

SP CHEMICAL & LIFE SCIENCES

Applied Chemistry
Biomedical Science
Chemical Engineering
Common Science Programme
Food Science & Technology
Optometry
Perfumery & Cosmetic Science

SP Singapore Polytechnic



FIRST POLY
FUTURE INSPIRED
EST 1954

APPLIED CHEMISTRY

DAPC – S64



Unveiling the Mysteries of Chemical Marvels

Discover the mysterious and captivating properties of chemicals, drugs and materials in this exciting applications-based journey. As the first course in Singapore dedicated to building a strong foundation in chemistry, Diploma in Applied Chemistry (DAPC) provides you the versatility to excel in various chemistry-related sectors.

+ An environment that encourages research and exploration

Thrive in a nurturing environment that provides you with opportunities to synthesise and test chemicals, drugs, and materials while pushing the boundaries of investigative chemistry.

+ A holistic and immersive learning journey

Grow your skills progressively throughout the programme. In Year 1, you'll acquire the fundamentals of chemistry principles. In Year 2, you'll gain practical skills in chemical investigations and interpreting real-life results. In your final year, you'll harness your creativity to develop and optimise new products or methods to improve lives.

+ A promising future ahead

Upon graduation, you'll be fully prepared to contribute to the chemical, pharmaceutical, and materials-related industries. Whether you choose to embark on a fulfilling career or pursue further studies in tertiary institutions, the Diploma in Applied Chemistry sets the stage for your success.

WHAT YOU CAN EXPECT

- Discover our state-of-the-art laboratory suites, designed for Analytical & Forensic Chemistry, Pharmaceutical Chemistry, and Materials Science. Immerse yourself in hands-on experimentation with cutting-edge equipment.
- Gain real-world experience through internship opportunities at relevant industries.
- Delve into ground-breaking research projects and work alongside experts in the industry at local or international institutions.
- Enjoy direct entry and advanced standing to renowned local and overseas universities.
- Explore a wide array of career options and pathways here.

SCHOLARSHIPS

- A*STAR Science Award
- Mitsui Chemicals Process Technology Study Award
- MOH Holdings Scholarships
- Singapore Polytechnic Scholarships

FURTHER STUDIES

Many of our graduates gain entry into degree programmes at local or overseas universities. Related degree programmes include Chemistry, Pharmaceutical Science, Materials Science and Engineering.

ENTRY REQUIREMENTS

Range of Net 2023 JAE ELR2B2: 4 – 9

Aggregate Type: ELR2B2-C

SUBJECT	GRADE
English Language	1 – 7
Mathematics (Elementary/Additional)	1 – 6
Any one of the following subjects:	1 – 6
• Biology	
• Biotechnology	
• Chemistry	
• Food & Nutrition / Nutrition & Food Science	
• Physics	
• Science (Chemistry, Biology)	
• Science (Physics, Biology)	
• Science (Physics, Chemistry)	

CAREER OPTIONS

- Application Chemist
- Assistant Engineer
- Chemical Technologist
- Chemist
- Environmental, Safety & Health Officer
- Materials Characterisation/Failure Analysis Specialist
- Process Designer
- Purchaser/Procurement Engineer
- Quality Assurance/Quality Control Laboratory Analyst
- Regulatory & Compliance Officer
- Research Assistant
- Sales/Business/Marketing Executive
- Technical Specialist



I was part of the Quality Control Support (QCS) department where I gained knowledge on good manufacturing practices, components and the flow chart of the chain of bioreactors. This knowledge was further enhanced and reaffirmed when I went back to SP for my final semester, where modules were easier to understand.

Chan Yong Hau

DAPC Gold Medallist

Megachem Gold Medal Recipient
Internship at Novartis



WHAT YOU'LL STUDY

The Diploma in Applied Chemistry is a three-year full-time programme.



FIRST YEAR

- Basic Mathematics
- Biochemistry & Cell Biology
- Chemical Safety & Biosafety
- Chemistry I
- Chemistry II
- Chemistry & its Applications
- Common Core Modules
- Elective 1
- Engineering Mathematics
- Instrumental Analysis
- Introductory Food Science
- Microbiology & Genetics

SECOND YEAR

From Year 2, students are allowed to specialise in the area of their particular interest. They can choose from the following specialisations:

+ Materials Science Specialisation

- Chemistry III
- Common Core Modules
- Coatings & Elastomers
- Elective 2
- Elective 3
- Engineering Mathematics II
- Materials Characterisation
- Materials Laboratory Skills
- Materials Processing I
- Materials Processing II
- Metallic and Ceramic Materials
- Polymeric Materials
- Quality Assurance & Statistics

