



September 29, 2025

To : Acting Dean of Academic Affairs

From : CPC Chairperson Wt

Subject : 2024 - 2028 General Catalog Addendum #8

The following are changes/corrections for the 2024 - 2028 General Catalog:

The College received the Board of Trustees approval and ACCJC accreditation approval to offer a four year degree, a Bachelor of Science in Science. Therefore, the following changes need to be made:

- Page 19 – The college offers associate degrees in twenty-one (21) areas and one (1) bachelor degree in the science area in order to meet the needs of the Micronesian community.
- Under School of Arts and Science, add Science
- Page 30 – Admissions to any program at Palau Community College is made after a careful review of admission applications and all supporting documents. The criteria are as follows:

For the associate degrees:

1. The student must have successfully completed high school or college where English was the language of instruction.
2. The student must submit a copy of the official transcript from the high school or college last attended with at least a cumulative GPA of 2.0.

For the bachelor's degree in science, a student must meet one of the following requirements:

1. Be a high school or adult high school graduate with a minimum cumulative grade point average of 2.5.
 2. Possess a HiSET diploma with a minimum total scaled score of 45 on all five sets.
 3. Possess a GED diploma with a minimum total score of 145 on each subject.
 4. Be a currently enrolled student with a minimum cumulative grade point average of 2.5.
 5. Possess an associate degree from an accredited post-secondary institution. Applicant must provide official transcript for the institution where associate degree was earned.
- Page 52 – The following needs to be inserted after the Associate of Technical Studies degree information:

BACHELOR OF SCIENCE IN SCIENCE DEGREE

The Bachelor of Science in Science degree program is a multidisciplinary program designed to expand the scope of science degree offerings at Palau Community College. It emphasizes both biological and physical sciences, equipping students with a foundation in essential scientific principles. The comprehensive curriculum not only prepares graduates for immediate employment opportunities, but will also equip them to thrive in an ever-evolving workforce. Moreover, it will lay a strong foundation for lifelong learning and adaptability, including enabling them to pursue postgraduate degrees.

Entrance Requirements – to enter the Bachelor of Science in Science program, a student must meet one of the following:

1. Be a high school or adult high school graduate with a minimum cumulative grade point average of 2.5.
2. Possess a HiSET diploma with a minimum total scaled score of 45 on all five sets.
3. Possess a GED diploma with a minimum total score of 145 on each subject.
4. Be a currently enrolled student with a minimum cumulative grade point average of 2.5.
5. Possess an associate degree from an accredited post-secondary institution. Applicant must provide official transcript for the institution where associate degree was earned.

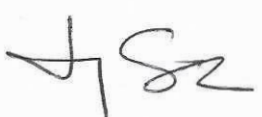
Exit Requirements: To earn the Bachelor of Science in Science degree, students must meet the following criteria:

1. Satisfactorily complete all program requirements. Degree program, general education, and other required courses for each major are specified under “Programs and Courses.”
2. Have a cumulative GPA of at least 2.0.
3. Have a grade of C or better in each required program course and each other required course.
4. Residency: Final 12 credits must be taken on PCC campus. The residency requirement may be waived for cause at the option of the Vice President of Education and Training.
5. File an application for graduation. Refer to the “Application for Graduation” section of the catalog for complete details.
6. Fulfill all financial obligations to the College.

The Bachelor of Science in Science program degree requirements with the program description and PLOs and the course descriptions are attached. Degree requirements need to be added after the **STEM program** which is found on page 75 and before the **LIBERAL ARTS program** which is found on page 76. Course descriptions need to be added with the course descriptions which begin on page 91.

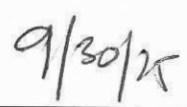
A copy of this addendum will be posted in the college website: www.palau.edu.

