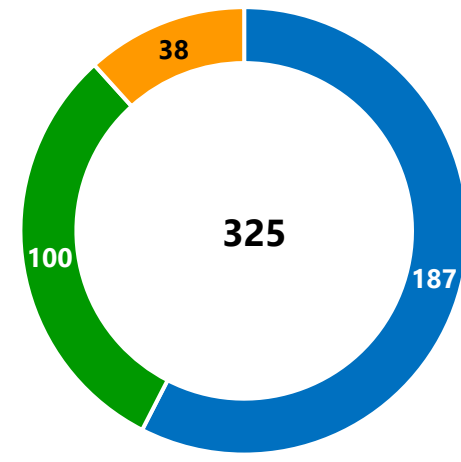
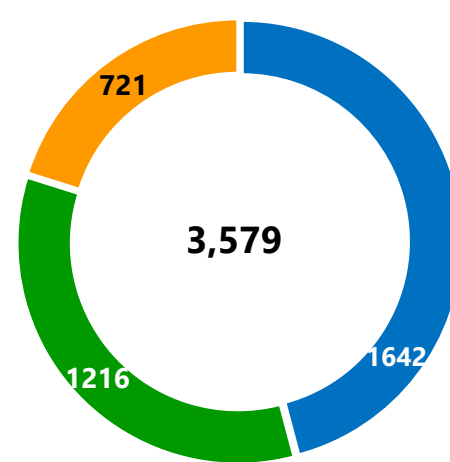
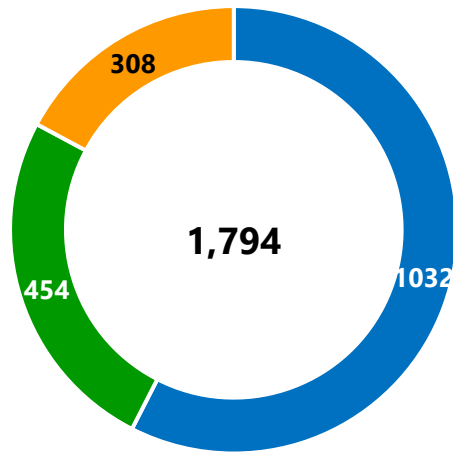
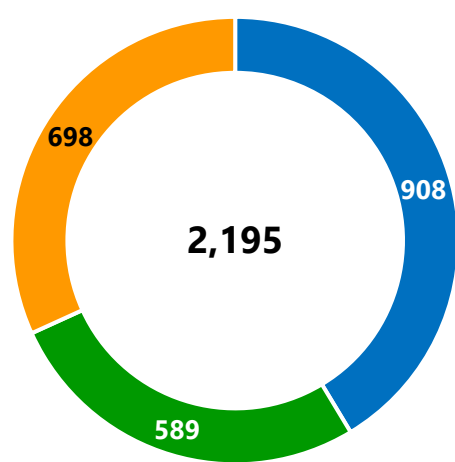