+ Industrial Chemistry & Pharmaceutical Science Specialisations

- Chemistry III
- Common Core Modules
- Elective 2
- Engineering Mathematics II
- Environmental and Water Technology
- Forensic Chemistry
- Further Chemistry I
- Further Chemistry II
- Laboratory Management
- Pharmacology & Pharmaceutical Chemistry
- Quality Assurance & Statistics

THIRD YEAR

+ Industrial Chemistry Specialisation

- Advanced Instrumental & Lab Techniques
- Advanced Organic Chemistry
- cGMP and Validation
- Elective 3
- Internship Programme
- Petrochemicals and its Applications
- Specialty Chemicals

+ Pharmaceutical Science Specialisation

- Advanced Instrumental & Lab Techniques
- Advanced Organic Chemistry
- Biopharmaceutical Engineering
- cGMP and Validation
- Elective 3
- Internship Programme
- Pharmaceutical Engineering

+ Materials Science Specialisation

- Internship Programme

ELECTIVES

The SP elective framework offers students options to pursue their passion and / or meet different career needs, and is an integral part of the holistic education we seek to provide to our students. The learning experiences of this elective framework help students in their development as self-directed, versatile, life-long learners, which are essential in today's volatile and changing societal as well as occupational landscape.

Students who are interested to explore additional new skills and abilities will have the opportunity to take up to five electives. Certificates and minors will be awarded when students complete a suite of related elective modules. Please visit <https://www.sp.edu.sg/sp/education/elective-modules> for details of this elective scheme and the full list of electives.

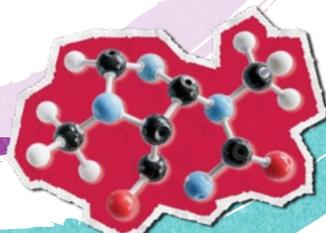
COMMON CORE CURRICULUM

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Through the Common Core modules, students will think critically about real-world problems, empathise with local and global communities and be challenged to effect change. For more information on the Common Core Curriculum, please visit <https://www.sp.edu.sg/sp/education/common-core-curriculum>.

All full-time diploma students are required to take a compulsory Education and Career Guidance module in SP. Students will take Education and Career Guidance – Personal Development (30 hours) in their first year.

All students are required to take one compulsory Wellness for Life (WFL) module for one semester in their first year in SP. In their second and third year, students may sign up for WFL module as an optional module.



BIOMEDICAL SCIENCE

DBS – S98



The Science that 'Saves Lives'

The Diploma in Biomedical Science (DBS) offers you the opportunity to make a positive impact on the health and well-being of our community. From disease management to developing new treatments and drugs, you'll be entering a vital field that plays a critical role in saving lives.

Our students can choose from three exciting specialisations:

● Medical Technology

Gain the skills to diagnose and manage human diseases by providing accurate and timely diagnosis with the use of medical technology.

● Cardiac Technology

Save human lives, test heart functions to diagnose and intervene in heart related diseases.

● Biotechnology

Harness the power of biological processes to improve lives and contribute to advancements and innovations in medical research and drug development.

The Diploma in Biomedical Science is recognised by the **American Society for Clinical Pathology (ASCP)**, USA.

WHAT YOU CAN EXPECT

- Get a head start with opportunities to intern at multinational biopharmaceutical companies, renowned laboratories including A*STAR institutes and top-ranking overseas universities.
- Gain authentic learning experiences by training with the National Heart Centre Singapore for Cardiac Technology.
- Take your pick from elective modules in Forensic Biology, Cytogenetics or Introductory Pharmacology to expand your interests.
- Enjoy direct entry and advanced standing at renowned local and overseas universities.
- Explore a wide array of career options and pathways available to our graduates.

FURTHER STUDIES

A high percentage of our graduates are offered admission to local universities. You have the flexibility to pursue Biomedical Sciences related programmes or other disciplines such as Medicine, Dentistry and Pharmacy. You may also be granted direct entry into the second or third year of degree programmes in international universities.

