



# COURSE CATALOG

2024–2025



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## Foreword

*This handbook was designed as a guide for counselors, school staff, students, and families on Des Moines Public Schools policies and procedures. As with any handbook, it is intended to be a common guide – not a regulatory manual. The purpose of this document is to help counsel students on their personal pathway to academic achievement.*

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# Educational Philosophy

## **Vision**

Becoming the model for urban education in the United States.

## **Mission Statement**

The Des Moines Public Schools Exist So That Graduates Possess the Knowledge, Skills and Abilities to Be Successful at the Next Stage of Their Lives.

## Student Expectations

### **Students demonstrate proficiency and understanding of a rigorous core curriculum:**

- They demonstrate proficiency in reading, writing, speaking and listening
- They demonstrate proficiency in mathematics, including algebra and geometry
- They demonstrate financial and economic literacy
- They demonstrate an understanding of the value of fine and performing arts in society
- They demonstrate proficiency in technological and information literacy
- They demonstrate proficiency in science, including life, earth and physical science

### **Students possess the knowledge and skills to be self-directed and autonomous:**

- They demonstrate critical thinking and problem-solving skills
- They exercise sound reasoning in making complex choices
- They exhibit creative, innovative and entrepreneurial thinking
- They understand the attributes of physical and mental well-being

### **Students have world awareness:**

- They learn from and work with individuals representing diverse cultures and religions in a spirit of mutual respect in school, work and community
- They understand the rights and obligations of citizenship at local, state, national, and global levels
- They are actively engaged in community life
- They will be exposed to languages and cultures of the world

# Graduation Requirements and Planning

## Required Credits for Graduation

For students in the Classes of 2021-2025, the following credits must be fulfilled to graduate and earn a diploma.

REQUIREMENTS	UNITS OF CREDIT
<b>Social Studies</b> REQUIRED: US History, US Government, Personal Economics, and 1.0 additional credit in social studies	<b>3.0</b>
<b>English</b> REQUIRED: English I, II, and English III or AP Lang and Comp, and 1.0 additional credit in English	<b>4.0</b>
<b>Mathematics</b> REQUIRED: Semester 1 and 2 of Algebra I (or higher-level math course)	<b>3.0</b>
<b>Science</b> HIGHLY RECOMMENDED: Biology, Chemistry, Physics, Earth Science	<b>3.0</b>
<b>Applied/Fine Arts</b>	<b>1.5</b>
<b>Physical Education</b> REQUIRED: In compliance with Iowa law, students must be enrolled in physical education each year of high school unless an exemption is approved by the building principal. All students must complete CPR training.	<b>1.0</b>
<b>Electives</b>	<b>7.5</b>
<b>TOTAL</b>	<b>23.0</b>

# Post-Secondary Readiness Requirements

There are several paths that students can choose from for success after completing high school. The guide below can help students and their families have conversations with school counselors as they make decisions about their goals for after graduation and the choices they need to make in high school to reach those goals.

## High School Diploma

<b>English</b>	English I, II, and English III or AP Lang and Comp, and 1.0 additional credit in English
<b>Math</b>	Semester 1 and 2 of Algebra I (or higher-level math course), and 2.0 additional credits in Math.
<b>Science</b>	3.0 credits in Science.
<b>Social Studies</b>	US History, US Government, Personal Economics, and 1.0 additional credit in social studies
<b>Applied/Fine Arts</b>	1.5 credits in the Applied or Fine Arts.
<b>World Languages</b>	World Languages count toward the 7.5 required elective credits.
<b>Physical Education</b>	At least one semester each year of high school unless exemption requirements are met. All students must complete CPR training.
<b>Personal Finance</b>	0.5 credits

## Career & Technical, Apprenticeship, and Industry Certification Programs

<b>English</b>	English I, II, and English III or AP Lang and Comp, and 1.0 additional credit in English
<b>Math</b>	Semester 1 and 2 of Algebra I (or higher-level math course), and 2.0 additional credits in Math.
<b>Science</b>	3.0 credits in Science.
<b>Social Studies</b>	US History, US Government, Personal Economics, and 1.0 additional credit in social studies
<b>Applied/Fine Arts</b>	1.5 credits in the Applied or Fine Arts.
<b>World Languages</b>	World Languages count toward the 7.5 required elective credits.
<b>Physical Education</b>	At least one semester each year of high school unless exemption requirements are met. All students must complete CPR training.

## Post-Secondary Readiness Requirements (cont.)

### Regents Institutions (U of I, UNI, ISU)

<b>English</b>	Four years with an emphasis on the communication skills of writing, reading and listening, and the analysis and interpretation of literature. In addition, courses in journalism and media literacy will be valuable.
<b>Math</b>	Four years, one in each year of high school, including Geometry and Algebra 2. Reference <a href="https://www.dmschools.org/ready-for-algebra/dmps-secondary-math-pathway/">https://www.dmschools.org/ready-for-algebra/dmps-secondary-math-pathway/</a> for additional guidance.
<b>Science</b>	Three years, one in each year of high school. To be really prepared, take at least one year each of biology, chemistry, and physics.
<b>Social Studies</b>	Three years are essential, but four is better. Take at least one year each of U.S. history and world history. Additional courses in anthropology, economics, political sci., psychology, and sociology provide important understandings.
<b>Applied/Fine Arts</b>	1.5 credits in the Applied or Fine Arts.
<b>World Languages</b>	Varies by program. Standard expectation: Two consecutive years of a single world language for admittance. Many require an additional semester or year study upon university enrollment. Three or four consecutive years in one world language to prevent mandatory enrollment at the university.
<b>Physical Education</b>	At least one semester each year of high school and must complete CPR training.

### Highly Selective Colleges & Universities

<b>English</b>	Four years with an emphasis on the communication skills of writing, reading and listening, and the analysis and interpretation of literature, including AP credit. In addition, courses in journalism and media literacy will be valuable. Extracurricular activities in debate, speech, newspaper, and yearbook will further develop essential competencies.
<b>Math</b>	Four years, one in each year of high school, including advanced placement math courses like calculus and statistics. Reference <a href="https://www.dmschools.org/ready-for-algebra/dmps-secondary-math-pathway/">https://www.dmschools.org/ready-for-algebra/dmps-secondary-math-pathway/</a> for additional guidance.
<b>Science</b>	Four years, one in each year of high school. To be really prepared, take at least one year each of biology, chemistry, and physics, and an AP Science course.
<b>Social Studies</b>	Four years, one in each year of high school. Take at least one year each of U.S. history and world history, and an AP Social Studies course. Additional courses in anthropology, economics, political sci., psychology, and sociology provide important understandings.
<b>Applied/Fine Arts</b>	1.5 credits in the Applied or Fine Arts.
<b>World Languages</b>	Varies by program. Standard expectation: Three or four consecutive years of a single world language or demonstration of proficiency for admittance.
<b>Physical Education</b>	At least one semester each year of high school and must complete CPR training.

# Ready-To-Graduate Course Planner

All students must complete a set of required courses in English, Social Sciences, Mathematics, Science, Applied/Fine Arts and Physical Education, plus elective credits. The planner below is designed to help students, families and counselors determine a plan of study with the goal of graduation.

		9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
<b>English</b>	4.0 credits	English I <input type="checkbox"/> completed	English II <input type="checkbox"/> completed	English III or AP Lang <input type="checkbox"/> completed	Choose from an additional English credit course. <input type="checkbox"/> completed
<b>Math</b>	3.0 credits	Algebra I <input type="checkbox"/> completed	Geometry: <input type="checkbox"/> completed	Math Course: <input type="checkbox"/> completed	Math Course (if less than 3.0 credits are earned) <input type="checkbox"/> completed
<b>Science</b>	3.0 credits	Science Course <input type="checkbox"/> completed	Science Course <input type="checkbox"/> completed	Science Course <input type="checkbox"/> completed	Science Course (if less than 3.0 credits are earned): <input type="checkbox"/> completed
<b>Social Studies</b>	3.0 credits	Modern US History <input type="checkbox"/> completed	AP Human Geo or SS Elective <input type="checkbox"/> completed	AP SS Course or SS Elective <input type="checkbox"/> completed	US Government and Personal Economics <input type="checkbox"/> completed
<b>Physical Education</b>	1.0 credit	At least one semester each year or documented and approved exemption: 9 <sup>th</sup> <input type="checkbox"/> 10 <sup>th</sup> <input type="checkbox"/> 11 <sup>th</sup> <input type="checkbox"/> 12 <sup>th</sup> <input type="checkbox"/> <input type="checkbox"/> completed CPR training			
<b>Fine/Applied Arts</b>	1.5 credits	Courses: <input type="checkbox"/> completed	Courses: <input type="checkbox"/> completed	Courses: <input type="checkbox"/> completed	Courses: <input type="checkbox"/> completed
<b>Electives</b>	7.5 credits	Additional Electives to reach 7.5 credits: _____ <input type="checkbox"/> completed _____ <input type="checkbox"/> completed _____ <input type="checkbox"/> completed _____ <input type="checkbox"/> completed _____ <input type="checkbox"/> completed _____ <input type="checkbox"/> completed			

## **Credit Acquisition for Grade Level Advancement**

In order to be considered on track to graduate with your class, credits must accumulate to...

- 5.75 credits going into your sophomore / 10<sup>th</sup> grade year
- 11.5 credits going into your junior / 11<sup>th</sup> grade year
- 17.25 credits going into your senior / 12<sup>th</sup> grade year
- 23.0 credits for graduation and diploma

## **Credit Transfer Policy**

Students seeking to transfer credits from another accredited high school program must submit a transcript to their building registrar. The district Teaching and Learning team will evaluate the transcript for content and rigor to determine if credits towards graduation can be awarded, and if so, what type of credit. DMPS reserves the right to only recognize credits awarded by appropriately accredited institutions and earned in courses aligned to standards used by DMPS curriculum. If possible, prior approval should be sought by students who are transferring for a short period of time and plan to return to DMPS (example: a summer school program delivered online) to ensure credits will be recognized.

## **Statement of Non-Discrimination**

The Des Moines Independent Community School District does not discriminate on the basis of race, color, national origin, gender, disability, religion, creed, age (for employment), marital status (for programs), sexual orientation, gender identity and socioeconomic status (for programs) in its educational programs and its employment practices.