A Career-related Programme (CP) 101

Mid-Atlantic Association of IB Schools (IBMA)
September 13, 2024

Global implemented programmes



■ Americas ■ Africa, Europe & Middle East ■ Asia Pacific

Our programmes in IBMA

50 +2



90 +5



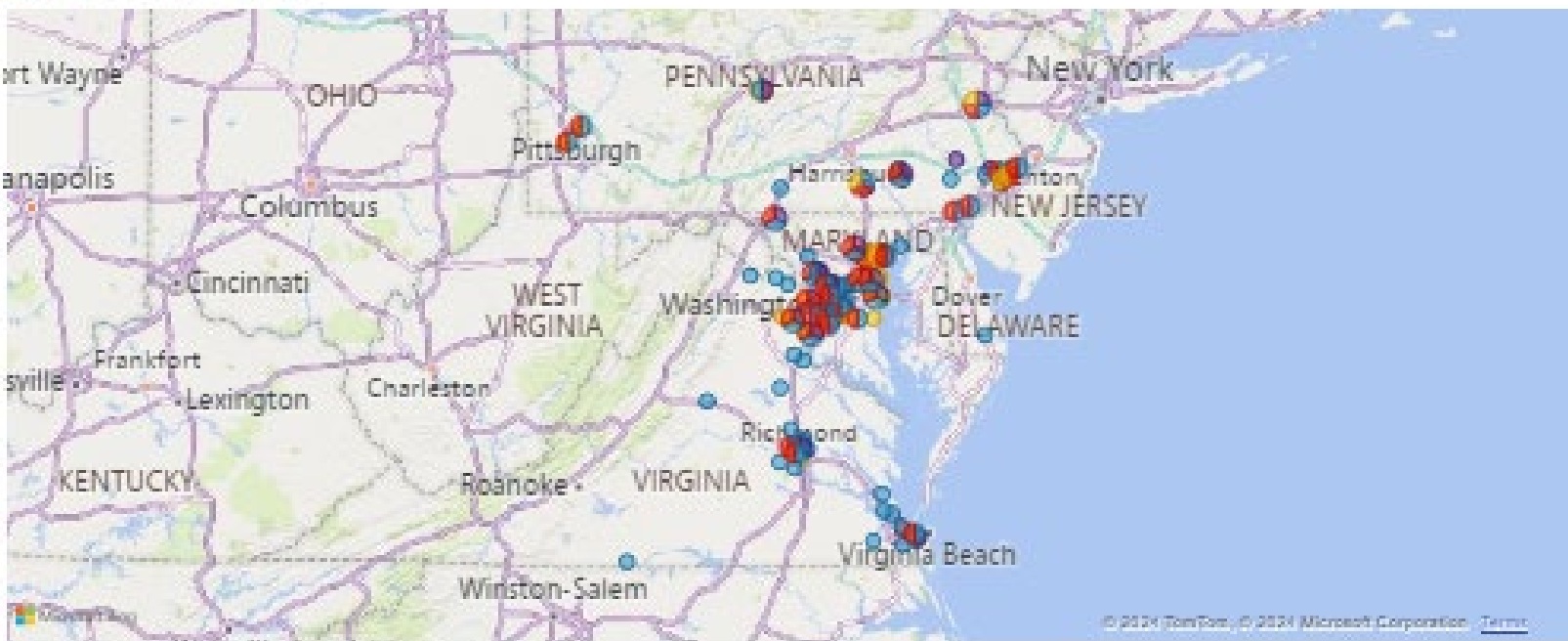
89 +1



20 +1



CP DP MYP PYP



IB Country State - GDS report, IB World Schools by Programme and Location

Live data Data updated on 8/17/24, 5:13 AM

CP in Numbers (Global)

Data retrieved, 3 September 2024

Total CP Schools

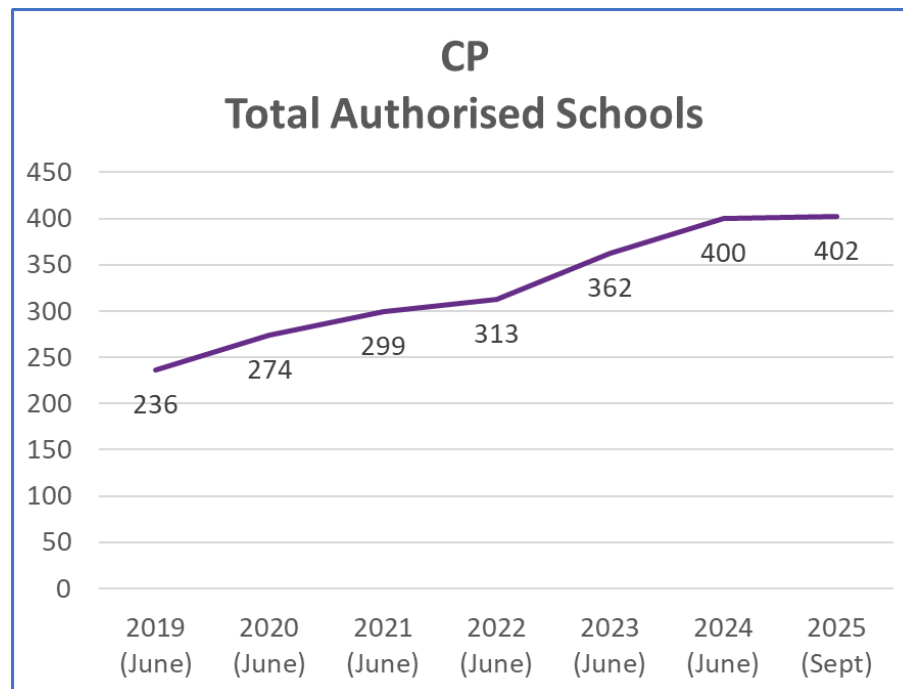
402

Average annual growth (last 5 years)

11%

Total newly Authorized schools in last five years

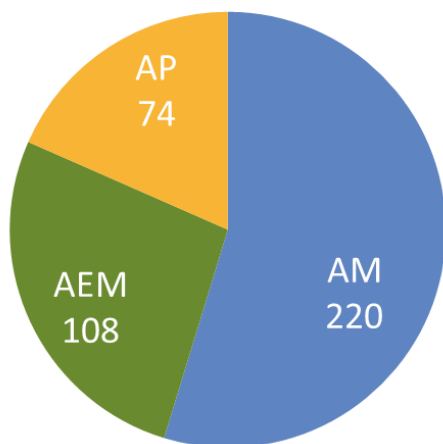
218



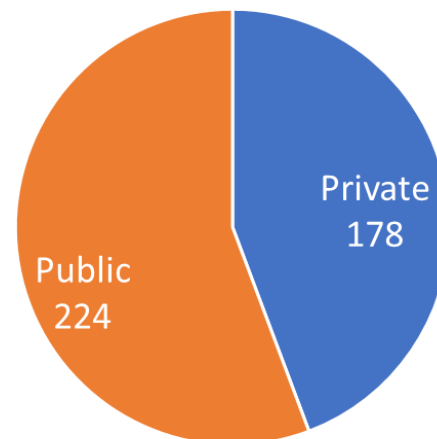
CP schools: 402

Data retrieved, 3 September 2024

CP Schools by region



CP Schools by public / private



The CP in IBMA is growing!