CAREER OPTIONS

- Assistant Biotechnologist
- Assistant Quality Control Laboratory Analyst
- Cardiac Technologist
- Clinical Research Coordinator
- Medical Technologist
- Phlebotomist
- Quality Assurance Assistant
- Research Assistant
- Sales and Marketing Executive
- Technical Specialist

ENTRY REQUIREMENTS

Range of Net 2023 JAE ELR2B2: 3 – 7

Aggregate Type: ELR2B2-C

SUBJECT	GRADE
English Language	1 – 7
Mathematics (Elementary/Additional)	1 – 6
Any one of the following subjects:	1 – 6
• Biology	
• Biotechnology	
• Chemistry	
• Food & Nutrition / Nutrition & Food Science	
• Physics	
• Science (Chemistry, Biology)	
• Science (Physics, Biology)	
• Science (Physics, Chemistry)	

SCHOLARSHIPS

- A*STAR Science Award
- EDB Scholarship
- MOH Holdings Scholarships
- SAF Merit Scholarship
- Singapore-Industry Scholarship
- Singapore Polytechnic Scholarships



I was lucky enough to have the opportunity to work with Professor Ewe, the Director of Echocardiography at NHCS. Learning about the intricacies and theory of echocardiography from such an esteemed professional was a once-in-a-lifetime experience. Discussing the fascinating case studies she had encountered was truly inspiring and deepened my interest in pursuing cardiology.

Jotham Wong

Lee Kuan Yew Award Recipient
DBS Gold Medallist

Alfred Roberts Edis Prize Winner
Internship at National Heart Centre Singapore



WHAT YOU'LL STUDY

The Diploma in Biomedical Science is a three-year full-time programme.



FIRST YEAR

- Basic Mathematics
- Biochemistry & Cell Biology
- Chemical Safety & Biosafety
- Chemistry I
- Chemistry II
- Chemistry & its Applications
- Common Core Modules
- Elective 1
- Engineering Mathematics
- Instrumental Analysis
- Introductory Food Science
- Microbiology & Genetics

SECOND YEAR

From Year 2, students are allowed to specialise in the area of their particular interest. They can choose from the following specialisations:

+ Medical Technology Specialisation

- Anatomy & Physiology
- Cell Biology Techniques
- Chemistry III
- Clinical Chemistry
- Common Core Modules
- Elective 2
- Immunology
- Medical Microbiology
- Molecular Techniques
- Project
- Statistics

+ Cardiac Technology Specialisation

- Anatomy & Physiology
- Cell Biology Techniques
- Chemistry III
- Clinical Chemistry
- Common Core Modules
- Elective 2
- Elective 3
- Immunology
- Medical Microbiology
- Molecular Techniques
- Statistics

+ Biotechnology Specialisation

- Anatomy & Physiology
- Biologics Processes I
- cGMP & Validation
- Chemistry III
- Common Core Modules
- Elective 2
- Health, Safety and Environmental Management
- Immunology
- Molecular Techniques
- Project

THIRD YEAR

+ Medical Technology Specialisation

- Elective 3
- Elective 4
- Elective 5
- Haematology
- Internship Programme
- Project

+ Cardiac Technology Specialisation

- Applied Cardiac Anatomy & Physiology
- Clinical Attachment
- Diagnostics & Intervention Cardiac Catheterisation
- ECG & Rhythm Disorders
- Echocardiography
- Electrophysiology & Pacemakers
- General Cardiology & Cardiac Disorders 1
- General Cardiology & Cardiac Disorders 2

+ Biotechnology Specialisation

- Elective 3
- Elective 4
- Elective 5
- Protein Methods
- Internship Programme
- Project

ELECTIVES

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CHEMICAL ENGINEERING

DCHE – S70



Catalysing Innovations, Empowering Sustainable Future

Chemical Engineering is a discipline that integrates sciences with applied mathematics and engineering principles. Here, you'll be empowered to investigate problems and design solutions and products using sustainable, cost-effective, safe and cutting-edge processes for the chemical industry.

In chemical engineering, you will learn about changing raw materials into useful products that you use every day in a safe and sustainable way. You will understand how to alter the chemical, biochemical or physical state of a substance to create many products from seaweed wine to natural dyes.

If you aspire to leave a lasting impact and shape the future, join our Diploma in Chemical Engineering (DCHE) course and be a catalyst for positive change.

SCHOLARSHIPS

- A*STAR Science Award
- Mitsui Chemicals Process Technology Study Award
- Singapore Polytechnic Scholarships

FURTHER STUDIES

Each year, more than half of our graduates are successfully accepted into well-established local and overseas universities. Many of them are also offered module exemptions or direct entry into the second or third year of their university degree programmes.

Our graduates can also apply for either a 2.5-year degree programme in chemical engineering that is offered by Technical University of Munich (TUM), Germany and Singapore Institute of Technology (SIT) or a two-year degree programme in chemical engineering that is offered by Newcastle University (NU), United Kingdom and SIT.

WHAT YOU CAN EXPECT

- Gain valuable industry exposure and network with industry professionals through internships at local and overseas chemical processing companies and institutions.
- Enjoy direct entry and advanced standing to renowned local and overseas universities.
- Internship opportunities at Shell, Sembcorp Industries and Proctor & Gamble.