✓
____ Approved



Jay Olegeriil
Acting Dean, Academic Affairs

____ Disapproved



Date

Attachment: 1

CC: College Board of Trustees
College President
President, Associated Students of Palau Community College
President, Faculty Senate Association
President, Classified Staff Organization
Appropriate Bulletin Boards
All College Offices and CPC Members/file

BACHELOR OF SCIENCE IN SCIENCE DEGREE

Built on the foundation of the Associate of Arts in STEM Discipline, the Bachelor of Science in Science degree pathway blends biological and physical sciences into a multidisciplinary experience. This program integrates biological and physical sciences to offer students a broad and cohesive understanding of scientific principles and their interrelated applications. Through a comprehensive curriculum, students engage in core coursework across life and physical sciences to gain broader, and more integrated understanding of the complexity and interconnectedness of science issues. The program also emphasizes cross-disciplinary by incorporating courses in information technology, mathematics, and general education courses, thereby providing students with a versatile academic foundation.

Science (SC)

The Bachelor of Science in Science degree program is a multidisciplinary program designed to expand the scope of science degree offerings at Palau Community College. It emphasizes both biological and physical sciences, equipping students with a foundation in essential scientific principles. The comprehensive curriculum not only prepares graduates for immediate employment opportunities, but will also equip them to thrive in an ever-evolving workforce. Moreover, it will lay a strong foundation for lifelong learning and adaptability, including enabling them to pursue postgraduate degrees.

At the completion of the program, students will be able to:

1. **Critical-Thinking and Problem-Solving Skills** - Apply knowledge, critical thinking, and problem-solving skills to analyze and solve complex scientific and technical problems in various disciplines including natural sciences and information technology.
2. **Quantitative Reasoning** - Utilize reasoning and mathematical skills to interpret data, perform calculations, and make informed decisions in scientific research and analysis
3. **Communication** - Demonstrate proficiency in oral and written communications by effectively incorporating aesthetic elements including visual imagery, figurative language, and creative presentation techniques to enhance overall impact and persuasiveness of their science awareness education message to diverse audiences in the scientific community and the general public.
4. **Awareness of Ethical and Social Issues Relating to Science Research & Technology** - Exhibit awareness of ethical and social issues related to scientific research and technology and apply ethical principles in decision-making and professional conduct within the field of science.

Bachelor of Science Degree

Required General Education Courses

CRITERIA	COURSE NUMBER & NAME	CREDITS
Written Communication	EN112 Freshman Composition	3
Oral Communication	SC319 Scientific Research Methods, Writing and Reporting	2
Quantitative Reasoning	MA105 Intermediate Algebra	3
Information Literacy	IT100 Computer Literacy	3
Critical Thinking	PH249 General Logic	3
College Success	SS100 Introduction to College	1
Human Sciences	HP181 First Aid/CPR	2
Human Systems & Organizations	SC410 Ethics and Policies in Science	3
Cultural Perspective	SS189 Introduction to Cultural Anthropology or CO201 Mass Media & Society	3
Capstone	SC470 Directed Research in Science	3
(exclude core required SC courses)		(8)
TOTAL GENERAL ELECTIVE CREDITS		18

Required Program Courses	Credits
SC109 Principles of Biology I	4
SC110 Principles of Biology II	4
SC119 Introduction to Physical Science	4
SC160 Chemistry I	4
SC161 Chemistry II	4
SC205 Physics I	4
SC206 Physics II	4
SC299 Biotechnology	4
SC310 Cellular and Molecular Biology	4
SC319 Scientific Research Methods, Writing and Reporting	2
SC329 Principles of Zoology	4
SC349 Botany	4
SC361 Organic Chemistry I	4
SC362 Organic Chemistry II	4
SC401 Genetics	4
SC410 Ethics and Policies in Science	3
SC419 Ecology	4
SC429 Evolution	3
SC470 Directed Research in Science	3
TOTAL CREDITS	71

Other Required Courses	Credits
EN114 Advanced Composition	3
IT105 PC Office Applications	3
IT110 Introduction to Programming	3
IT125 Programming I	3
IT301 Geographic Information Science and Systems	3
MA111 College Algebra	3
MA112 Trigonometry	3
MA121 Elementary Statistics	3
MA221 Calculus I	5
MA321 Biostatistics	4
TOTAL CREDITS	33
TOTAL CREDITS REQUIRED	122

Course Descriptions

IT301 Geographic Information Science and Systems (3)