There is a grievance procedure for processing complaints of discrimination. If you have questions or a grievance related to this policy, please contact the District Equity and Inclusion Program Manager, 2100 Fleur Drive, Des Moines, IA 50321; phone: 515-242-7732. Complaints can also be directed to the Iowa Civil Rights Commission, 400 E. 14th Street, Des Moines, IA 50319, (515) 281-4121, or Region VII Office for Civil Rights, Citigroup Center 500 W. Madison Street, Suite 1475 Chicago, IL 60661.



## Weighted Courses

Weighted courses are classes in which the final/semester grade is assigned an advantage when calculating a grade point average (GPA). Weighted courses give students an advantage for enrolling in and completing higher-level classes or more challenging learning experiences. Des Moines Public Schools offer two types of weighted courses: Advanced Placement (AP) and concurrent credit courses. Students transferring to DMPS with grades from AP, concurrent credit, and/or International Baccalaureate (IB) courses will be considered for weighting.

### Advanced Placement Courses

- Advanced Placement (AP) courses are college-level courses taken in high school. A national exam is given in May of each year and scored on a 1 to 5 scale. A score of a 3, 4 or 5 is considered passing and leads to college credit in most all 4-year colleges and universities. There are more than 30 different Advanced Placement courses available to high school students. You can find a current list of DMPS AP course offerings at each school by visiting <http://ap.dmschools.org/parentsstudents.html>
- Research proves that the knowledge and experience of taking a college-level course in high school will better prepare you for success after high school. You will learn many important skills in organization, time management, reading, writing and habits of mind. The AP course designation on your transcript shows college admissions officers that you are willing to challenge yourself with difficult courses and can help with scholarship competitions as well.
- Students must take an AP exam to earn college credit. There is an exam fee. Students may qualify for fee assistance. Students should connect with their school counselor to determine their eligibility for fee assistance.
- The rewards of taking an AP exam include an opportunity to earn a passing score and receive college credit while in high school. In addition, a passing score may lead to advanced placement in college. Taking difficult exams like AP exams prepares you for other challenging tests such as SATs, ACTs, and other college entrance tests.

### Concurrent Credit Courses

- Courses offered for concurrent credit stem from agreements between high schools and community colleges. These agreements allow high school students to enroll in a college course taught in a DMPS school. Academic credit earned from both the college and the high school comes at no additional cost to the student.
- Concurrent credit courses include both academic courses as well as career & technical courses. These courses are steppingstones from high school to college, serving as a path to a variety of post-secondary opportunities.
- Credits earned are accepted at most in-state institutions, including Regents schools. Acceptance and transference of credit is at the discretion of the receiving school. Students and families are encouraged to investigate the policies at prospective post-secondary schools.
- Completion of a concurrent credit course is recorded on the transcripts of both the high school and the post-secondary school.

# Grading and Reporting

Des Moines Public Schools commits to all stakeholders to provide *fair, accurate, specific, and timely* information regarding student progress towards agreed-upon common standards as well as feedback for next steps and growth areas. In order to meet these commitments, DMPS uses standards-referenced grading – instructional approaches that are aligned to learning standards.

## Six Guiding Practices

Six Guiding Practices are implemented K-12 districtwide to serve as a common framework:

1. A consistent 4-point grading scale will be used.
2. Letter grades, derived from the 4-point scale, will be based solely on achievement of course/grade level standards.
3. Scores will be based on a body of evidence.
4. Achievement will be organized and reported by learning topic, which will be converted to a grade at semester's end.
5. Students will have multiple opportunities to demonstrate proficiency.
6. Accommodations and modifications will be provided for exceptional learners.

## Translation of a Score to a Final Grade

Teachers collect a body of evidence for each learning topic. At semester, teachers will examine the evidence and determine a final topic score for each topic. Final topic scores are then averaged and converted to a grade using the following conversion scale:

<b>A (Honors)</b>	<b>3.50-4.00</b>
<b>A</b>	<b>3.00-3.49</b>
<b>B</b>	<b>2.50-2.99</b>
<b>C</b>	<b>2.00-2.49</b>
<b>D</b>	<b>1.75-1.99</b>
<b>F</b>	<b>0.00-1.74</b>

## SRG, GPAs, and College Admissions

All scores will be converted to a grade at the end of each semester. Student GPAs will be calculated the same way they always have and transcripts will look the same. Colleges want grade point averages to be an accurate reflection of student learning and understanding. Grades should correlate to a student's performance on high-stakes assessments such as the Iowa Assessments or ACT.

## Credit and Topic Recovery

Before a student finds themselves in a situation where they are failing a course, schools will focus on supporting students in recovery of learning at the topic level. By working to recover topics before the end of a course, students are more likely to stay on track for graduation.

DMPS provides a variety of credit recovery options. Students who qualify for the Flex Academy Program can participate in full course or topic recovery with a content teacher. They may choose their learning modality, which includes but is not limited to: online learning, an offline independent study, or one-on-one blended learning instruction with the teacher. Any students who do not qualify for the Flex Academy Program may retake a course for the purpose of earning a higher grade (please connect with your school counselor for more information on this process). The higher of the two grades will be recorded on the transcript. Courses may be retaken only at the comprehensive high schools, Central Campus, or Virtual Campus and must be retaken during the regular school year.

Students are required to submit evidence of learning for every reported topic in a course. Failure to do so results in an F/IE (fail/insufficient evidence) at semester. Students who earn an F/IE in a course and successfully complete the course at a later time will receive a new letter grade and the F/IE will be adjusted to F/R (fail/retake) on their permanent record. The new letter grade will be calculated in the overall GPA, and the F/R will not impact the GPA.

### **More Information on SRG and Grading Practices in DMPS**

To find out more about DMPS and SRG at all levels, please visit <http://grading.dmschools.org>.

To access the Infinite Campus Parent Portal, where families can monitor student progress, please visit: <http://www.dmschools.org/infinite-campus-studentparent-portal>

## **Diploma Information**

### **Considerations for Early Graduation**

Students eligible for early graduation have some important things to consider as they choose a January or May diploma date. The date on the diploma can affect federal funding, college scholarship eligibility, child support, and social security. Students and their families should use the following information to make a choice that is right for them and their particular situation.

If a student chooses to graduate in January, they are permitted to participate in May with the rest of their graduating class, as DMPS does not currently hold a January commencement program. These students will then have a diploma dated with a January graduation date and are not allowed to attend school or required to take additional classes during the second semester. The diploma will also be held until May.

If a student meets graduation requirements at the close of S1, they may continue S2 and graduate in May with the rest of their graduating class. These students will then have a diploma with a May graduation date. It is highly suggested that these students take a minimum of 4 classes/2.0 credits during S2 so they are considered full time and eligible to receive federal funding, qualify for child support, social security, and scholarships from colleges.

## Eligibility for Participation in Extra Curricular Activities

To participate in extracurricular activities for which competition is required for participation, a student must have passed all subjects in the previous two semesters and be enrolled in at least four academic or for-credit courses in the current semester. An extracurricular activity is defined as one for which no grade is given and is not part of a graded course.

**Students participating in the following activities must comply with the eligibility requirement by passing all subjects:**

- All athletics
- Cheerleading
- Student government
- Drill team\*
- Color guard\*
- *\*Does not apply to students enrolled in JROTC or band.*

**Special consideration will be given to self-contained special education students, and other special needs students; e.g., LEP, special education resource.**

**Students enrolled in courses that require extracurricular activity as part of the course grade need not establish eligibility for participation. The courses are:**

- Marching band
- Pep band
- Jazz band
- Orchestra
- Choir
- Chamber choir
- Show choir
- Debate
- Courses with varying titles which have a performance requirement

**Students not enrolled in the courses listed above or others to which the policy might apply must establish eligibility requirements if they wish to participate in a school production or an activity.**

**Eligibility may be monitored at:**

- the beginning of each activity's season,
- the quarterly grading period,
- the semester grading period.
- Additional eligibility checks may be conducted at any time as needed for students participating in any school activity.

Teachers will be encouraged to monitor students' academic progress during the semester and notify coaches and sponsors about unsatisfactory class work and failing grades. The purpose is to emphasize the importance of academic success as students participate in school activities.

## Eligibility Reference Non-Athletic Activities

Curricular – Graded	Ineligible
<ul style="list-style-type: none"> <li>• Home Concerts/Performances</li> <li>• District Marching Band (IHSMA)</li> <li>• State Marching Band (IHSMA)</li> <li>• State Show Choir (IHSMA)</li> <li>• State Speech (IHSSA)</li> <li>• State Debate (IHSSA)</li> </ul> <p><b>Exempt from Scholarship Rule (ineligibility)</b></p>	<ul style="list-style-type: none"> <li>• Scored Competitions (Trophy or Place)</li> <li>• All-State Music Events</li> <li>• SCIBA</li> <li>• Honor Ensembles</li> <li>• Pep Band</li> <li>• Off-Campus Concerts/Performances</li> <li>• Parades (Excluding Summer)</li> <li>• State Solo/Ensemble</li> <li>• State Jazz Band (IHSMA)</li> <li>• IHSMA/IHSSA Sanctioned Events</li> <li>• Marching at Football Games</li> <li>• Jazz Championships</li> <li>• Show Choir</li> <li>• Jazz Choir</li> <li>• Theatre Plays/Musicals</li> </ul>

The 30 day academic policy will be replaced with ineligibility of a single event during the activity’s season due to the unique nature and timing of co-curricular events. This applies to each ensemble the participant is involved with according to the chart above. The list above is not comprehensive but is merely meant as a guide for decision making.

The student will continue to demonstrate full participation in all courses during the 30 day ineligibility.

\*These events run concurrently with a students graded performance of a curricular course and therefore cannot make them ineligible under the scholarship rule according to Iowa Department of Education Policy (Click [HERE](#) for more information)

All questions regarding non-athletic activity eligibility should be directed to:

**Curriculum Coordinator**  
Christian White  
[christian.white@dmschools.org](mailto:christian.white@dmschools.org)

# Course Listings

The courses listed in this catalog represent the entire selection offered across the district. Not all courses are available at every high school building. A variety of factors, including student interest, staffing, and space & equipment, determine which courses are offered and taught in the individual buildings. Students and families are encouraged to work with their school counselor to determine their academic plans while considering availability of courses in their home high school and their eligibility for educational programs. The course catalog is updated annually. The most current version of this document can be accessed on the district website at [www.dmschools.org](http://www.dmschools.org).