CAREER OPTIONS

Biopharmaceutical Sector

- Assistant Biotechnologist
- Laboratory Analyst
- Production Technician
- Quality Assurance / Control Assistant

Chemical Sector

- Laboratory Technician / Technologist
- Process Technician
- Product Technologist

Workplace Safety Sector

- Environmental Management System Coordinator
- Process Safety Officer
- Workplace Safety and Health Coordinator

ENTRY REQUIREMENTS

Range of Net 2023 JAE ELR2B2: 7 – 14
Aggregate Type: ELR2B2-C

SUBJECT	GRADE
English Language	1 – 7
Mathematics (Elementary/Additional)	1 – 6
Any one of the following subjects:	1 – 6
<ul style="list-style-type: none">• Biology• Biotechnology• Chemistry• Computing / Computer Studies• Design & Technology• Electronics / Fundamentals of Electronics• Physics• Science (Chemistry, Biology)• Science (Physics, Biology)• Science (Physics, Chemistry)	



The main takeaway from my internship would be that I managed to have an inside look on how commissioning is being done on a plant. This event is not something commonly seen as many chemical plants are already built and operational. The skillset that I managed to gather from there would be able to help me in the long run as I step into the workforce.

Albie Tan

DCHE Gold Medallist

Internship at Sembcorp Industries Ltd



WHAT YOU'LL STUDY

The Diploma in Chemical Engineering is a three-year full-time programme.



FIRST YEAR

- Basic Mathematics
- Chemical Engineering Thermodynamics
- Chemistry I
- Chemistry II
- Common Core Modules
- Engineering Mathematics
- Fluid Flow and Equipment
- Heat Transfer and Equipment
- Introduction to Chemical Engineering
- Laboratory and Process Skills 1
- Laboratory and Process Skills 2

SECOND YEAR

- Chemical Engineering Design Calculations and Simulation
- Chemical Product Design and Development
- Chemical Reaction Engineering
- Common Core Modules
- Elective 1
- Elective 2
- Engineering Mathematics II
- Introduction to Chemical Product Design
- Process Instrumentation and Control
- Process Operation Skills 1
- Process Operation Skills 2
- Separation Processes

THIRD YEAR

- Biopharmaceutical Engineering
- Capstone Project
- Common Core Modules
- Elective 3
- Internship Programme
- Pharmaceutical Engineering
- Plant Design, Economics and Sustainable Development
- Process Plant Safety and Engineering Ethics

ELECTIVES

The SP elective framework offers students options to pursue their passion and / or meet different career needs, and is an integral part of the holistic education we seek to provide to our students. The learning experiences of this elective framework help students in their development as self-directed, versatile, life-long learners, which are essential in today's volatile and changing societal as well as occupational landscape.

Students who are interested to explore additional new skills and abilities will have the opportunity to take up to five electives. Certificates and minors will be awarded when students complete a suite of related elective modules. Please visit <https://www.sp.edu.sg/sp/education/elective-modules> for details of this elective scheme and the full list of electives.

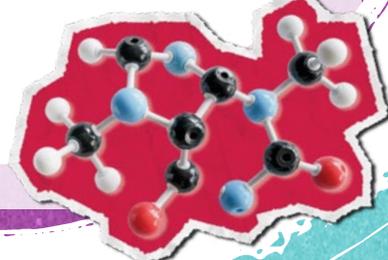
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All full-time diploma students are required to take a compulsory Education and Career Guidance module in SP. Students will take Education and Career Guidance – Personal Development (30 hours) in their first year.

All students are required to take one compulsory Wellness for Life (WFL) module for one semester in their first year in SP. In their second and third year, students may sign up for WFL module as an optional module.



COMMON SCIENCE PROGRAMME

DCSP – S28



Discover the Possibilities in Science

Unlock your passion for science and embark on a transformative journey of exploration with the Common Science Programme (DCSP).

Get hands-on exposure to diverse scientific disciplines

If you crave more exposure and experience to discover your true scientific calling, this is the platform for you. Immerse yourself in a curriculum that features curated taster modules and a Diploma Exposure Programme that will illuminate the diverse scientific disciplines awaiting your discovery.

WHAT YOU CAN EXPECT

DCSP students go through a common Year 1 curriculum as students from the Diploma in Applied Chemistry, Biomedical Science, Food Science & Technology and Perfumery & Cosmetic Science.