| District | School Name | City | State | Year authorized |
|--------------------------------------|------------------------------|----------------|-------|-----------------|
| FAIRFAX COUNTY PUBLIC SCHOOLS | Mount Vernon High School | Alexandria | VA | 2012 |
| FAIRFAX COUNTY PUBLIC SCHOOLS | South Lakes High School | Reston | VA | 2012 |
| FALLS CHURCH CITY PUBLIC SCHOOLS | Meridian High School | Falls Church | VA | 2023 |
| HENRICO COUNTY PUBLIC SCHOOLS | Henrico High School | Richmond | VA | 2021 |
| NORFOLK PUBLIC SCHOOLS | Granby High School | Norfolk | VA | Can★date |
| PRINCE WILLIAM COUNTY PUBLIC SCHOOLS | Unity Reed High School | Manassas | VA | 2017 |
| PRINCE WILLIAM COUNTY PUBLIC SCHOOLS | Gar-Field Senior High School | Woodbridge | VA | 2015 |
| VIRGINIA BEACH CITY PUBLIC SCHOOLS | Green Run Collegiate | Virginia Beach | VA | 2015 |

The CP in IBMA is growing!



| District | School Name | City | State | Year authorized |
|------------------------------------|------------------------------|--------------|-------|-----------------|
| ANNE ARUNDEL COUNTY PUBLIC SCHOOLS | Annapolis High School | Annapolis | MD | 2021 |
| ANNE ARUNDEL COUNTY PUBLIC SCHOOLS | Old Mill High School | Millersville | MD | 2021 |
| ANNE ARUNDEL COUNTY PUBLIC SCHOOLS | Meade Senior High School | Ft Meade | MD | 2021 |
| BALTIMORE COUNTY PUBLIC SCHOOLS | New Town High School | Owings Mills | MD | 2020 |
| MONTGOMERY COUNTY PUBLIC SCHOOLS | Rockville High School | Rockville | MD | 2012 |
| MONTGOMERY COUNTY PUBLIC SCHOOLS | Seneca Valley High School | Germantown | MD | 2020 |
| MONTGOMERY COUNTY PUBLIC SCHOOLS | Watkins Mill High School | Gaithersburg | MD | 2012 |
| WASHINGTON COUNTY PUBLIC SCHOOLS | North Hagerstown High School | Hagerstown | MD | 2019 |

The CP in IBMA is growing!



| District | School Name | City | State | Year authorized | Standalone CP |
|--|-------------------------|------------------|-------|-----------------|---------------|
| Lehigh Valley Academy Regional Charter School | | Bethlehem | PA | 2018 | |
| Plymouth Whitemarsh High School | | Plymouth Meeting | PA | 2020 | |
| York County School of Technology | | York | PA | 2018 | YES |
| DISTRICT OF COLUMBIA PUBLIC CHARTER SCHOOL BOARD | DC International School | Washington | DC | 2018 | |
| Girls Global Academy | | Washington | DC | 2022 | YES |

CP overview

- **Flexible framework for a personalized education**, designed for students interested in pursuing career-related education in the final two years of secondary school.
- Provides them with **an excellent foundation** to support further studies, as well as ensure **preparedness for success in the workforce**.
- Three-part framework comprises the study of at least two **IB Diploma Programme (DP)** courses alongside the **distinctive CP core** and a **career-related study**.

The value of CP

The programme seeks to bridge the gap between academic and career-related education:

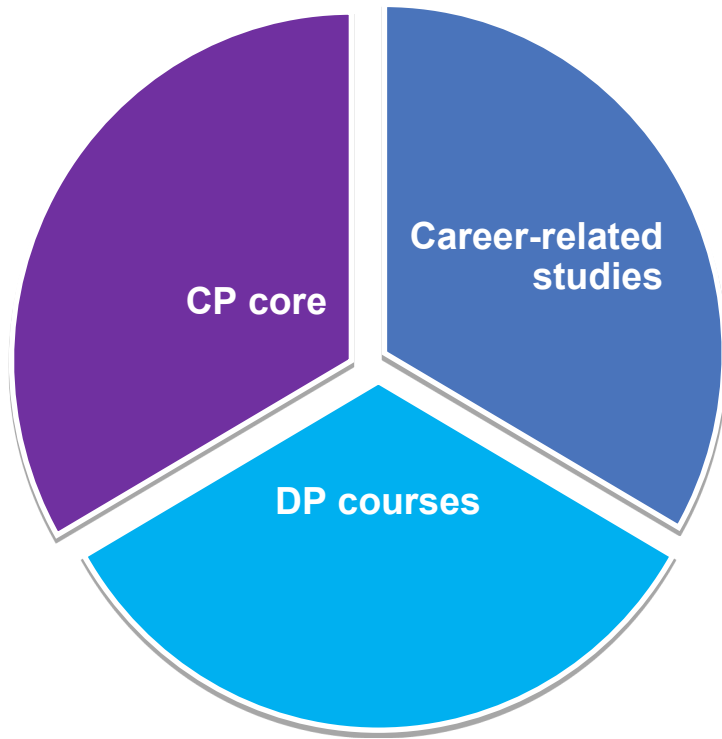
- Educational reform in many countries has sought to meet the expectations of employers.
- It is understood that the gap between workforce needs, and the skills of graduates entering the workforce, needed adjustment and narrowing.

The CP curriculum model



Structure of the CP

The CP is a three-part educational framework that consists of:





1. Academic coursework from the Diploma Programme (DP)
2. The CP core, where students develop professional skills, engage with language development, complete a service-learning engagement and produce a reflective project on their CP experience
3. Career-related studies, where students gain real-world experience in a chosen career field

DP subjects

- Students complete at least two DP courses in **any** of subject groups at SL or HL.
- SL and HL courses differ in scope but are measured according to the same grade descriptors, with students expected to demonstrate a greater body of knowledge, understanding and skills at higher level.
- DP courses provide and enhance the theoretical underpinnings and academic rigor of the CP.
- Standard level subjects take up 150 teaching hours. Higher level comprises 240 teaching hours.

International Baccalaureate
Diploma Programme Subject Brief
Sciences:
Chemistry—Standard level
First assessments 2016 – Last assessments 2022





The IB Diploma Programme (DP) is a rigorous, academically challenging and balanced programme of education designed to prepare students aged 16 to 19 for success at university and life beyond. The DP aims to encourage students to be knowledgeable, inquiring, caring and compassionate, and to develop intercultural understanding, open-mindedness and the attitudes necessary to respect and evaluate a range of viewpoints. Approaches to teaching and learning (ATL) within the DP are deliberate strategies, skills and attitudes that permeate the teaching and learning environment. In the DP, students develop skills from five ATL categories: thinking, research, social, self-management and communication.

To ensure both breadth and depth of knowledge and understanding, students must choose at least one subject from five groups: 1) their best language, 2) additional language(s), 3) social sciences, 4) experimental sciences, and 5) mathematics. Students may choose either an arts subject from group 6, or a second subject from groups 1 to 5. At least three and not more than four subjects are taken at higher level (240 recommended teaching hours), while the remaining are taken at standard level (150 recommended teaching hours). In addition, three core elements—the extended essay, theory of knowledge and creativity, action, service—are compulsory and central to the philosophy of the programme.

These IB DP subject briefs illustrate four key course components:

I. Course description and aims

II. Curriculum model overview

I. Course description and aims
Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. Chemical principles underpin both the physical environment in which we live and all biological systems. Chemistry is often a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science.

Both theory and practical work should be undertaken by all students as they complement one another naturally, both in school and in the wider scientific community. The DP chemistry course allows students to develop a wide range of practical skills and to increase facility in the use of mathematics. It also allows students to develop interpersonal and information technology skills, which are essential to life in the 21st century.

By studying chemistry students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the subject. Teachers provide students with opportunities to develop manipulative skills, design investigations, collect data, analyse results and evaluate and communicate their findings.

Through the overarching theme of the nature of science, the aims of the DP chemistry course are to enable students to:

1. appreciate scientific study and creativity within a global context through stimulating and challenging opportunities
2. acquire a body of knowledge, methods and techniques that characterize science and technology
3. apply and use a body of knowledge, methods and techniques that characterize science and technology


III. Assessment model

IV. Sample questions

4. develop an ability to analyse, evaluate and synthesize scientific information
5. develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities
6. develop experimental and investigative scientific skills including the use of current technologies
7. develop and apply 21st century communication skills in the study of science
8. become critically aware, as global citizens of the ethical implications of using science and technology
9. develop an appreciation of the possibilities and limitations of science and technology
10. develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

II. Curriculum model overview

| Component | Recommended teaching hours |
|-------------------------------------|----------------------------|
| Core | 95 |
| 1. Stoichiometric relationships | 13.5 |
| 2. Atomic structure | 6 |
| 3. Periodicity | 6 |
| 4. Chemical bonding and structure | 13.5 |
| 5. Energetics/thermochemistry | 9 |
| 6. Chemical kinetics | 7 |
| 7. Equilibrium | 6.5 |
| 8. Acids and bases | 6.5 |
| 9. Redox processes | 8 |
| 10. Organic chemistry | 11 |
| 11. Measurement and data processing | 10 |



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The CP Core (4)

(one course and three compulsory components *all updated)



***Personal and professional skills course**

Conceptual designed for students to develop attitudes, skills and strategies to be applied to personal and professional life now and in the future.