## English and Language Arts

A cohesive and standards aligned approach to literacy is the cornerstone of an equitable education. The Des Moines Public Schools is committed to providing a guaranteed and viable curriculum that is representative of the community we serve and prepares students with 21st century literacy skills to be used in post-secondary education and the workplace.

Core and elective offerings work in tandem to construct a diverse narrative of humanity and society through which students must engage in all domains of literacy: reading, writing, speaking & listening, and language. Grade-level complex texts, engaging topics, and rigorous tasks that are vertically aligned to ensure that all students grow into critical readers, writers, and active members of society.

### Curriculum Coordinator:

Elizabeth Sheridan

[elizabeth.sheridan@dmschools.org](mailto:elizabeth.sheridan@dmschools.org)

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### English I (LA103/104)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 English Credit/Semester

English I develops basic structures of reading and writing, using a variety of works from diverse authors to increase student interest, awareness, appreciation, and understanding of a variety of genre as well as opportunities to apply the writing process to promote communication through written expression. Students will come to understand that personal expression and the way we express ourselves is influenced by society and culture through literary analysis, reflective writing, persuasive writing and character analysis. LA103(ELL) and LA104(ELL) are also available for students requiring additional language scaffolding support. Lexiles 415-635.

### Power English (LA1210/1220)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Elective Credit/Semester

Power English supports students in developing essential reading, writing, vocabulary, and analysis skills. This course, when coupled with a comprehensive English course, helps students fill in gaps in skills to secure success in high school English coursework.

**For Special Education use ONLY.**

### English II (LA205/206)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 English Credit/Semester

English II continues the development of the structures of communication with an emphasis on the language arts of speaking and listening. Through the communication of ideas in both writing and speaking, students will learn to use information responsibly, accurately, and ethically. Students will communicate through a variety of mediums, including technology, to recognize the role evaluation and response have on oral communication. LA205(ELL) and LA206(ELL) are also available for students requiring additional language scaffolding support.

## **Journalism (EN) (LA220)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 English Credit

Journalism (EN) allows students to explore the fundamental concepts behind the communications industry, including print, broadcast and advertising and the Internet. Students will study history, writing, editing, law and the packaging process, as well as obtain the understanding of deadlines and interviewing through practical application. Prerequisite for newspaper and yearbook practicum.

## **Speech (LA227)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 Elective credit

This course emphasizes critical thinking and effective communication through a variety of approaches, including public speaking and interpersonal, relational, intercultural, and nonverbal communication. Students analyze a range of verbal communications, from daily interactions and speeches by public officials to texts distributed through the mass media, and apply their analyses to practice and improve their own verbal communication styles and techniques.

## **Creative Writing I (LA303)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 English Credit

Creative Writing is a valuable course for those who have an interest in writing. The goal is to achieve a greater appreciation of literature by creating one's own fiction and by reading and responding to others' work while attending to structure and style. Students will be encouraged to select their own topics with the support and guidance of the instructor.

## **English III (LA305/306)**

PREREQUISITE: NONE | Offered: Yearlong Course | .5 English Credit/Semester

English III builds on the structures of reading and writing, using a variety of materials representing different literary forms and authors. An emphasis on American literature through a global perspective will support critical analysis of author's style, character motivation, point of view, mood, and tone. Composition will focus on synthesizing new understandings with background knowledge and gain insight into the author's craft while adhering to conventions generally established in conventions, usage, syntax, and style.

## **Mass Comm / Mass Media (LA315)**

PREREQUISITE: English I | Offered: Fall or Spring | .5 Elective Credit

Students will explore digital media production including photojournalism, podcasting and video production. Students will learn interviewing techniques, camera angles and editing software. Students will analyze existing media as well as create their own, applying skills and techniques through project-based inquiry.

## **Newspaper (LA321)**

PREREQUISITE: Journalism I | Offered: Fall and Spring | .5 Elective Credit

Repeatable. Newspaper is a hands-on laboratory course that allows students to apply the fundamental theories explored through journalism. Students will write, edit, package, produce and distribute the school's newspaper. Concepts emphasized include leadership, prioritizing, deadline meeting, interviewing, people-skill building, and business skills.

## **Yearbook (LA323)**

PREREQUISITE: Journalism I | Offered: Fall and Spring | .5 Elective Credit

Repeatable. Yearbook is a hands-on laboratory course that allows students to apply the fundamental theories explored through journalism in a real-world setting. Students will write, edit, package, produce and distribute the school's yearbook. Concepts emphasized include leadership, prioritizing, deadline meeting, interviewing, editing, teamwork and business skills.

## **English IV (LA403/404)**

PREREQUISITE: NONE | Offered: Yearlong Course | .5 English Credit/Semester

English IV includes a survey of world literature studied in a thematic approach to critically evaluate information based on relevancy, objectivity, and reliability. Students will write several compositions using expository and argumentative techniques, including a research project. This project will include an articulated research question or thesis statement, and incorporate findings while adhering to a consistent format for documentation.

## **Creative Writing 2 (LA411)**

PREREQUISITE: Creative Writing I | Offered: Fall or Spring | .5 English Credit

Creative Writing 2 is a valuable course for those who have an interest in writing. The goal is to achieve a greater appreciation of literature by creating one's own fiction and by reading and responding to others' work while attending to structure and style. Students will be encouraged to select their own topics with the support and guidance of the instructor.

## **\*AP English Language & Composition (LA501/502)**

PREREQUISITE: English II | Offered: Yearlong Course | .5 English Credit/Semester

AP English Language and Composition enables a student to be an effective writer at the postsecondary level. Students read, analyze, and practice a variety of discursive prose. Through the organized study of language skills and the structures of sentences, paragraphs, and expository patterns, students analyze and implement the resources of the English language. Completion of the AP exam is an expectation for all AP courses.

## **\*AP English Literature & Composition (LA503/504)**

PREREQUISITE: English II | Offered: Yearlong Course | .5 English Credit/Semester

AP English Literature and Composition is designed to engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students should consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. The composition instruction ranges from basic principles to more refined and advanced matters of style, requiring several compositions ranging from the imaginative and personal to the formal and detached. Completion of the AP exam is an expectation for all AP courses.

## **\*College Speech (LA521)**

PREREQUISITE: English II | Offered: Fall or Spring | .5 Elective Credit

DMACC SPC 101, Fund of Oral Communication, 3 credits

This dual-credit course emphasizes critical thinking and effective communication through a variety of approaches, including public speaking and interpersonal, relational, intercultural, and nonverbal communication. Students analyze a range of verbal communications, from daily interactions and speeches by public officials to texts distributed through the mass media, and apply their analyses to practice and improve their own verbal communication styles and techniques.

## **\*College Creative Writing (LA526)**

PREREQUISITE: English II | Offered: Fall or Spring | .5 English Credit

DMACC ENG 221, Creative Writing, 3 credits

College Creative Writing is a dual-credit class. Though it is taken at DMPS High Schools and students receive English credit, DMACC competencies for ENG 221 will be assessed for college credit; in essence, this is a collegiate class. This course will focus on the processes of writing when creating fiction and poetry by applying the elements of both those genres into the practice of composition. Students will study the elements of poetry and fiction through samples of professional writers and their peers and apply these techniques when composing their own pieces. The class will culminate in a writing portfolio in which students will keep their writings along with analyses of where these ideas came from and some of the techniques used when composing.



### **\*College Tech Comm S1 (LA527) and \*College Tech Comm COM703 (LA528) @ Central**

PREREQUISITE: None | Offered: Yearlong Course

LA528 offers DMACC COM 703, Communication Skills, 3 credits

Reading, writing, speaking and listening are studied as methods of exploring and evaluating technological advances in trades and industry. Adapting communication for different audiences, evaluating industry-related literature and basic business writing are emphasized. The integrated nature of the course allows students to make connections, ask authentic questions, and engage in relevant, meaningful activities that can be connected to real life

### **\*College AP English Literature & Composition S1 (LA529)**

PREREQUISITE: English II | Offered: Fall | .5 English Credit

DMACC LIT 101, Intro to Literature, 3 credits

AP English Literature and Composition is a dual-credit class. Though it is taken at DMPS High Schools and students receive English credit, DMACC competencies for LIT 101 will be assessed for college credit; in essence, this is a collegiate class. This is a one-year high school course equivalent to two semesters of college course work designed to engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students should consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. The composition instruction ranges from basic principles to more refined and advanced matters of style, requiring several compositions ranging from the imaginative and personal to the formal and detached. Completion of the AP exam is an expectation for all AP courses.

### **\*College AP English Literature & Composition S2 (LA530)**

PREREQUISITE: LA529 | Offered: Spring | .5 English Credit

DMACC LIT 185, Contemporary Literature, 3 credits

AP English Literature and Composition is a dual-credit class. Though it is taken at DMPS High Schools and students receive English credit, DMACC competencies for LIT 185 will be assessed for college credit; in essence, this is a collegiate class. This is a one-year high school course equivalent to two semesters of college course work designed to engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students should consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. The composition instruction ranges from basic principles to more refined and advanced matters of style, requiring several compositions ranging from the imaginative and personal to the formal and detached. Completion of the AP exam is an expectation for all AP courses.

### **\*College AP English Language & Composition (LA531/532)**

PREREQUISITE: English II | Offered: Yearlong Course | .5 English Credit/Semester

LA531 offers DMACC ENG 105, Composition I, 3 credits

LA532 offers DMACC ENG 106, Composition II, 3 credits

AP English Language and Composition is a dual-credit course that enables a student to be an effective writer at the postsecondary level. Students read, analyze, and practice a variety of discursive prose. Through the organized study of language skills and the structures of sentences, paragraphs, and expository patterns, students analyze and implement the resources of the English language. Completion of the AP exam is an expectation for all AP courses.

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# Mathematics

Mathematics is a tool we use to understand and interpret our world. In our increasingly technological economy, those who understand and know how to apply mathematics have significantly enhanced opportunities in continuing education and later in life. The key to opening the door to these opportunities is a deep understanding of important mathematical concepts and procedures. In Des Moines Public Schools, we will ensure all students have equitable access to a rigorous math experience that is supported by a balance of *conceptual understanding*, *real-world application*, and *procedural skills and fluency*.