Armed with insights and knowledge, you'll be empowered to make an informed choice to pursue your diploma towards the end of Year 1, where you will be invited to rank your preferences among the four constituent full-time diploma courses offered by CLS:

- Diploma in Applied Chemistry (S64)
- Diploma in Biomedical Science (S98)
- Diploma in Food Science & Technology (S47)
- Diploma in Perfumery & Cosmetic Science (S38)

* Kindly note that the Diploma in Optometry and Diploma in Chemical Engineering, offered by the School of Chemical & Life Sciences, are not included in the Common Science Programme due to curriculum distinctions.

ENTRY REQUIREMENTS

Range of Net 2023 JAE ELR2B2: 3 to 10

Aggregate Type: ELR2B2-C

SUBJECT	GRADE
English Language	1 – 7
Mathematics (Elementary/Additional)	1 – 6
Any one of the following subjects:	1 – 6
<ul style="list-style-type: none">• Biology• Biotechnology• Chemistry• Food & Nutrition / Nutrition & Food Science• Physics• Science (Chemistry, Biology)• Science (Physics, Biology)• Science (Physics, Chemistry)	

DCSP students will then undergo a seamless transition into the Year 2 curriculum with their fellow peers whom had enrolled directly into the respective diploma courses from Year 1.

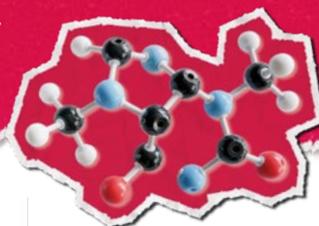
FURTHER STUDIES

Depending on the choice of diploma, DCSP students can continue to pursue their respective science degree programme at a local or international university.



WHAT YOU'LL STUDY

The Common Science Programme is a one year full-time programme, which forms the first year of students' three-year diploma journey in SP.



YEAR 1

Common Science Programme (S28)

Students begin their Science journey by going through a common first year curriculum

Towards the end of Year 1 Semester 2
Select 1 of 4 CLS diplomas to specialise

**YEAR
2 & 3**

Diploma in
Applied
Chemistry

S64

Diploma in
Biomedical
Science

S98

Diploma in
Food Science
& Technology

S47

Diploma in
Perfumery
& Cosmetic
Science

S38

Seamless transition into the year two curriculum with their peers who are enrolled directly into the respective diploma courses

FIRST YEAR

- Basic Mathematics
- Biochemistry & Cell Biology
- Chemical Safety and Biosafety
- Chemistry I
- Chemistry II
- Chemistry & its Applications
- Common Core Modules
- Elective 1
- Engineering Mathematics
- Instrumental Analysis
- Introductory Food Science
- Microbiology & Genetics

ELECTIVES

The SP elective framework offers students options to pursue their passion and / or meet different career needs, and is an integral part of the holistic education we seek to provide to our students. The learning experiences of this elective framework help students in their development as self-directed, versatile, life-long learners, which are essential in today's volatile and changing societal as well as occupational landscape.

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FOOD SCIENCE & TECHNOLOGY

DFST – S47



The Science that Spices up Lives

Ignite your passion for food and dive into the captivating realm where science meets taste!

Join us in the Diploma in Food Science & Technology (DFST) course and unlock the secrets behind every mouth-watering bite. Explore the entire journey of food, from its raw ingredients to the intricate processes of packaging and delivering finished consumer products.

Our industry-focused curriculum combines design thinking and hands-on projects to empower you to become a skilled food technologist who innovates and produces safe, healthy and irresistible food creations.

Are you ready to embark on an exciting journey to unravel the delicious mysteries behind the food we eat? Join us at the Diploma in Food Science & Technology course and unlock the secrets that make every bite a truly unforgettable experience!

FURTHER STUDIES

You can apply for related degree programmes at local or international universities such as:

- Bachelor of Science (Food Science and Technology) at NUS
- Degree in Biological Sciences/Chemical and Biomolecular Engineering/Chemistry and Biological Chemistry with a Second Major in Food Science and Technology at NTU
- Bachelor of Food Technology (Hons) or Bachelor of Professional Studies in Culinary Arts Management at SIT
- Bachelor of Science (Food Technology Major), University of Queensland

WHAT YOU CAN EXPECT

- Test out your concepts at the well-equipped facilities such as the Food Creation Lab, Dough and Roll Studio, Food Analysis Lab, Food Processing & Packaging Lab and Biotransformation Lab.
- In the second year, some of you will have the opportunity to be mentored by industry professionals in a work-based learning programme, the Industry Now Curriculum (INC), at SP's Food Innovation Resource Centre (FIRC) or our brand new Future Food Lab (FFL).
- Acquire local and global perspectives on research, product development and food operations through internships and learning journeys.
- Get your food products on the shelves through industry-linked Final Year Projects.
- Enjoy direct entry and advanced standing to renowned local and overseas universities.
- Explore a wide array of career options and pathways available to our graduates.