This course is an introduction to geographic information science and systems (GISS). Through lectures and hands-on lab sessions, students will learn the principles of data acquisition and management, spatial analysis techniques, cartographic design, and how to use datasets to create maps customized to various purposes. Although ArcGIS Pro is the primary GIS application in this course, other applications are introduced. A final requirement for this course is a student-designed GIS project to synthesize knowledge, demonstrate key skills, and showcase ability to integrate GIS into everyday situations or practical issues. Key skills will also include written communication, planning and organization, and interpersonal communication. Pre: IT105 (2 credits lec, 1 credit lab)

MA321 Biostatistics (4)

The Biostatistics course serves as the second semester of a statistics sequence, focusing on statistical inference with an emphasis on its application in biological and health sciences. Students will learn statistical techniques and their applications in real-world biological and health-related contexts. The course covers a variety of topics, including hypothesis testing, confidence intervals, regression analysis, and analysis of variance. Students will also engage in hands-on data analysis using statistical software. Pre: MA121 (3 credits lec, 1 credit lab)

SC299 Biotechnology (4)

This course introduces the field of biotechnology, covering fundamental concepts, methodologies, and applications. Students will engage in hands-on laboratory component to develop skills in using and maintaining equipment relevant in a biotechnology lab. Laboratory procedures include solution preparation, dilutions, aseptic technique, DNA extraction from different organisms, learning proper protocols for using gel electrophoresis and Polymerase Chain Reaction (PCR) in laboratory investigations, as well as emphasis on biotechnology laboratory safety practices. Lectures support the laboratory activities. Pre: SC110 (3 credits lec, 1 credit lab)

SC310 Cellular and Molecular Biology (4)

This Cellular and Molecular Biology course covers a range of essential concepts that are fundamental to understanding the structure and function of cells, including the molecular processes that govern biological activities in living organisms. Students will examine the organization of cells, roles of cellular components, and the intricate biochemical pathways that sustain life. Key topics include cell theory, membrane dynamics, cellular communication, gene expression, and the molecular basis of heredity. Through laboratory experiments, students will gain experience in application of techniques such as microscopy, DNA analysis, and protein characterization. Pre: SC110 (3 credits lec, 1 credit lab)

SC319 Scientific Research Methods, Writing, and Reporting (2)

This Scientific Research Methods, Writing, and Reporting course aims to equip students with essential skill in scientific research methodologies, effective writing, and comprehensive reporting. Students will engage in the entire process, from formulating research questions to conducting literature reviews, collecting and analyzing data, and presenting findings. Emphasis will be placed on understanding the ethical considerations in research, mastering various writing styles (including writing proposals, research papers, and presentations), and utilizing digital tools for data collection and reporting. Pre: EN114 (2 credits lec)

SC329 Principles of Zoology (4)

Principles of Zoology is an introductory course. It is designed to give the student a basic understanding of zoology principles including evolution and diversity of the animal kingdom, comparative anatomy, taxonomy, and animal behaviors. Students will examine essential biological concepts that support life, investigate ecological factors that influences species distribution, and observe animal behaviors and interactions with other species within their environments. A one credit laboratory session provides hands-on experience in the proper techniques of collecting and preserving specimen for museum, using manuals and dichotomous keys to observe specific structures and identify species. Students will apply scientific research methods to analyze and solve scientific and technical problems in zoology. Pre: SC110 and SC319 (3 credits lec, 1 credit lab)

SC349 Botany (4)

This introduction to botany is a one-semester exploration of the world of plants. It provides comprehensive overview of plants and addresses some of the principal areas of botanical sciences. Key topics include plant form and function, regulation of growth and development including response to environment, plant diversity, classification and identification of flora in Palau and the region, and the cultural, economic, and ecosystem services of plants. A one credit lab is required. Lab puts emphasis on the physiology of plant cells, plant taxonomy, and the societal and cultural uses of plants. Student will learn to properly collect plant specimens and preserve them for museum collection. Pre: SC110, and SC319 (3 credits lec, 1 credit lab)

SC361 Organic Chemistry I (4)