The end result is a student who knows, uses, and enjoys mathematics.

When considering which math classes best align to your future plans, be sure to check the Post-Secondary Readiness Requirements in this catalog as well as our pathways guidance at <https://www.dmschools.org/ready-for-algebra/dmps-secondary-math-pathway/>

## Curriculum Coordinator:

Isaac Rodenberg

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## Algebra I (MTH111/112)

PREREQUISITE: NONE | Offered: Fall | .5 Algebra Credit/Semester

Algebra is the foundation of higher mathematics. Students will explore functional relationships, use algebraic systems and properties, represent patterns of change, and apply equations and inequalities to solve the problems. Special emphasis is placed on application of skills and concepts through problem solving. MTH111(ELL) and MTH112(ELL) are also available for students requiring additional language scaffolding support.

## Geometry (MTH211/212)

PREREQUISITE: Algebra I | Offered: Yearlong Course | .5 Math Credit/Semester

Geometry is the study of shape. Students will develop deductive reasoning skills as they consider properties of and relationships among shapes, location of shapes, transformation of shapes, and special shapes such as circles and triangles. Technology is used to enhance geometric experimentation and situations.

## Algebra II (MTH311/312)

PREREQUISITE: Algebra I | Offered: Yearlong Course | .5 Math Credit/Semester

This course extends basic algebraic skills developed in Algebra I. Students study patterns in functions and their graphs, polynomials, and complex numbers. Students study trigonometric functions and their graphs, exponential and logarithmic functions, and statistical inferences.

## Exploring Justice through Mathematics (MTH325/326)

PREREQUISITE: Geometry | Offered: Yearlong Course | .5 Math Credit/Semester

Exploring Justice through Mathematics will focus around questions of justice and equity through the lens of different math domains such as statistics, geometry, and functions. This class is designed for students to develop their skills in representing, analyzing, and impacting real-world issues related to justice.

## Exploring Math in the Trades (MTH327/328)

PREREQUISITE: Geometry | Offered: Yearlong Course | .5 Math Credit/Semester

Exploring Math in the Trades will focus around how math is utilized in specific trades such as construction, plumbing, and electrical fields. Students will work on mathematical conceptual understanding and fluency required to enter a job in a trade field.

### **Compacted Algebra II/Pre-Calculus (MTH351/352)**

PREREQUISITE: Algebra I and Geometry | Offered: Yearlong Course | .5 Math Credit/Semester

This class has a strong focus on expanding students' understanding of functions and their graphs, polynomials, rational functions, and complex numbers. This course will cover additional topics beyond Algebra II to prepare students for AP Calculus. This class is designed for students interested and motivated to take AP Calculus and will be an intense, fast-paced course.

### **\*AP Pre-Calculus (MTH401/402)**

PREREQUISITE: Algebra II | Offered: Yearlong Course | .5 Math Credit/Semester

Pre-Calculus SI is the post-algebra II class to bridge students to Calculus topics. Students explore functions and their graphs, polynomials, rational functions, exponential and logarithmic functions, and conics. In the second half of the course, students explore more complex trigonometry, vectors and polar coordinates, systems and matrices, and beginning calculus concepts

### **\*AP Calculus AB (MTH501/502)**

PREREQUISITE: Pre-Calculus | Offered: Yearlong Course | .5 Math Credit/Semester

The AP Calculus course follows the Advanced Placement syllabus and prepares students for the AP test in the spring. Course study includes properties of functions, limits, differential calculus, and integral calculus. Use of the graphing calculator is an integral part of this course and its use is required on the advanced placement test. Completion of the AP exam is an expectation for all AP courses.

### **\*AP Statistics (MTH551/552)**

PREREQUISITE: C or higher in Algebra II | Offered: Yearlong Course | .5 Math Credit/Semester

The AP statistics course follows the Advanced Placement syllabus and prepares students for the AP test in the spring. Students will plan and conduct a study, explore random phenomena using probability and simulation, estimate population parameters and test hypotheses. Completion of the AP exam is an expectation for all AP courses.

### **College Technical Math S1 (MTH569) @ Central Campus**

COREQUISITE: Multiple Central Campus Programs | Offered: Fall Semester | .5 Math Credit

This course is an application of the mathematics involved with many Central Campus programs, and offered at Central Campus ONLY. Topics covered include fundamental operations with whole numbers, fractions, decimals, and signed numbers; percent; geometric figures and basic constructions; area and volume formulas; English/Metric systems; measurements; and the interpretation of graphs and charts. This math class is integrated to the specific mathematical calculations of each program of study. Note: This course does not meet RAI requirements.

### **\*College Technical Math S2 (MTH570) @ Central Campus**

PREREQUISITE: MTH569 | Offered: Spring Semester | .5 Math Credit

DMACC MAT 772, Applied Math, 3 credits

This course is an application of the mathematics involved with many Central Campus programs, and offered at Central Campus ONLY. Topics covered include fundamental operations with whole numbers, fractions, decimals, and signed numbers; percent; geometric figures and basic constructions; area and volume formulas; English/Metric systems; measurements; and the interpretation of graphs and charts. This math class is integrated to the specific mathematical calculations of each program of study. Note: This course does not meet RAI requirements.

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# Social Studies

The interconnected nature of the world makes in depth, relevant social studies instruction essential for all students. Our goal is to provide all students with authentic and rigorous learning opportunities that spark interest in the social studies and enhance students' abilities to understand the people and spaces around them.

Des Moines Public Schools offers high school students required and elective courses that specialize in the various disciplines within the social sciences.

## Curriculum Coordinator

McKenzie Kennedy

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## Modern US History (SOC103/104)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

The Modern United States History course provides students with the analytical skills and factual knowledge to deal critically with the events in our nation's history. Instructional units invite students to travel thematically through US History since the Civil War. These units include the study of Domestic Reform, Immigration and Migration, Economics, and Conflict. Students will then examine how the history of each theme impacts our country today. Students also learn to assess historical materials, determine their relevance to a given problem, assess the reliability of sources, and present reasoning and evidence clearly and persuasively in writing. SOC103(ELL) and SOC104(ELL) are also available for students requiring additional language scaffolding support.

## Psychology (SOC205)

PREREQUISITE: 1.0 Social Studies Credit | Offered: Fall or Spring | .5 credit

This course is designed to provide students with a basic understanding of human behavior and social relationships. The purpose is to create an awareness of the uniqueness of the individual and help students apply psychological principles to the solution of personal problems. Psychology will help students identify personal needs, values, and goals to assist them as they make career choices and family decisions. This course will also provide students with an understanding of the learning process and an appreciation of psychology as a field of knowledge based on scientific methods of research. The course is composed of the following instructional units: history and methods of psychology, the biology of psychology, cognitive psychology, human development, social psychology, and variations (psychological disorders and treatments).

## Sociology (SOC209)

PREREQUISITE: 1.0 Social Studies Credit | Offered: Fall or Spring | .5 credit

This course is designed to provide students with a basic understanding of the society in which they live by analyzing and evaluating the function of major social institutions, the effects of social change, and the origin and impact of prejudice, discrimination, stereotyping, and social stratification. This course will help students develop a broad understanding of culture and the ability to think objectively as they seek solutions to current social problems.

## Global Black History (SOC261)

PREREQUISITE: 1.0 Modern US History | Offered: Fall or Spring | .5 credit

Students are exposed to raw and truthful history about Black people starting before the slave trade. The course focuses on celebrating the history of Black people both in Africa and during and after the diaspora. We will discuss how African and African American histories are intertwined. Students will leave the course with a more in-depth description of global Black experiences. A central goal of this course is to leave students feeling empowered and recognized throughout history. That previously marginalized groups are centered and celebrated.

### **African American Studies (SOC263)**

PREREQUISITE: 1.0 Modern US History | Offered: Fall or Spring | .5 credit

The goal of this course will be gaining a better understanding about the experiences and history of Black people in the United States. Primarily through the study of cultural influence, political impact, and historical context. Students will gain more knowledge about African Americans and their impacts on the United States. The historical aspects of the course will be connected to contemporary and current issues to build deeper understanding of the integral part Black Americans have played in the development of the United States. A central goal of this course is to leave students feeling empowered and recognized throughout history. That previously marginalized groups are centered and celebrated.

### **Indigenous/Native Peoples' History (SOC265)**

PREREQUISITE: 1.0 Modern US History | Offered: Fall or Spring | .5 credit

This class will provide a real and raw depiction of the history of native and indigenous people. Students will learn about the many indigenous nations within the geographic areas now known as the United States. We will celebrate the diverse histories and cultures of these people as well as investigate the oppression of indigenous people. It's important to analyze the injustice and oppression but also celebrate their joy. Indigenous people thrived pre-European contact and continue to live in resistance. A central goal of this course is to leave students feeling empowered and recognized throughout history. That previously marginalized groups are centered and celebrated.

### **Chicano/a Studies (SOC267)**

PREREQUISITE: 1.0 Modern US History | Offered: Fall or Spring | .5 credit

This course will provide students an intersectional lens to analyze the Chicano/a identity, movement and experience in the U.S. and their strong ties with Mexico and Indigenous peoples. A central goal of this course is to leave students feeling empowered and recognized throughout history. That previously marginalized groups are centered and celebrated.

### **Asian American and Pacific Islanders (AAPI) History (SOC268)**

PREREQUISITE: 1.0 Modern US History | Offered: Fall or Spring | .5 credit

This course introduces students to the history of people of Asian and Pacific Islanders ancestry in the United States. Students will investigate several timely issues facing the Asian American community today. Asian American History will explore law, politics, and social interactions. The course will focus on the similarities and differences between many Asian ethnicities exploring culture and values with the hope of understanding why the Asian American identity is unique in comparison to other races in the U.S. Students will investigate the Model Minority Myth, Generation-Gap, Civic Interactions, etc.

A central goal of this course is to leave students feeling empowered and recognized throughout history. That previously marginalized groups are centered and celebrated.

### **Latin American History (SOC269)**

PREREQUISITE: 1.0 Modern US History | Offered: Fall or Spring | .5 credit

This course will explore the complexity of Latin American history (Mexico, Central America, South America and the Caribbean). Students will analyze colonization through an intersectional lens and its direct effects on social injustice in Latin America. Students will be provided with tools to reflect on intersectional identity and differentiate racial and ethnic identities. A central goal of this course is to leave students feeling empowered and recognized throughout history. That previously marginalized groups are centered and celebrated.