CAREER OPTIONS

- Assistant Food Technologist/
Food Technologist
- Food Audit Officer
- Food Hygiene Officer
- Food Safety Officer
- Laboratory Technologist
- Market Development Executive
- Packaging Technologist
- Quality Assurance/
Quality Control Executive
- Research & Development Technologist
- Sales & Marketing Executive

ENTRY REQUIREMENTS

Range of Net 2023 JAE ELR2B2: 4 – 11

Aggregate Type: ELR2B2-C

SUBJECT	GRADE
English Language	1 – 7
Mathematics (Elementary/Additional)	1 – 6
Any one of the following subjects:	1 – 6
• Biology	
• Biotechnology	
• Chemistry	
• Food & Nutrition / Nutrition & Food Science	
• Physics	
• Science (Chemistry, Biology)	
• Science (Physics, Biology)	
• Science (Physics, Chemistry)	

SCHOLARSHIPS

- A*STAR Science Award
- BASF Scholarship
- MOH Holdings Scholarships
- SFMA — Pek Cheng Chuan Scholarship
- SIFST Best Student Award cum Rintoul Memorial Scholarship
- Singapore Polytechnic Scholarships
- Tai Hua Scholarship



My internship experience has helped to shape my current aspirations as I had a taste of what research and product development is like. While utilising different technologies to improve the nutritional quality of various food products, it aroused my interest to explore more possibilities of producing food products in a sustainable manner. ▶▶

Wong Zi Hua

DFST Gold Medallist

Global Executive Scholarship Recipient

Internship at Nestlé R&D Centre
Singapore



WHAT YOU'LL STUDY

The Diploma in Food Science & Technology is a three-year full-time programme.



FIRST YEAR

- Basic Mathematics
- Biochemistry & Cell Biology
- Chemical Safety & Biosafety
- Chemistry I
- Chemistry II
- Chemistry & its Applications
- Common Core Modules
- Elective 1
- Engineering Mathematics
- Instrumental Analysis
- Introductory Food Science
- Microbiology & Genetics

SECOND YEAR

- Chemistry III
- Common Core Modules
- Elective 2
- Food Chemistry
- Food Ingredients
- Food Microbiology
- Food Preservation
- Food Process Engineering
- Food Product Development & Packaging
- Food Safety & Quality Management
- Nutrition
- Statistics

THIRD YEAR

- Common Core Modules
- Elective 3
- Internship Programme
- Project

ELECTIVES

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OPTOMETRY

DOPT – S67



The Gift of Sight through Science

Vision is not merely the ability to see, but a portal to a world of possibilities. The Diploma in Optometry (DOPT) empowers you with the valuable skills and knowledge to fulfil your calling in the noble field of eye-care.

Throughout your educational journey, we foster an appreciation for optimal eye health and eyesight, equipping you with the skills needed to manage conditions such as myopia and presbyopia, detect common eye diseases and correct vision with spectacles and contact lenses.

Beyond the classroom, you will engage in hands-on training, harnessing state-of-the-art technology at the SP Optometry Centre.

Upon completion of your diploma, become a licensed optometrist registered with the Optometrists and Opticians Board (OOB), regulated by the Ministry of Health.

If you yearn to illuminate lives through eye care, join us in the Diploma in Optometry course for a fulfilling career.

FURTHER STUDIES

You can apply for related degree programme at international universities such as the Bachelor's/Masters degree in Optometry in United Kingdom or Australia. Many of our graduates are offered module exemptions or direct entry into the second or third year of their university degree programmes. You are also eligible to apply for many non-optometry undergraduate programmes such as Medicine, or in the areas of biological sciences and allied health at local universities.

WHAT YOU CAN EXPECT

- Hone your skills at our 5700 sq. ft. SP Optometry Centre, a state-of-the-art learning environment supported by renowned brands like Zeiss and EssilorLuxottica.
- Experience hands-on learning opportunities from your first year, including industrial attachments to hospitals, optometric practices, and lens companies. Enhance your practical skills and knowledge through a 22-week internship in the final semester.
- Expand your horizons with local and overseas study trips, engaging in community service projects, participating in conferences, or attachments to healthcare and research institutions.
- Enjoy direct entry and advanced standing to renowned local and overseas universities.
- Explore a wide array of career options and pathways available to our graduates.

