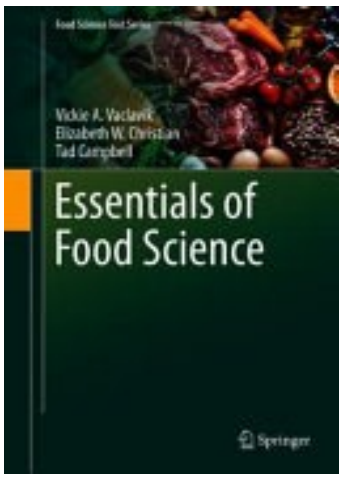
Authors: Gareth James, Daniela Witten, Trevor Hastie, Rob Tibshirani

As the scale and scope of data collection continue to increase across virtually all fields, statistical learning has become a critical toolkit for anyone who wishes to understand data. An Introduction to Statistical Learning provides a broad and less technical treatment of key topics in statistical learning. This book is appropriate for anyone who wishes to use contemporary tools for data analysis.
The first edition of this book, with applications in R (ISLR), was released in 2013. A 2nd Edition of ISLR was published in 2021. It has been translated into Chinese, Italian, Japanese, Korean, Mongolian, Russian, and Vietnamese. The Python edition (ISLP) was published in 2023.
Each edition contains a lab at the end of each chapter, which demonstrates the chapter's concepts in either R or Python..

Title: Essential of Food Science

Author: **Vickie A Vaclavik and Elizabeth W. Christian**

The fourth edition of this classic text continues to use a multidisciplinary approach to expose the non-major food science student to the physical and Chemical composition of foods. Additionally, food preparation and processing, food safety, food Chemistry, and food technology applications are discussed in this single source of information.
The book begins with an introduction to food components, quality and Water. Next, it addresses Carbohydrates in food, starches, pectins and gums. Grains: cereals, flour, rice and pasta, and vegetables and fruits follow.
proteins in food, meat, poultry, fish, and dry beans; eggs and egg products, milk and milk products as well as fats and oil products, food emulsions and foams are covered. Next, sugar, sweeteners, and confections and a Chapter on baked products batters and dough is presented.
a new section entitled aspects of food processing covers information on food preservation, food additives, and food packaging. Food safety and government regulation of the food supply and labelling are also discussed in this text.



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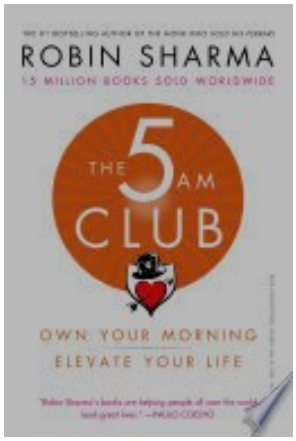
Great Reads



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Title: The 5 AM Club – Own Your Morning. Elevate Your Life

Author: Robin Sharma

Legendary leadership and elite performance expert Robin Sharma introduced The 5 AM Club concept over twenty years ago, based on a revolutionary morning routine that has helped his clients maximize their productivity, activate their best health and bulletproof their serenity in this age of overwhelming complexity.

Now, in this life-changing book, handcrafted by the author over a rigorous four year period, you will discover the early-rising habit that has helped so many accomplish epic results while upgrading their happiness, helpfulness and feelings of aliveness.

Through an enchanting—and often amusing—story about two struggling strangers who meet an eccentric tycoon who becomes their secret mentor.

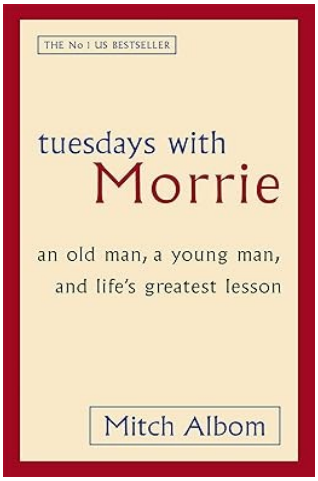
Title: Tuesday with Morrie

Author: Mitch Albom

Maybe it was a grandparent, or a teacher or a colleague. Someone older, patient and wise, who understood you when you were young and searching, and gave you sound advice to help you make your way through it. For Mitch Albom, that person was Morrie Schwartz, his college professor from nearly twenty years ago.

Maybe, like Mitch, you lost track of this mentor as you made your way, and the insights faded. Wouldn't you like to see that person again, ask the bigger questions that still haunt you? Mitch Albom had that second chance. He rediscovered Morrie in the last months of the older man's life. Knowing he was dying of ALS - or motor neurone disease - MItch visited Morrie in his study every Tuesday, just as they used to back in college. Their rekindled relationship turned into one final 'class': lessons in how to live.

Tuesday with Morrie is a magical chronicle of their time together, through which Mitch shares Morrie's lasting gift with the world.



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Call No.: HI FIC P75G

Title: Gaban (*In Hindi*)

Author: Munshi Premchand

In Gaban, Premchand focused on highlighting Class and gender issues. It tells the story of Ramanath, who is handsome, pleasure-seeking, boastful, and morally weak. He tries to make his wife Jalpa happy by gifting her jewelry which he can't really afford to buy with his meager salary, becomes indebted, which ultimately forces him to commit embezzlement. It is considered Premchand's best work, after Godaan.