### **LGBTQ+ History (SOC361)**

PREREQUISITE: 1.0 Modern US History | Offered: Fall or Spring | .5 credit

This is a course to provide students with the tools to do identity work, assess history with an intersectional lens and provide the much-needed history of the LGBTQ+ community. At the end of the course students should leave with the understanding the rich history of the community, the importance of advocacy and allyship/being an accomplice, and feeling empowered and recognized across space and time, and within academia.

### **Intersectional Feminism (SOC363)**

PREREQUISITE: 1.0 Modern US History | Offered: Fall or Spring | .5 credit

This course will evaluate the history of feminist resistance from the 18th century to modern era. Through an examination of the role gender and gender identity have played in the cultural/social, political, and economic spheres throughout U.S. history. Emphasis is placed on exploring the impact of intersectionality and activism in these histories.

### **Government (SOC405)**

PREREQUISITE: 1.0 Modern US History | Offered: Fall or Spring | .5 credit

The ultimate goal of this one semester course is active, responsible citizenship. The course provides students with multiple opportunities to develop an analytical perspective on government and politics in the United States, to develop civic commitment and capacity, and to build a well-informed, thoughtful response to the course driving question: What is the proper role of government in a democratic society? This question will be used throughout the course. Students return to it frequently, revising and deepening their understanding and responses in light of the concepts they are learning such as the foundation of U.S. government, political beliefs/behaviors, elections and voting, and policy making institutions.

### **Personal Economics (SOC407)**

PREREQUISITE: 1.0 Modern US History | Offered: Fall or Spring | .5 credit

The study of personal economics is a study of choices and decision-making. This course provides students with an opportunity to develop sound decision-making procedures, based on his/her values, and to evaluate alternative solutions to economic problems. Economics will help students understand how our economy works and how economic incentives influence consumers, business owners, and investors. Students will focus on setting goals, saving and spending, credit and debt, investing, and measuring financial risk. By developing an awareness and perception of economics as it is interwoven in other areas of existence, students gain insight and understanding of business, government and themselves.

### **\*AP US History (SOC501/502)**

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

The AP U.S. History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. The course focuses on the development of historical thinking skills (chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting and synthesizing historical narrative) and an understanding of content learning objectives organized around seven themes. The themes include: identify, peopling, and America in the world, along with others. This course is in line with college and university U.S. history survey courses' increased focus on early and recent American history and decreased emphasis on other areas (special attention is given to 1491 to 1607 and from 1980 to the present). AP courses are college level courses taken in high school. A national exam is given in May of each year and scored on a 1 to 5 scale. A score of 3, 4, or 5 is considered passing and leads to college credit.

### **\*AP Government SI (SOC507/508)**

PREREQUISITE: 1.0 Modern US and 1.0 Social Studies Credit | Offered: Yearlong Course

SI = .5 social studies credit and S2 = .5 government credit

In the year-long AP U.S. Government and Politics course, students move together through five project cycles that address the six AP topics specified by the College Board for success on the Advanced Placement exam. The course is designed using the problem-based learning approach and developed with the support of the George Lucas Educational Foundation and the University of Washington, Seattle. Student-centered learning is at the heart of this course that has students participating in five project cycles: Founder's Intent, Election 2012, Government in Action, 112th Congress, and Supreme Court of the United States. Students in AP US Government and Politics will know important facts, concepts, and theories pertaining to U.S. government and politics. Students will understand typical patterns of political processes and behavior and their consequences (including the government structures and procedures, and the political effects of these structures and procedures).

### **\*AP World History (SOC509/510)**

PREREQUISITE: 1.0 Modern US | Offered: Yearlong Course | 1.0 social studies credit

In this course, students will study the cultural, economic, political, and social developments that have shaped the world from c. 1200 CE to the present. You'll analyze texts, visual sources, and other historical evidence and write essays expressing historical arguments. This course equates to an entry level college course in world history. Topics include how states formed, expanded, and declined; how areas of the world were linked through trade and how these connections affect people, culture, and environment; exploration and the power of empires; the development of new political ideas and technology that led to large-scale changes in governments, society, and economies; the acquisition of colonies and territories; as well as how global conflicts have dominated the globe since 1900.

### **\*AP Macroeconomics (SOC511)**

PREREQUISITE: 1.0 Modern US and 1.0 Social Studies Credit | Offered: Fall or Spring | .5 personal economics credit

AP Macroeconomics is a college-level course that introduces students to the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination. It also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.

### **\*AP Psychology (SOC513/514)**

PREREQUISITE: 1.0 Social Studies Credit | Offered: Yearlong Course | .5 Credit/Semester

This year-long college-level course covers in depth all topics in introductory psychology. The course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the methods psychologists use in their science and practice. AP courses are college level courses taken in high school. A national exam is given in May of each year and scored on a 1 to 5 scale. A score of 3, 4, or 5 is considered passing and leads to college credit or advanced placement in most all 4-year colleges and universities.

### **\*AP Human Geography (SOC519/520)**

PREREQUISITE: 1.0 Social Studies Credit | Offered: Yearlong Course | .5 Credit/Semester

The purpose of the AP Human Geography course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice. The particular topics studied in an AP Human Geography course should be judged in light of the following five college-level goals that build on the National Geography Standards developed in 1994: perspectives in geography, population, cultural patterns and processes; political organization of space; agricultural and rural land use; industrialization and economic development; and cities and urban land use.

### **Youth Voice for Equity (TAC207/208)**

PREREQUISITE: None | Offered: Yearlong Course | .5 Elective Credit/Semester

Repeatable. Students learn (and unlearn) ideas for examining the social world including theories about oppressions, justice, and equity. They engage critical perspectives to analyze their individual and collective educational experiences. The learning in the course is grounded in culturally relevant pedagogy that supports students in academic achievement through centering their social identities and experiences.

Youth participatory action research (YPAR) involves students conducting research on the inequities that they experience within their schools. The students learn a variety of research methods, including participant observation, survey sampling, interview techniques, photo documentation, and videography. The YPAR goal is for the students to use their research results as a vehicle for action. Students will use the knowledge they gained to guide leadership in promoting equitable school and district improvement through presentations and research products such as reports, videos, and creative expressions.

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## Science

Des Moines Public Schools seeks to provide a rigorous academic and quality laboratory experience for all students. Science education cultivates a natural curiosity that leads to investigations and interpretations about one's environment. Through experimentation, inquiry, critical thinking and team-work, all students will be provided with the experiences necessary to become responsible decision makers in an increasingly technological world.

Our curriculum fosters an appreciation for science and its technological applications and emphasizes the connection between the classroom and the scientific community. Through ongoing partnerships with Iowa State University our students and staff connect with field scientists and researchers throughout the year.

Our courses are aligned with nationally recognized standards and are delivered in an environment that provides rich opportunities for all students to access content information, through laboratory experiences and real-world problems. Our goal is to graduate students who are informed, aware, scientifically literate citizens.

### Curriculum Coordinator

Alida Acosta

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### Environmental Science (SCI201)

PREREQUISITE: NONE | Offered: Fall or Spring | .5 Science Credit

Environmental Science is a course designed to explore underlying causes and effects of earth's natural and man-made environmental problems. The interrelationships between all living things and the interactions between living things and their non-living environment will be the framework for this study of the earth and its environment. This course combines principles of biology and earth science, and would be appealing to students interested in either of these disciplines. There are many different opinions regarding the causes and effects of environmental problems. Therefore, students will be expected to practice and display a range of problem solving and critical thinking skills to examine scientific evidence and propose and conduct investigations.

### Biology (SCI203/204)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Science Credit/Semester

Biology is the study of life. This lab-based course provides a survey of life science topics with a special focus on science processes and inquiry, the cell, the molecular basis of heredity, evolution, interdependence of organisms, living systems, and behavior of organisms. Integration of these topics allows students to practice scientific thinking skills and apply them to in-class investigations. Biology serves as a prerequisite for several advanced life science courses including Environmental Science, AP Biology, and Marine Biology.

### Conceptual Physics (SCI205/206)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Science Credit/Semester

This course examines physics concepts without emphasizing high level mathematics. Basic Algebra skills are used to increase students' understanding of these concepts. Designed to make physics available to a wider audience, this course will provide students with an intellectual foundation for the study of biology and chemistry later in their high school education. Concepts such as straight-line motion, forces, energy and mechanical waves will be studied. This course will help to prepare a student to take AP Physics I during his/her junior or senior year, and should not be viewed as a substitute for an upper level Physics course. SCI205(ELL) and SCI206(ELL) are also available for students requiring additional language scaffolding support.

### Earth Science (SCI207/208)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Science Credit/Semester

This interdisciplinary course, consisting of a study of the earth and space, is an integral part of the science sequence. Topics of study include geology, space and astronomy, meteorology and oceanography. Laboratory investigations, which involve students in the inquiry processes of science, are incorporated into the course. This course is part of the sequence of science courses students should consider for a strong, diversified academic program in science.



## **Chemistry (SCI301/302)**

PREREQUISITE: Algebra I | Offered: Yearlong Course | .5 Science Credit/Semester

The nature of matter and its relationship to chemical changes is emphasized in this course. Matter is examined through a study of elements, atoms and molecules, the periodic table, chemical behavior, and energy changes. Laboratory investigations are used extensively to enable students to discover and reinforce these concepts while challenging students to use good scientific thinking and reasoning skills.

## **Forensic Science (SCI303)**

PREREQUISITE: None | Offered: Fall or Spring | .5 Science Credit

Forensic Science is an innovative and unique one semester course that develops critical thinking and problem-solving skills. Fingerprinting identification, hair analysis, and trace evidence examination are only a few of the many topics discussed. This course is rich in lab work and is a natural vehicle for students to practice science as inquiry. Forensic science is multidisciplinary; it is an applied science that encompasses the sciences, technology, mathematics, social studies, and language arts.

## **Anatomy and Physiology (SCI309)**

PREREQUISITE: Biology | Offered: Fall or Spring | .5 Science Credit

Anatomy & Physiology is a one semester survey course that covers the structure and function of the human body from the cellular level to organ systems. The organ systems studied are the skin and integumentary system, the skeletal and muscular systems, the nervous system, and the senses, the endocrine system, blood and the cardiovascular system, the lymphatic system and immunity, the respiratory system, the urinary system, the digestive system including nutrition, and the reproductive system. Other topics included in the course are: the body's balance of water; electrolytes, acids, and bases; and an introduction to human growth and development. This course is meant to be an introductory course in Anatomy & Physiology.