CAREER OPTIONS

- Clinical optometrist
- Community-based optometrist
- Lens Consultant
- Marketing and Customer Development Executive
- Professional Affairs Executive
- Research Optometrist

ENTRY REQUIREMENTS

Range of Net 2023 JAE ELR2B2: 6 – 14
Aggregate Type: ELR2B2-C

SUBJECT	GRADE
English Language	1 – 7
Mathematics (Elementary/Additional)	1 – 6
Any one of the following subjects:	1 – 6

- Biology
- Biotechnology
- Chemistry
- Food & Nutrition / Nutrition & Food Science
- Physics
- Science (Chemistry, Biology)
- Science (Physics, Biology)
- Science (Physics, Chemistry)

Applicants with severe physical impairment may encounter difficulties meeting the course requirements and expectations. Please refer to the Optometrists & Opticians Board (OOB) Professional Practice Code and Guidelines on "Fitness to Practice" for guidance. Interested applicants with any of these conditions are advised to contact Singapore Polytechnic for more information.

SCHOLARSHIPS

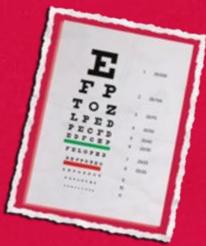
- MOH Holdings Scholarships
- Singapore Polytechnic Scholarships



During my internship at Johnson & Johnson Vision Care, I gained invaluable insights and applied skills from my SP diploma courses to facilitate eye care programs. Working closely with industry professionals, I organized ACUVUE® awareness events for Eye Care Professionals and the public, honing my planning and execution abilities. This experience at J&J enriched my industry knowledge significantly.

Gloria Wee

Internship at Johnson & Johnson Experience Center



WHAT YOU'LL STUDY

The Diploma in Optometry is a three-year full-time programme.



FIRST YEAR

- Basic Mathematics
- Clinical Optometry 1
- Clinical Optometry 2
- Common Core Modules
- Engineering Mathematics
- Geometrical & Physical Optics
- Human Anatomy, Physiology & General Medical Disorders
- Ocular Anatomy & Physiology
- Ophthalmic Dispensing
- Ophthalmic Optics
- Physiological & Visual Optics

SECOND YEAR

- Binocular Vision
- Chemistry I
- Chemistry II
- Clinical Optometry 3
- Clinical Practice 1
- Common Core Modules
- Contact Lens Practice 1
- Contact Lenses
- Elective 1
- Elective 2
- Ocular Disease 1

THIRD YEAR

- Clinical Practice 2
- Common Core Modules
- Contact Lens Practice 2
- Elective 3
- Ocular Disease 2
- Paediatric Optometry
- Internship Programme

ELECTIVES

The SP elective framework offers students options to pursue their passion and / or meet different career needs, and is an integral part of the holistic education we seek to provide to our students. The learning experiences of this elective framework help students in their development as self-directed, versatile, life-long learners, which are essential in today's volatile and changing societal as well as occupational landscape.

Students who are interested to explore additional new skills and abilities will have the opportunity to take up to five electives. Certificates and minors will be awarded when students complete a suite of related elective modules. Please visit <https://www.sp.edu.sg/sp/education/elective-modules> for details of this elective scheme and the full list of electives.

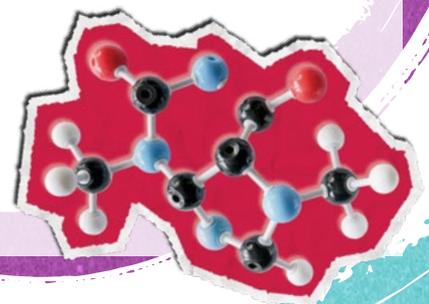
COMMON CORE CURRICULUM

The Common Core Curriculum is designed to prepare students for a disruptive world that is ever-changing. Comprising critical human and emerging digital skills, the common core modules offer students an integral and inter-disciplinary learning experience to address the wicked problems of the world (framed by the United Nations' Sustainable Development Goals).

Through the Common Core modules, students will think critically about real-world problems, empathise with local and global communities and be challenged to effect change. For more information on the Common Core Curriculum, please visit <https://www.sp.edu.sg/sp/education/common-core-curriculum>.

All full-time diploma students are required to take a compulsory Education and Career Guidance module in SP. Students will take Education and Career Guidance – Personal Development (30 hours) in their first year.

All students are required to take one compulsory Wellness for Life (WFL) module for one semester in their first year in SP. In their second and third year, students may sign up for WFL module as an optional module.