***Reflective project**

An in-depth body of work where students identify, analyze, critically discuss and evaluate an ethical issue arising from the workplace.



Language development (*Language and cultural studies)

This component encourages students to further their understanding of the wider world through language and cultural studies.



Service learning (*Community engagement)

In a research-based approach, students undertake an engagement utilizing skills, understanding and values developed from their studies.

Sample Student Schedules

Sample Student Schedule Overview

| | Grade 9 | Grade 10 | CP 11 | CP 12 |
|-------------------------------|---|--|--|--|
| NC Future Ready Core | English 9 Language B World History Earth Science Math 1 HPE Arts Elective | English 10 Language B Civics & Economics Biology Math 2 Arts Elective Elective | American History I a Physical Science Math 3 Electives (1-2) | American History II 4th Math Electives (2) |
| CP Core (90//50/50/50) | | | 01008X0 Personal & Professional Skills (with Language Development, Service Learning, and Reflective Project) | |
| CRS | Complete required course for future CRS | | CRS Course 2 | CRS Course 3 |
| DP Courses | | | 11028X0 IB English A: Lang & Lit SL | |
| | | | DP Elective (opt) | DP Elective(CRS) |

<https://www.wcpss.net/site/Default.aspx?PageID=41424>
Garner Magnet High School, WCPS, 02/27/2023

Sample Student Schedules

Sample Student Schedule Detail | Engineering and Design Career-related Study*

*Requires successful completion of TE11 Technology Engineering & Design in the 9th or 10th grade.

| | Grade 11 | Grade 12 |
|--------|---|---|
| IBCP | 01008X0 Personal & Professional Skills (with Language Development, Service Learning, and Reflective Project) | |
| CRS | TE13 Engineering Design OR TE12 Technological Design | CS95 CTE Advanced Studies OR TE13 Engineering Design |
| IBDP | 11028X0 IB English Language and Literature SL | |
| | Optional DP Elective* | 31068X0 IB Design Technology SL |
| NC-FRC | NC Math 3 OR 4th Math | 4th Math OR Math elective |
| | American History I | American History II |
| | Physical Science OR Science Elective | Science Elective |
| | Elective | Elective |

<https://www.wcpss.net/site/Default.aspx?PageID=41424>
Garner Magnet High School, WCPS, 02/27/2023

Sample Student Schedules

Sample Student Schedule Detail | Health Sciences Career-related Study*

*Requires successful completion of TE11 Technology Engineering & Design in the 9th or 10th grade.

| | Grade 11 | Grade 12 |
|---------------|--|---|
| IBCP | 01008X0 Personal & Professional Skills (with Language Development, Service Learning, and Reflective Project) | |
| CRS | HU42 Health Science 2 | HB11 Biomedical Technology |
| IBDP | 11028X0 IB English Language and Literature SL | |
| | Optional DP Elective* | 31088X0 IB Sports Exercise and Health Science SL |
| NC-FRC | NC Math 3 OR 4th Math | 4th Math OR Math elective |
| | American History I | American History II |
| | Physical Science OR Science Elective | Science Elective |
| | Elective | Elective |

<https://www.wcpss.net/site/Default.aspx?PageID=41424>
Garner Magnet High School, WCPS, 02/27/2023

Personal and Professional Skills



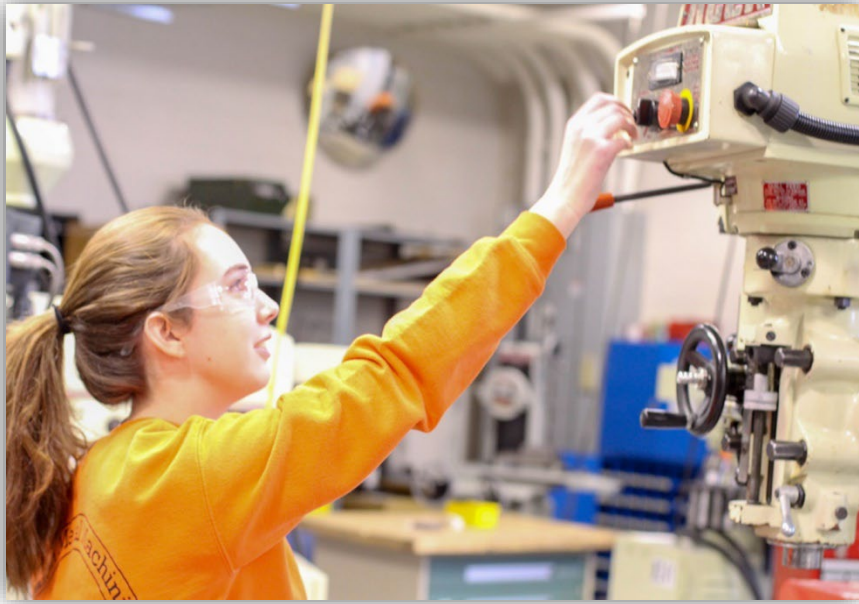
"I would argue every student should take PPS before they graduate. PPS is a fantastic course for any student because it explicitly teaches transferable skills that are essential to college and career success post high school."