## **Astronomy (SCI311)**

PREREQUISITE: Conceptual Physics or Earth Science | Offered: Fall or Spring | .5 Science Credit

A one-semester course devoted to the study of astronomy. Units of study will include: objects that can be observed in the sky with the unaided eye such as the sun, planets, and stars; equipment that is used to further our knowledge of the universe; the relation between the earth and the other objects in the sky; the properties and lives of stars; the origins of our universe and solar system.

## **\*AP Environmental Science (SCI501/502)**

PREREQUISITE: Biology CO-REQUISITE: Chemistry | Offered: Yearlong Course | .5 Science Credit/Semester

Environmental Science is a one-year high school course, equivalent to a one-semester college course stressing scientific principles and analysis. The goal of the course is to provide students with scientific principles, concepts and methodologies to understand the interrelationship of the natural world; to identify and analyze natural and man-made environmental problems; to evaluate the relative risk associated with these problems; and to examine alternative solutions for resolving and preventing them. There are strong lab and field investigations, allowing students to learn about the environment through firsthand observation. Field experiences may be arranged outside of school hours. Completion of the AP exam is an expectation for all AP courses.

## **\*AP Chemistry (SCI505/506)**

PREREQUISITE: Chemistry | Offered: Yearlong Course | .5 Science Credit/Semester

AP Chemistry is an intensive study of matter at the atomic and molecular levels, emphasizing inorganic chemistry. There is a concentration on the mathematical treatment of the principles of college chemistry. The course covers formula writings, types of chemical reactions and stoichiometry, atomic and molecular structure, gases, kinetics, equilibrium, acid-base chemistry, and thermodynamics. Laboratory work is extensive and equivalent to freshman college-level with formal reports. Completion of the AP exam is an expectation for all AP courses.

### **\*AP Biology (SCI507/508)**

PREREQUISITE: Biology CO-REQUISITE: Chemistry | Offered: Yearlong Course | .5 Science Credit/Semester

This course is the equivalent of an introductory college biology course. It is an intensive study emphasizing the molecular biology of the cell, genetics and evolution, organisms and populations. Laboratory activities challenge students' abilities to understand problems, develop and implement experimental designs, manipulate data, and think analytically. Laboratory work is extensive. Completion of the AP exam is an expectation for all AP courses.

### **\*College AP Physics (SCI519)**

PREREQUISITE: Algebra and Geometry CO-REQUISITE: Algebra II | Offered: Fall or Spring | .5 Science Credit

This AP course with associated college credit is the equivalent of an introductory college physics course and includes topics in both classical and modern physics, emphasizing the mathematical treatment of physical events. The course covers topics such as kinematics, forces and Newton, gravity and fields, energy, momentum, rotational momentum, magnetism, simple harmonic motion, and waves. Students interested in pursuing a major in science or engineering in college should take this course in order to be fully prepared for college physics. Lab experience is extensive. Concurrent enrollment in Pre-Calculus is recommended, but not REQUIRED. Completion of the AP exam is an expectation for all AP courses.

### **\*AP Physics I (SCI525/526)**

PREREQUISITE: Algebra and Geometry CO-REQUISITE: Algebra II | Offered: Yearlong Course | .5 Science Credit/Semester

This course is the equivalent of an introductory college physics course and includes topics in both classical and modern physics, emphasizing the mathematical treatment of physical events. The course covers topics such as kinematics, forces and Newton, gravity and fields, energy, momentum, rotational momentum, magnetism, simple harmonic motion, and waves. Students interested in pursuing a major in science or engineering in college should take this course in order to be fully prepared for college physics. Lab experience is extensive. Concurrent enrollment in Pre-Calculus is recommended, but not REQUIRED. Completion of the AP exam is an expectation for all AP courses.

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# Performing Arts

The Des Moines Public Schools music and drama programs are highly acclaimed and offer a comprehensive and extensive variety of classes at all levels. The Performing Arts programs in our district high schools empower students to use their minds creatively and inspire students through diversity in learning. Students who participate in Performing Arts academic areas broaden their life experiences and become equipped with the critical thinking, communication, collaboration, creativity, and problem-solving skills needed in the 21<sup>st</sup> century.

## Curriculum Coordinator

Christian White

[christian.white@dmschools.org](mailto:christian.white@dmschools.org)

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## Band

### Band (BND101/102)

PREREQUISITE: Previous semester of band or audition | Offered: Yearlong Course | .5 Credit/Semester

This course includes concert band, and may include marching band (check with your school). **Marching Band:** The course begins approximately two weeks prior to the start of school with a required summer marching band camp. Marching band involves performances at all home varsity football games and a variety of other contests or parades each fall. **Concert Band:** Auditions for concert band are held in October. Members in the band will study traditional concert band literature, and perform regularly throughout the winter and spring months. Members are encouraged to take private lessons and may be asked to participate in honor bands.

### Wind Ensemble (BND117/118)

PREREQUISITE: Audition/Teacher Placement | Offered: Yearlong Course | .5 Credit/Semester

Wind Ensemble is the most advanced wind and percussion ensemble. Wind Ensemble is a select group that will study highly advanced concert band music.

### Jazz II (BND207/208)

PREREQUISITE: Audition/Teacher Placement CO-REQUISITE: BND101/102 or BND117/118 | Offered: Yearlong Course | .5 Credit/Semester

This course is offered to any student who plays a jazz instrument. Through performances, students will develop an understanding of basic jazz styles and improvisation techniques.

### Jazz I (BND307/308)

PREREQUISITE: Audition/Teacher Placement CO-REQUISITE: BND101/102 or BND117/118 | Offered: Yearlong Course | .5 Credit/Semester

This course is offered to any student who plays a jazz instrument. Through performances, students will develop an understanding of basic jazz styles and improvisation techniques.

## Vocal

### Concert Choir (VOC101/102)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

This course will include a study of vocal techniques and exercises, music theory and terminology, study of the human voice, and the history of choral music through performance of varied choral literature. The ensemble will study and rehearse music to be performed at various concerts throughout the year.

### Treble Choir (VOC111/112)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

This course will include a study of vocal techniques and exercises, music theory and terminology, study of the human voice, and the history of choral music through performance of varied choral literature. The ensemble will study and rehearse music to be performed at various concerts throughout the year.

### Bass Choir (VOC113/114)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

This course will include a study of vocal techniques and exercises, music theory and terminology, study of the human voice, and the history of choral music through performance of varied choral literature. The ensemble will study and rehearse music to be performed at various concerts throughout the year.

### Auditioned Treble Choir (VOC209/210)

PREREQUISITE: Audition/Teacher Placement | Offered: Yearlong Course | .5 Credit/Semester

This choir is designed to develop vocal technique, part-singing, and fundamentals of choral singing through a variety of musical styles. Multiple performances will be expected throughout the year.

### Show Choir (VOC211/212)

PREREQUISITE: Audition/Teacher Placement CO-REQUISITE: VOC101/102, VOC111/112, VOC113/114, VOC209/210 or VOC311/312 | Offered: Yearlong Course | .5 Credit/Semester

This course will include a study of vocal techniques and exercises, music theory and terminology, study of the human voice, and the performance of varied literature, including popular, musical theatre, and jazz styles. The ensemble will study and rehearse music to be performed at various concerts and contests throughout the year.

### Jazz Choir (VOC221/222)

PREREQUISITE: Audition/Teacher Placement CO-REQUISITE: VOC101/102, VOC111/112, VOC113/114, VOC209/210 or VOC311/312 | Offered: Yearlong Course | .5 Credit/Semester

This course will include an advanced study of vocal jazz techniques and exercises, music theory and terminology, study of the human voice, improvisation, and the history of jazz music through performance of varied vocal jazz literature. The ensemble will study and rehearse music to be performed at various concerts and contests throughout the year.

### Gospel Choir (VOC223/224)

PREREQUISITE: Audition/Teacher Placement | Offered: Yearlong Course | .5 Credit/Semester

This course will include a study of international gospel tradition, including traditional United States gospel, modern/urban gospel, contemporary inspirational music, African gospel, and spirituals. Students will study aural skills, gospel technique, improvisation and stylism, and perform at various concerts throughout the year.

## **Chamber Choir (VOC311/312)**

PREREQUISITE: Audition/Teacher Placement | Offered: Yearlong Course | .5 Credit/Semester

This course will include an advanced study of vocal techniques and exercises, music theory and terminology, study of the human voice, and the history of choral music through performance of varied choral literature. The ensemble will study and rehearse music to be performed at various concerts throughout the year.

## **Varsity Show Choir (VOC403/404)**

PREREQUISITE: Audition/Teacher Placement CO-REQUISITE: VOC101/102, VOC111/112, VOC113/114, VOC209/210 or VOC311/312 | Offered: Yearlong Course | .5 Credit/Semester

This course will include an advanced study of vocal techniques and exercises, music theory and terminology, study of the human voice, and the performance of varied literature, including popular, musical theatre, and jazz styles. The ensemble will study and rehearse music to be performed at various concerts and contests throughout the year.

# **Orchestra**

## **Orchestra (ORC101/102)**

PREREQUISITE: Previous semester of Orchestra or audition | Offered: Yearlong Course | .5 Credit/Semester

This course is for all interested string players. This course will include a study of string techniques and exercises, music theory and terminology, and the history of string music through performance of varied orchestra literature. The ensemble will study and rehearse music to be performed at various concerts throughout the year.

## **Chamber Orchestra (ORC301/302)**

PREREQUISITE: Audition/Teacher Placement | Offered: Yearlong Course | .5 Credit/Semester

This is an advanced string course. This course will include an advanced study of string techniques and exercises, music theory and terminology, and the history of string music through performance of varied orchestra literature. The ensemble will study and rehearse music to be performed at various concerts and several community events throughout the year.

# **Music Theory**

## **Music Theory (MUS153)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Students will study traditional music theory, including scales, chords, intervals, transposition, and beginning part-writing.