This course is the first semester of a standard two-semester lecture with a weekly three-hour lab course in organic chemistry. Topics covered in this course include the nomenclature, structure, properties, and the synthesis, reactions, and reaction mechanisms of alkanes, alkenes, and alkynes. A compulsory one credit laboratory component each week puts emphasis on analytical techniques for product separation and purification, as well as on instrumentation as a tool for studying properties and characterization of the isolated organic compounds. Pre: SC161 (3 credits lec, 1 credit lab)

SC362 Organic Chemistry II (4)

Organic Chemistry II is a continuation of SC361 Organic Chemistry I with an emphasis on aromatic and carbonyl chemistry. The chemistry of alcohols, ethers, aldehydes and ketones, carboxylic acids and their derivatives, carbohydrates, and amines are discussed. Particular emphasis is placed on the study of reaction mechanisms, in an attempt to show similarities between apparently unrelated reactions. A compulsory one credit laboratory component each week introduces the student to the basic techniques employed in modern organic chemistry laboratories. Spectroscopy and chromatography are integrated into the lecture and laboratory. Compounds are analyzed using classical and instrumental methods. Pre: SC361 with a grade of C or better (3 credits lec, 1 credit lab)

SC401 Genetics (4)

This is a one semester course with a lab that takes an experimental approach to genetics. The course provides a rigorous foundation of principles of genetics that act at the molecular, organismal, and population levels. Topics will range from Mendelian and non-Mendelian mechanisms of inheritance, the molecular structure of DNA and chromosomes, DNA replication, gene transcription, gene regulation, genetics of viruses, genetic technologies, and medical genetics. In the lab, students will simultaneously train in scientific research methods and expand their understanding of genetic principles. Students will analyze genetic patterns, interpret data, and make connections between genotype and phenotype. Pre: SC310 with a C or better grade (3 credits lec, 1 credit lab)

SC410 Ethics and Policies in Science (3)

This course examines the intricate interaction between scientific practice, policy-making, and ethical considerations. As science increasingly influences public policy and societal norms, understanding the ethical implications of scientific research and technological advancements becomes essential. This course will provide students with a comprehensive framework for analyzing ethical dilemmas in science, exploring case studies in areas such as biotechnology, environmental sustainability, medical research, and artificial intelligence. Students will engage in critical discussions, develop analytical skills, and formulate policy recommendations that are ethically sound. By the end of the semester, students will be equipped to navigate the complexities of ethical decisions-making in scientific contexts and advocate for responsible practices in their future careers. Pre: SC319 (3 credits lec)

SC419 Ecology (4)

This course in ecology provides a comprehensive examination of the principles and practices of sustainability, with a focus on the interrelationships between humans and the environment. Through the exploration of key concepts such as sustainability principles, human impacts on Earth, causes of environmental problems, and environmentally sustainable societies, students will gain a deep understanding of the complexities of ecological systems and the importance of sustainable practices in maintaining environmental health. Pre: SC110 and SC319 (3 credits lec, 1 credit lab)

SC429 Evolution (3)

This course delves into the intricate mechanisms and principles of evolutionary biology, exploring the historical context, genetic foundations, and contemporary implications of evolution. Students will engage with core concepts such as natural selection, speciation, phylogenetics, and coevolution through a combination of lectures and collaborative projects. By examining real-world case studies and conducting simulations, students will develop critical thinking skills and a deeper understanding of how evolution shapes life on Earth, biodiversity, and influences species adaptation. Pre: SC401 (3 credits lec)

SC470 Directed Research in Science (3)

Directed Research in Science is the capstone course for the Bachelor of Science in Science degree program. Students will engage in independent research while adhering to ethical standards and safety protocols under the guidance of a faculty and the mentorship of a scientist or a science researcher. The course structure provides the opportunity for students to engage and apply proper research methodologies, sharpen critical thinking abilities by formulating research hypothesis, design experiment with clear methodology, data collection plan, and analysis strategy. Students will communicate research findings in written and oral formats, using proper scientific terminology to convey information and research findings to audiences in the scientific community and the general public. Pre: Completion of program's core science courses and a proposal submission (3 credits lab)