Matthew Mathison
Principal
Gar-Field High School



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Career-related study



- Career-related studies are offered and awarded by the school or an outside pathway provider
- Through career-related studies, students are provided with practical, real-world approaches to learning, designed to prepare them for higher education, an internship or apprenticeship or even a job.
- It also provides the opportunities for students to learn about theories and concepts through application and practice while developing skills in authentic and meaningful contexts.

“McKinsey suggests that career-related education is creating significant benefits for students and that the reputation of career-related study is undergoing improvement.”

CRS criteria

| Criteria | Explanation |
|------------------------------|--|
| 1. Delivery of the CP | The Career-related study is part of the student timetable during the two year period of the CP. |
| 2. Accreditation/recognition | The CRS and assessment plan MUST be accredited/recognized by one (or more) of these: <ul style="list-style-type: none">• a government body,• an awarding body,• an appropriate employer organization or a professional body,• or a further/higher education institution. |
| 3. Quality assurance | The CRS is subject to a demonstrable form of external quality assurance. |

Top 5 Career-related study areas



Business & Finance



Health Science



Engineering



Hospitality & Tourism



IT

Career-related study samples from IBMA

Accounting

Air Force JROTC

Architectural Drawing and Design

Automotive Technology

Business Management and Finance

Career Readiness

Career Research and Development

Carpentry

Child Development

CISCO (computer programming)

Code.org

CompTia A+ Certification + AP Computer Science

Computer Graphics

Computer Information Systems

Computer Science

Construction Electricity

Construction and Development

Construction Management

Cybersecurity

Foundations of Building and Construction Technology

Health Professions

Design Technology

Engineering Strand

Food and Beverage Management

Food/Nutrition

Health Sciences

Hospitality and Tourism Management

Interactive Media Production

Marketing

Microsoft Certificate

Multimedia Design

Emergency Medical Technician

Marketing

Military Science

Navy JROTC

PBS Student Reporting Lab

PLTW: Biomedical, Engineering

Sports Medicine and Athletic Training

Teaching

Technical Drawing

Visual/Digital arts

The CP assessment model



CP award criteria

- The candidate has completed the specified career-related study.
- The candidate has been awarded a grade 3 or more in at least two of the Diploma Programme courses registered for the Career-related Programme.
- The candidate has been awarded a grade of at least D for the Reflective project.
- Personal and professional skills, Service learning and Language Development requirements have been met.
- The candidate has not received a penalty for academic misconduct. All candidates will receive programme results detailing their level of achievement in the Diploma Programme courses and the reflective project along with the status of completion of the Career-related Programme core.

CP and assessment, 2024

1. The assessed elements of the CP:

- ✓ Reflective project (internally assessed, externally moderated)
- ✓ DP subjects (minimum 2)
 - Most popular subjects for CP students: *English literature* • *English language and literature* • *Maths* • *History* • *Psychology* • *Business management* • *Biology*

2. What issues are our students exploring?

Should wage difference between genders in sports be morally acceptable?

Should the film industry be held accountable for perpetuating harmful, unrealistic beauty standards ?

Is it ethical for businesses to replace human employees with AI?

Should companies be allowed to advertise junk food during children's TV programmes?

3. RP statistics

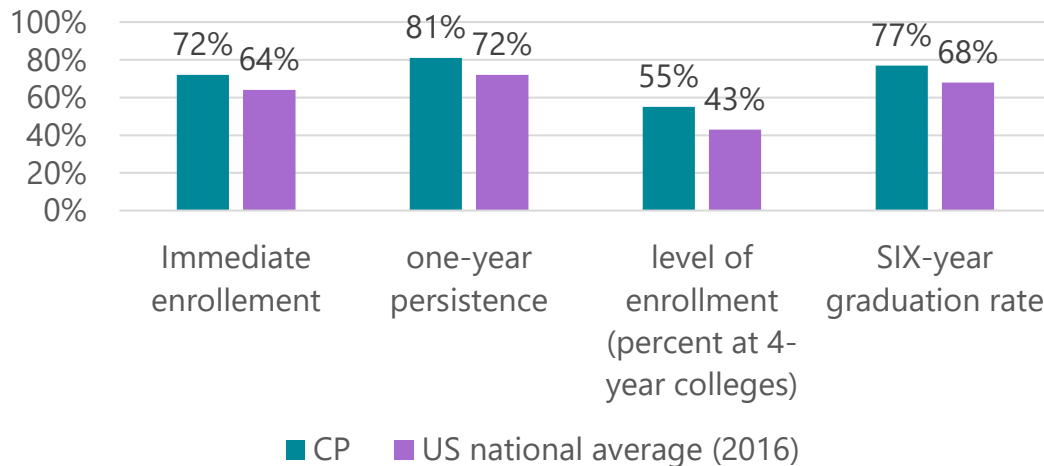
| Session | Eng | French | Spa |
|----------|------|--------|------|
| MAY 2024 | 6470 | 16 | 1323 |
| MAY 2023 | 3787 | 11 | 985 |
| MAY 2022 | 4091 | 11 | 789 |