## **\*AP Music Theory (MUS501/502)**

PREREQUISITE: MUS153 or Instructor Approval CO-REQUISITE: Must be enrolled in an instrumental or vocal music course | Offered: Yearlong Course | .5 Credit/Semester

AP Music Theory course corresponds to one-to-two semesters of typical, introductory college music theory coursework that covers topics such as musicianship, theory, and musical materials and procedures. Musicianship skills, including dictation and listening skills, sight-singing, and harmony, are an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of tonal music that are heard or presented in a score. Development of aural (listening) skills is a primary objective. Performance is also part of the curriculum through the practice of sight-singing. Students learn basic concepts and terminology by listening to and performing a wide variety of music. Notational skills, speed, and fluency with basic materials are emphasized.

## **Drama**

### **Intro Theatre Arts (DRM129/130)**

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

Intro Theatre Arts is an introductory course that will teach students to utilize and develop self-confidence, poise, basic theatre terminology, appreciation of various dramatic forms, appropriate response, awareness of theatre production processes, understanding of theatre literature, knowledge of theatre history, and beginning performance skills.

### **Intro Play Production (DRM131/132)**

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

Intro Play Production is a survey course of technical theatre covering set construction/safety, costumes, make-up, publicity/programs, lights/sound, props, house management, and play reading and analysis.

### **Intermediate Theatre Arts (DRM229/230)**

PREREQUISITE: DRM130 | Offered: Yearlong Course | .5 Credit/Semester

The course provides the opportunity for students to thoroughly investigate the subjects taught in Intro Theatre Arts. Areas of concentration will be theatre history, literature, acting and play production. Performance will be a major component of this course.

### **Intermediate Play Production (DRM231/232)**

PREREQUISITE: DRM132 | Offered: Yearlong Course | .5 Credit/Semester

This course provides students an opportunity to apply the skills learned in Intro Play Production. Students will participate in decision making, construction and crew supervision, and problem solving. Students will learn advanced methods in dealing with props, sets, lights/sound, costumes, make-up, and publicity/programs.

### **Advanced Theatre Arts (DRM329/330)**

PREREQUISITE: DRM230 | Offered: Yearlong Course | .5 Credit/Semester

This course will begin to prepare the more serious theatre student with advanced concepts in performance and production. Also included will be an intro to playwriting, criticism, and auditioning. Students will explore forms of creative expression, performance styles, methods of acting, and artistic styles.

### **Advanced Play Production (DRM331/332)**

PREREQUISITE: DRM232 | Offered: Yearlong Course | .5 Credit/Semester

Advanced Play Production covers exploratory methods of script analysis, design work, and stage management. Students will use basic and advanced design and construction concepts to create a production.

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# Visual Arts

The Des Moines Public Schools offer a comprehensive, hands-on approach to learning and mastering the skills in visual arts. Students who pursue an academic study of the visual arts will deepen their communication skills, define and solve creative problems with insight and technical ability, focus their critical analysis skills, and develop an informed acquaintance with exemplary works of art from a variety of cultures across historical periods and genres. Learning in the visual arts provides opportunities for students to broaden their life experience and become equipped with skills needed and valued in the 21<sup>st</sup> century.

## Curriculum Coordinator

Christian White

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### Intro to Art History (ART105/106)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

In this course, students will develop a basic vocabulary for describing visual art, an understanding of the functions of imagery, and explore the role art has played throughout Western and Non-Western history and contemporary trends. The focus of this course is describing, exploring, and participating in the creative process in order to better understand the role of art in history. This course is recommended for students considering careers in architecture, art education, art history, ceramics, fashion design, interior architecture, interior design, landscape design, or studio art or future enrollment in the AP Art History course

### Intro 2D Art (ART121)

PREREQUISITE: NONE | Offered: Fall or Spring | .5 Credit

This course is an introductory foundational level study of 2D visual art standards and requires no previous art experience. Students will explore drawing, painting, print-making, and other 2D media, techniques, and processes to explore the Elements of Art, Principles of Design, and solve visual arts and creative problems. Students will engage in the creative process through planning, applying, and evaluating while connecting art to wider contexts. This course is recommended for students considering careers requiring artistic skill. This course is a prerequisite for Drawing and Painting art courses.

### Intro 3D Art (ART122)

PREREQUISITE: NONE | Offered: Fall or Spring | .5 Credit

This course is an introductory foundational level study of 3D visual art standards and requires no previous art experience. Students will explore sculpting, ceramics, and other 3D media, techniques, and processes to explore the Elements of Art, Principles of Design, and solve visual arts and creative problems. Students will engage in the creative process through planning, applying, and evaluating while connecting art to wider contexts. This course is recommended for students considering careers requiring artistic skill. This course is a prerequisite for 3D Design art courses.

### Intro to Graphic Design (ART141)

PREREQUISITE: NONE | Offered: Fall or Spring | .5 Credit

This course is an introduction to the principles and elements of graphic design. Students will explore different avenues of visual communication, self-expression, and creative problem-solving through the creation of commercial, interactive, and fine art. Students will engage in the creative process through planning, application, and evaluation of graphic design concepts.

### **Drawing and Painting II (ART201/202)**

PREREQUISITE: Intro 2D Art & 3D Art | Offered: Yearlong Course | .5 Credit/Semester

This course is a further exploration of Elements of Art and Principles of Design through the drawing and painting media such as acrylic, watercolor, oil pastels, and charcoal. Students will engage in the creative process through planning, applying, evaluating, and connecting art to wider contexts. This course is recommended for students considering careers requiring artistic skill. Satisfactory completion of ART101/ART102 is a prerequisite for this and all advanced course work. Art teacher may recommend waive of prerequisite when student portfolio demonstrates readiness for advanced coursework.

### **3D Design II (ART211/212)**

PREREQUISITE: Intro 2D Art & 3D Art | Offered: Yearlong Course | .5 Credit/Semester

This course is a further exploration of the Elements of Art and Principles of Design through three dimensional sculptural media such as clay, wood, metals, fiber, paper, tile, glass, plaster, and mixed media. Students will engage in the creative process through planning, applying, and evaluating. This course is recommended for students considering careers requiring artistic skill. Satisfactory completion of ART101/ART102 is a prerequisite for this and all advanced course work. Art teacher may waive prerequisite when student portfolio demonstrates readiness for advanced coursework.

### **Intro to Photography (ART221/222)**

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

This course is an introductory foundational level study of the Elements of Art and the Principles of Design through the medium of photography and requires no previous art experience. Students develop skills in basic camera operation, photographic processes, procedures, theory, and studio techniques. Students will engage in the creative process through exploring the camera as a tool and evaluating their work and the work of others. This course is recommended for students considering careers in animation, digital media, graphic design, illustration, multi-media, museum, object design, photojournalism, studio art, or visual communications.

### **Advanced Photography (ART225/226)**

PREREQUISITE: Intro to Photography | Offered: Yearlong Course | .5 Credit/Semester

This course is an advanced level study of the Elements of Art and Principles of Design through the medium of photography for students who have mastered the basic photographic principles and process. Students will engage in the creative process and explore the camera as a tool by connecting work to wider contexts, planning, evaluating, and presenting. This course is recommended for students considering careers in animation, digital media, graphic design, illustration, multi-media, object design, photojournalism, studio art, commercial art, or visual communications.

### **Intermediate Art History (ART231/232)**

PREREQUISITE: Intro to Art History | Offered: Yearlong Course | .5 Credit/Semester

In this course, students will develop a deeper vocabulary for describing visual art, an understanding of the functions of imagery, and explore the role art has played throughout Western and Non-Western history and contemporary trends. The focus of this course is describing, exploring, and participating in the creative process in order to better understand the role of art in history. This course is recommended for students considering careers in architecture, art education, art history, ceramics, fashion design, interior architecture, interior design, landscape design, or studio art or future enrollment in the AP Art History course.

### **Intermediate Graphic Design (ART241/242)**

PREREQUISITE: Intro to Graphic Design | Offered: Yearlong Course | .5 Credit/Semester

This course is an exploration into visual communication through graphic design. Students will explore different avenues of visual communication, self-expression, and creative problem-solving through the creation of commercial, interactive, and fine art. Students will engage in the creative process through planning, application, evaluation, and presentation of graphic design concepts.



### **Drawing and Painting III (ART301/302)**

PREREQUISITE: Drawing and Painting II | Offered: Yearlong Course | .5 Credit/Semester

This course is an advanced study of the Elements of Art and Principles of Design through the drawing and painting media. Students will engage in the creative process through planning, applying, evaluating, and connecting art to wider contexts. This course is recommended for students considering careers in architecture, art education, art history, graphic design, illustration, interior design, or studio art.

### **3D Design III (ART311/312)**

PREREQUISITE: 3D Design II | Offered: Yearlong Course | .5 Credit/Semester

This advanced course is a deeper exploration of the Elements of Art and Principles of Design through three dimensional sculptural media such as clay, wood, metals, fiber, paper, tile, glass, plaster, and mixed media. Students will engage in the creative process through planning, applying, evaluating, and connecting work to wider contexts. This course is recommended for students considering careers in architecture, art education, art history, ceramics, fashion design, interior architecture, interior design, landscape design, or studio art.

### **Commercial Photography (ART319/320 and ART421/4213/422/4223) @ Central Campus**

PREREQUISITES: None

ART319 offers DMACC ART 184, Principles of Photography, 3 credits

ART320 offers DMACC ART 186, Principles Digital Photograph, 3 credits

In the Commercial Photography program, students obtain skills in film processing, darkroom procedures, studio shooting techniques, camera techniques, photographic history, presentation skills and digital imaging. Portfolio development enables students to apply for employment, scholarships and college admission. Students will publicly display work at the Central Campus Student Art Exhibit and other exhibitions. Commercial Photography is a two-year program at Central Campus.

### **Advanced Graphic Communications (ART361/3622, 461/4612/462/4622, 469/470) @ Central Campus**

PREREQUISITES: Two courses in any of the following areas highly recommended: Art, Graphic Design, Computer Applications, Journalism, and Technology Education.