PERFUMERY & COSMETIC SCIENCE

DPCS – S38



The Science that Invokes the Senses

The Diploma in Perfumery & Cosmetic Science (DPCS) is where innovation and creativity intertwine to create enchanting possibilities in fragrance and cosmetic formulation.

Our integrated approach ensures an immersive and hands-on learning journey through in-depth lectures, internships, and collaborations with industry partners, empowering you to acquire practical skills and valuable industry insights.

The realm of fragrance and cosmetics is not only alluring, but also profitable and stable. At DPCS, you'll be empowered with skills and expertise to flourish and take hold of opportunities that beckon from every corner of the globe.

Ever wanted to concoct captivating formulations? Join the Diploma in Perfumery & Cosmetic Science course and immerse yourself in this fascinating field.

WHAT YOU CAN EXPECT

- Immerse yourself in our cutting-edge Consumer Chemicals Technology Centre and Perfumery & Cosmetic Science Centre.
- Collaborate with industry partners to gain practical experience in creating perfumes, cosmetic products, and extracting essential oils.
- Benefit from internships with perfumers, chemists, and product formulators in reputable chemical companies, fragrance houses, and fast-moving consumer goods companies.
- Enjoy direct entry and advanced standing to renowned local and overseas universities.
- Explore a wide array of career options and pathways available to our graduates.

At the heart of our programme lies the cutting-edge Perfumery and Cosmetic Science Centre. This facility shapes your learning experience through three core pillars:

- + **Conceptualisation: Foster Creative Thinking**
Employ design thinking to develop new innovative formulations that address genuine user needs.
- + **Crystallisation: Transform Ideas into Reality**
Bring your dreams to life by creating formulations or extracting natural ingredients.
- + **Communication: Realise Aspirations**
Showcase your ideas to industry stakeholders for a chance to actualise your formulations in the market.

SCHOLARSHIPS

- A*STAR Science Award
- Singapore Polytechnic Scholarships
- Society of Cosmetic Scientists (Singapore) Merit Award

FURTHER STUDIES

Many of our graduates gain entry into degree programmes at local or overseas universities. You can pursue further studies in the areas of cosmetic science, perfumery and chemistry.

ENTRY REQUIREMENTS

Range of Net 2023 JAE ELR2B2: 6 – 11

Aggregate Type: ELR2B2-C

SUBJECT	GRADE
English Language	1 – 7
Mathematics (Elementary/Additional)	1 – 6
Any one of the following subjects:	1 – 6
<ul style="list-style-type: none">• Biology• Biotechnology• Chemistry• Food & Nutrition / Nutrition & Food Science• Physics• Science (Chemistry, Biology)• Science (Physics, Biology)• Science (Physics, Chemistry)	

CAREER OPTIONS

- Assistant / Junior Fragrance Evaluator
- Chemist
- Formulator
- Procurement Executive
- Product Application Chemist
- Product Development Specialist
- Quality Assurance/Quality Control Laboratory Analyst
- Regulatory and Product Safety Personnel
- Sales/Business/Marketing Executive
- Trainee/Assistant Perfumer



During my internship at PT Megasurya Mas (Indonesia), an R&D lab, I dove into cosmetics formulation, mastering raw materials and crafting emulsions and creams. I believe that SP equipped me with foundational knowledge, laboratory skills, and chemistry understanding, which seamlessly translated to my internship learning. 📖

Adelia Goh Zhi Xuan

Internship at PT Megasurya Mas



WHAT YOU'LL STUDY



The Diploma in Perfumery & Cosmetic Science is a three-year full-time programme.

FIRST YEAR

- Basic Mathematics
- Biochemistry & Cell Biology
- Chemical Safety and Biosafety
- Chemistry I
- Chemistry II
- Chemistry & its Applications
- Common Core Modules
- Elective 1
- Engineering Mathematics
- Instrumental Analysis
- Introductory Food Science
- Microbiology & Genetics

SECOND YEAR

- Chemistry III
- Chemistry of Cosmetic Raw Materials
- Common Core Modules
- Elective 2
- Elective 3
- Engineering Mathematics II
- Formulation and Colloidal Science of Cosmetics
- Fragrance and Flavour Chemistry I
- Fragrance and Flavour Chemistry II
- Further Chemistry I
- Quality Assurance & Statistics
- The Art of Perfumery

THIRD YEAR

- Internship Programme
- Safety Assessment, GMP and Cosmetic Regulations

ELECTIVES

The SP elective framework offers students options to pursue their passion and / or meet different career needs, and is an integral part of the holistic education we seek to provide to our students. The learning experiences of this elective framework help students in their development as self-directed, versatile, life-long learners, which are essential in today's volatile and changing societal as well as occupational landscape.

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