| Session | Eng | French | Spa |
|----------|-----|--------|-----|
| NOV 2024 | 67 | 0 | 14 |
| NOV 2023 | 71 | 0 | 34 |
| NOV 2022 | 67 | 0 | 26 |

M24 mean grade = C and 20.10 marks

US Enrollment and Retention Data

Immediate enrollment, persistence, and preference for four-year over two-year colleges were all higher for CP graduates than for all US graduates nationally



Overall, once CP graduates enrolled, almost all (81%) return for their sophomore year, which is 9 percentage points higher than the national average (72% in 2016).

CP and 16+ Review

Connections:



Programme-level innovation

- CP is part of comprehensive review of IB's offer for young people ages 16-19
- Development work rooted in seven goals for transformation – including commitments related to well-being, agency, workload and greater diversity of perspectives.
- Educator update planned for early 2025

Learning from / building on the CP experience

- Designs of 2025 CP core central to discussions on the future of 16+ cores
- Understanding and navigating complexity and interdependence
- "Positive" paradigm: all involvement in DP/CP experiences and aspirations for post-secondary are valid

On the horizon

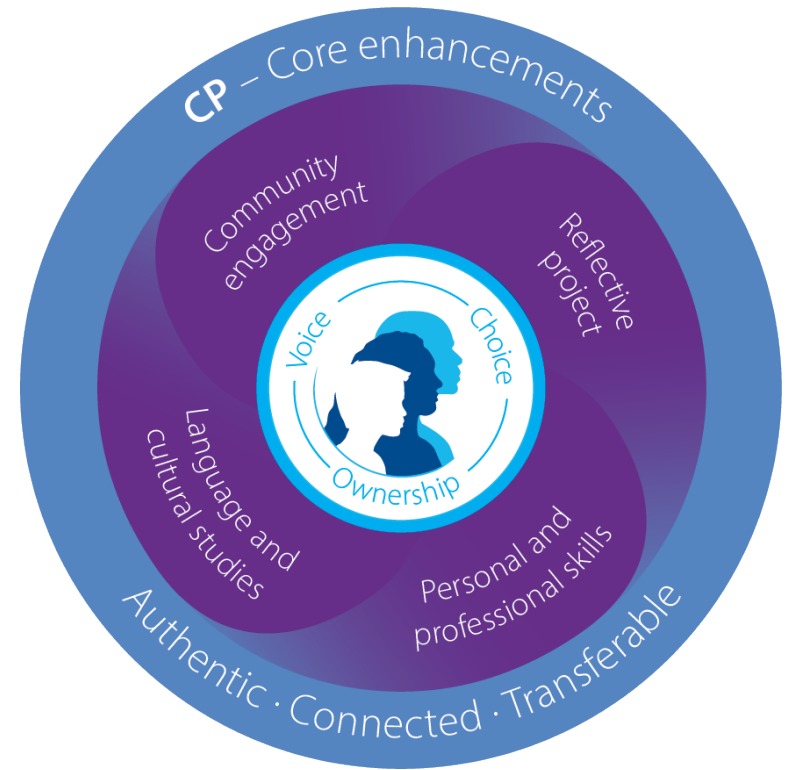
- Richer, "portfolio-style" transcribing, including the potential to highlight well-defined interests or emerging specialization
- Strengthening the career-related focus; exploring new structures' value for CP students

Curriculum development - CP Core enhancements

Simultaneous and synergistic review of all four CP core components

Focus

- More explicit links among the core components
- Stronger philosophical and pedagogical underpinnings
- Clearer focus on ethics, reflection/reflexivity, inquiry and conceptual understanding
- Revised requirements to support pedagogically sound implementation



CP core enhancements for 2025: next steps

2024

- **Guide and TSM production**
- **Workshop development** for all core components: Upskilling, SSS, Cat. 1, Cat. 2
- **IBEN Upskilling:** September 2024
- **Final curriculum review reports to teachers:** September 2024