Hem Singh Pruthi : An Imperial Entomologist

Hem Singh Pruthi (23 February 1897 – 23 December 1969) was an Indian entomologist who served as Imperial Entomologist, being the first native Indian in that position.

He was born at Begowala, Sialkot where his father Dr Bhagat Singh Pruthi worked in the Police and Jail Hospital at Gujranwala. He studied locally and completed his MSc at the Government College in Lahore and joined Peterhouse, Cambridge, where he was a Charles Abercrombie Smith Student and obtained a Ph.D. in 1924. Pruthi received a Sc.D. from the University of Cambridge in 1943. He then became an assistant superintendent at the Zoological Survey of India at Calcutta. He worked mainly on the Hemiptera. He then joined the Indian Agricultural Research Institute and became the Imperial Entomologist, succeeding T.B. Fletcher in 1934. In 1938 he founded the Entomological Society of India. Pruthi's work during this period was mainly on insects of economic importance. He was a plant protection advisor to the Government of India and helped establish a locust warning system. He retired in 1953. In 1963 he published a *Textbook of Agricultural Entomology*.

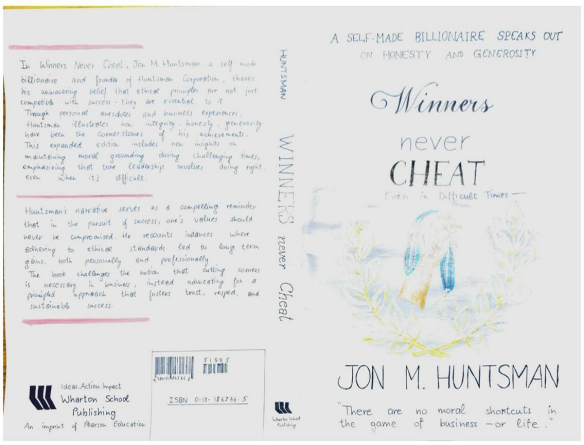
A number of genera of hemipterans have been named after him including *Pruthiana*, *Pruthiorosius*, and *Pruthius*. His student M.S. Mani named a fly genus *Pruthidiplosis* after him.A species of Indian lizard, *Subdoluseps pruthi*, is named after him.

Imperial Entomologist was a position in British India for an entomologist, it was created mainly for applied entomology in pest control and for utilization of useful insects such as honey bees, lac insects, and who was also involved in research and developing control measures against insects of veterinary and medical importance. A second position was created initially but that was later redesignated as Imperial Pathological Entomologist. Both positions were abolished after Indian independence in 1947.

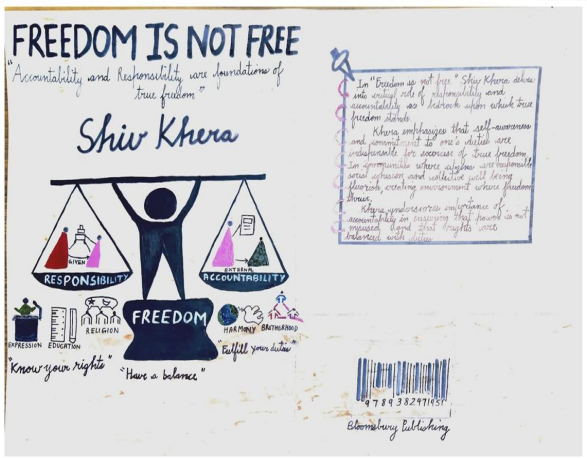
World Book and Copyright Day - Highlights

M.S.Randhawa Library, PAU celebrated World book Day on 23rd April, 2025. During this event a competition of PAU students on book cover designing was organized. Total of 11 students participated in the competition. Prizes were given to first, second and third position. Dr. Nirmal Jaura, Director Students' Welfare, was the Chief-guest of this function. Dr. G.S. Miglani, retired Professor of Genetics an eminent writer and Sh. Gurpreet Singh Toor, retired IPS was the Guest of Honour. They motivated the students towards developing reading habits and importance of books in our lives. Dr Usha Nara delivered a lecture on copyright. Through this event students were also guided towards scientific approach to writing.

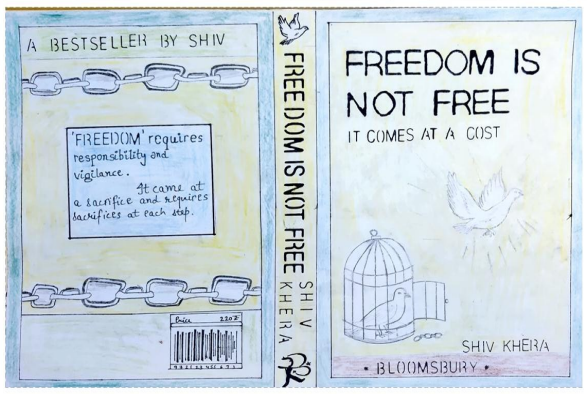
BOOK COVER DESIGNING COMPETITION –2025



First Prize: M/s Sofia; L-2024-A-29-BTFT



Second Prize: M/s Sukhdeep Kaur; L-2022-BS-116-D



Third Prize: Mr. Parth Sharma; L-2023-A-282-M