2025

- **Guide publication:** February 2025
- **SSS:** February – April 2025
- **TSM publication:** April 2025
- **Cat. 1 and Cat. 2 workshops:** April 2025 onwards
- **First teaching:** August 2025

CP and IB professional development

| Product type | Purpose | Modality | Expected delivery date |
|---------------------------------------|---|----------------------------------|----------------------------|
| Upskilling | Provides CP workshop leaders with training on updates to the new/revised core components | Online (facilitated) | September 2024 |
| eLearning resource | Provides CP educators with an opportunity to explore the key changes to the core components | Self-paced online | December 2024/January 2025 |
| Subject Specific Seminar (SSS) | Provides experienced CP educators an opportunity to engage deeply on the key changes to the core components including the rationale behind these changes. | Face to face, virtual and online | February 2025 – April 2025 |
| Category 1 | Provides new CP educators with information on the expectations of the core components with a focus on IB philosophy and implementation | Face to face, virtual and online | April 2025 |
| Category 2 | Provides experienced CP educators with an enhanced engagement into the core components | Face to face, virtual and online | April 2025 |

PD for all CP components in progress

| |
|-------------------------------------|
| Reflective project |
| Personal and Professional Skills |
| Language and Cultural Studies (LD*) |
| Community Engagement (SL*) |

CP in the News

Wider recognition for the CP:

- 3 Universities in IBNA recognizing the CP: Bishop's University, Quebec, Saint Mary's University, Halifax, Arizona State University
- Legislation was enacted in Oregon for January of 2025 recognizing the CP as an alternative pathway for graduation for a state diploma
- Invitation from ASU/GSV India to speak on a panel for "reimagining high schools" to the IB & ASU (February 2025)
- Current CPs in Arizona are linking CRS pathways to advanced manufacturing jobs linked to new federal investments in chip manufacturing

Strategic partnerships for CRS options

Accelerate ASU & IB

An innovative educational framework that provides students with an excellent foundation to support their further studies and specialized training and ensure their success in the workforce.



ASU Mastery Certificates

Choose from a wide variety of first-year, general education courses, including STEM and Humanities, as well as Mastery Certificate pathways including Google IT and many others



Customizable Pathways

High school partners have the ability to use ASU's Universal Learner Course catalog to create a customized certificate pathway for their students. Our team will help your school determine the best courses for your students and community.



Ease of implementation

Adopting Accelerate ASU is simpler and faster than typical dual enrollment options — your school can offer college credit without increasing teacher workload while using existing faculty.



CP subject registrations

< Back to report

GROUP - CP TOP 10 SUBJECTS BY NO. OF SUBJECT REGISTRATIONS

| Subject | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------|------|------|------|------|------|------|------|------|
| BIOLOGY HL | 36 | 28 | 29 | 45 | 32 | 34 | 41 | 74 |
| BUS MAN SL | 63 | 62 | 65 | 69 | 69 | 43 | 91 | 122 |
| CHEMISTRY SL | 12 | 23 | 24 | 31 | 33 | 14 | 22 | 68 |
| ENGLISH A LAL HL | 54 | 51 | 48 | 84 | 91 | 142 | 128 | 235 |
| ENGLISH A LAL SL | 7 | 5 | 3 | 8 | 3 | 51 | 46 | 118 |
| ENV. AND SOC. SL | 27 | 44 | 59 | 64 | 54 | 55 | 53 | 136 |
| HISTORY HL | 64 | 69 | 68 | 106 | 64 | 132 | 79 | 172 |
| HISTORY SL | 7 | 14 | 8 | 11 | 22 | 14 | 41 | 81 |
| MATH APPS SL | | | | | 58 | 81 | 74 | 172 |
| PSYCHOLOGY SL | 46 | 19 | 14 | 44 | 27 | 56 | 57 | 75 |

Costs

| | | CP within DP (10k start-up estimate) | CP standalone (35k start-up estimate) |
|------------------------------|--|--|---|
| Year of consideration | <u>ONE-TIME Authorization services fee*</u> | \$8,500* | \$4000 |
| Year 1 | <u>Candidacy, consultation and authorization services Y1 fee</u> | (PAID) | \$9500 |
| | Minimum Training Costs: CP Coordinator + 2 IB DP course teachers + Personal and Professional Skills teacher + Reflective Project supervisor | | |
| Year 2 | <u>Annual school fee</u> (Post authorization) | \$1,610* | \$9500 |
| | <i>Annual school fee for CP Standalone</i> | | \$9240 (Y3) |
| Year 7 | DP-CP Combined Evaluation Visit (Every 5 years) | \$5,500 | |
| Subject fees | per subject per candidate (2 subject minimum) | \$123 (\$246) | |
| Credits | Credit vouchers are available for two online workshops | (IB provided) +\$900 | |

***All fees are in \$USD and are subject to change.**



Thank you!

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