ART361 offers DMACC GRD 403, Communication Design, 2 credits

ART3622 offers DMACC GRD 459, Illustrator, 3 credits

ART461 offers DMACC GRD 301, Intro to Desktop Publishing, 3 credits

ART4612 offers DMACC GRD 463, Photoshop, 3 credits

ART462 offers DMACC GRD 405, Typography I, 3 credits

Advanced Graphic Communication provides education, training and real-world graphic design and print production experiences. Through close relationships with industry experts, the program's curriculum and industry experiences reflect the technological expectations of the graphic communication industry. First-year students complete a wide variety of hands-on projects in design, pre-press, print production, and bindery. Participation in frequent industry tours allows students to increase the range and depth of their understanding. All students enrolled in the second year of the program are expected to complete a variety of increasingly complex project work. They also are expected to participate in the design, layout and production of various "live jobs." Both the "live jobs" and the projects are intended to further develop their skills and overall understanding of the graphic communication industry. Second-year students may choose the privilege of participating in job-shadow and internship experiences. Job shadowing and internships provide a stronger foundation and background for the advanced student desiring to enter the industry. For students planning to continue their postsecondary education, these foundational experiences provide the opportunity to earn additional college credit. Advanced Graphic Communications is a three-year program at Central Campus.

### **Drawing and Painting IV (ART401/402)**

PREREQUISITE: Drawing and Painting III | Offered: Yearlong Course | .5 Credit/Semester

This advanced studio course is a study of personal expression using the Elements and Principles through the drawing and painting media. Students will engage in the creative process through planning, applying, evaluating, connecting and presenting art concepts. This course is recommended for students considering careers in architecture, art education, art history, graphic design, illustration, interior design, or studio art.

### **3D Design IV (ART411/412)**

PREREQUISITE: 3D Design III | Offered: Yearlong Course | .5 Credit/Semester

This advanced course is a deeper exploration of personal expression with the Elements of Art and Principles of Design through three dimensional sculptural media such as clay, wood, metals, fiber, paper, tile, glass, plaster, and mixed media. Students will engage in the creative process through planning, applying, evaluating, presenting, and connecting work to wider contexts. This course is recommended for students considering careers in architecture, art education, art history, ceramics, fashion design, interior architecture, interior design, landscape design, or studio art.

### **\*AP Art: 2D Studio (ART501/502)**

PREREQUISITE: Drawing and Painting II | Offered: Yearlong Course | .5 Credit/Semester

This weighted, advanced level course emphasizes making art as an ongoing process that involves the students in critical decision making; helps students develop technical skills and familiarizes them with the functions of the visual elements. The course encourages systematic, creative, investigation of formal and conceptual issues. Completion of the AP exam is an expectation for all AP courses.

### **\*AP Art: Art History (ART503/504)**

PREREQUISITE: Intermediate Art History | Offered: Yearlong Course | .5 Credit/Semester

In this course, students examine major forms of artistic expression from the ancient world to the present and from a variety of cultures. They learn view and analyze works of art within their historical context, and to articulate what they see or experience in a meaningful way. A meaningful way to experience works of art is learning to frame an understanding that relates how and why works of art communicate visual meaning. Completion of the AP exam is an expectation for all AP courses.

### **\*AP Art: 3D Studio (ART507/508)**

PREREQUISITE: 3D Design II | Offered: Yearlong Course | .5 Credit/Semester

This weighted, advanced level course emphasizes making art as an ongoing process that involves the students in critical decision making; helps students develop technical skills and familiarizes them with the functions of the visual elements. The course encourages systematic, creative, investigation of formal and conceptual issues. Completion of the AP exam is an expectation for all AP courses.

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# Physical Education & Health Science

Physical Education is an important and unique part of the daily instructional program. Not only does it contribute to the overall goals of education, but it also contributes to the development and maintenance of fitness, motor skills, social skills, health, and brain development.

The Des Moines Public Schools provides a comprehensive curriculum that allows students choice in a program that teaches skills, knowledge and behaviors to promote lifelong fitness. These are necessary to function at an adequate level of competence enabling each student to be an active, physically and mentally fit individual throughout life.

Contract PE Eligibility and PE Exemption Guidance for counselors can be found at [pe.dmschools.org/high-school](http://pe.dmschools.org/high-school).

## Curriculum Coordinator

Christian White

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## Team Games/Act & Sports (PHY105)

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Students will learn a variety of rules, skills, fundamentals and strategies in multiple team activities. Safety and sportsmanship will be emphasized. Activities will include by not limited to: Basketball, Soccer, Volleyball, Floor Hockey, Lacrosse, Ultimate Games, Non-traditional Games, Flag Football, Diamond Sports. District mandated fitness assessments will be administered in pre and post test form.

## Total Body Fitness & Cond (PHY109)

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

This beginning course is designed to introduce proper lifting techniques, spotting methods, weight room safety, and workout routines. Activities will include but not limited to: a multitude of lifts utilizing free weights, machine weights, as well as an emphases on conditioning and fitness. District mandated fitness assessments will be administered in pre and post test form.

## Fitness Walking (PHY115)

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

This course is designed for students to improve cardiovascular fitness by walking. This course is completely activity based and suggested for those who are self-motivated. Various walking activities and assessments will be used throughout the class. Students will be expected to walk 2-3 miles per class period. This will allow students' the opportunity to participate in individual fitness activities that can be continued throughout one's lifetime. Activities include by not limited to: walking, heart rate monitoring, circuit training, treadmills, time laps/stairs, time mile, pedometers/activity monitors, walking bands. District mandated fitness assessments will be administered in pre and post test form.

## Unified PE (PHY117)

PREREQUISITE: 1 year prior Physical Education courses | Offered: Fall or Spring | .5 credit

This course combines students of all abilities to participate in developmentally appropriate activities including lifetime activities, physical fitness, and sport. Students will work together to increase competence and confidence in a variety of physical activities. Unified Peer PE is planned and implemented to provide each student access to physical education grade-level outcomes and standards while making necessary accommodations. Through ongoing leadership opportunities, members of this course will be empowered to help create a more inclusive and accepting school environment for all students.

### **Innovative Fitness (PHY131)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Whether you are looking to improve your overall physique, gain strength, and flexibility, or live a healthier lifestyle, Innovative Fitness Class will aid you in your goals and expectations. This program provides opportunities for introductions to fitness skills and knowledge to help develop personal workout plans. Students must be willing to workout at an intense cardio level, break a sweat, and expect a body transformation. Activities include but are not limited to: Yoga, fitness technology, aerobics, bosu-trainers, CrossFit, creative dance, fitness assessment, jump roping, kick boxing, medicine balls, and weight resistance.

### **ROTC Fitness (PHY137) @ Central Campus**

COREQUISITE: MIS169/170 or MIS171/172 | Offered: Fall or Spring | .125 credit

Designed to prepare Marine JROTC students to excel in the Physical Fitness Test. Other exercises are included to enhance the components of fitness supported by the principles of exercise. This class is only offered at Central Campus. This course will only be offered for 0.125 PE credit/semester per Iowa code.

### **Psychology of Health & Fit (PHY227)**

PREREQUISITE: 1 year prior Physical Education courses | Offered: Fall or Spring | .5 credit

Within this course we will be providing an overview to help students develop a relationship with exercise and lifelong wellness. Psychology of Health and wellness course will introduce the field of psychology and the relationship between health and overall wellness. This course will cover a wide range of topics and skills that will improve an overall healthy lifestyle. Activities can include but not limited to: mental toughness, goal setting, motivation, injury prevention, training principles, schedules, and stress management.

### **Aquatics (PHY241)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Students will gain an awareness of the importance of water safety training and to provide general information on being safe in, on, and around water. Students will work on their coordination and refinement of strokes. Students will participate, assess, and improve levels of flexibility, cardiovascular fitness, muscular strength, endurance, and body composition. CPR has been mandated by the state and may be included in the curriculum. Activities can include but not limited to: pool rules, safety/expectations, water injuries, deck rescues/in water rescues, introduction to water skills, fundamental aquatic skills and stroke techniques.

### **Sports Officiating and Leadership (PHY327/328)**

PREREQUISITE: 1 year prior Physical Education courses | Offered: Fall or Spring | .5 credit

In Sports Officiating and Leadership, students become certified officials through the IHSAA and IHSGAU in a variety of sports. Students will use film study to understand theories and movements of several sports to better understand rules and positioning. Along the way, students will cooperate with other DMPS programs to gain live on-site training and experience in live game situations. After students earn certification with the state of Iowa, they can be placed in jobs within the district to start earning money as a fully certified official. Throughout the class, students will gain confidence and job experience within a field in high demand that they can do for the rest of their lives. PHY327 fall semester includes fall sports; PHY328 spring semester includes spring sports. Students can take either or both semesters.

### **Contract PE (PHY901) counselor only**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Contract PE is only for those students who are carrying a full schedule of required academic classes in order to meet minimum graduation requirements. Please see school counselor and PE Curriculum Coordinator for further details, qualifications, and acceptable athletic programs in which the student may participate. Students will log physical activity and utilize the goal setting feature through the online database daily fit log, to motivate and set challenging and realistic goals.

**PE Exemption (NC) (PHY905/906) counselor only**

This code is used for students who have been excused from Physical Education for religious or medical reasons or criteria under SF 391. The PE Exemption request form can be found at [pe.dmschools.org/high-school](http://pe.dmschools.org/high-school). Students should only be enrolled in PE Exemption (NC) if their request has been approved and sent to the counselor.

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## World Languages

Des Moines Public Schools provides students with opportunities to develop and maintain communicative and cultural proficiencies in a variety of world languages. Spanish courses are offered at all high schools and middle schools. In an effort to promote language and literacy development, DMPS also offers Heritage Spanish language courses. The following language courses are available to all high school students at Central Academy: Arabic, Heritage Arabic, Chinese, French, German, Italian, Japanese, and dual credit Advanced Spanish, Advanced Heritage Spanish, and Medical Spanish Interpretation.

The district's world language goals include:

- Increasing overall student academic achievement through critical thinking skills and supports of essential literacy skills.
- Ensuring all students have access to world language acquisition courses for community connection and college preparation.
- Offering curriculum that reflects our students and community and follows research-supported best practices.
- Increasing students' communication abilities within and beyond the classroom with functional language skills and a desire to engage with our community.

DMPS World Language courses are available to all students. All DMPS curricula in World Languages is based on the growth of language skills and grounded in national standards. Students may apply for the Seal of Biliteracy in any language, even if DMPS does not offer a course.

### Curriculum Coordinator & Seal of Biliteracy Coordinator

Sam Finneseth

[samantha.finneseth@dmschools.org](mailto:samantha.finneseth@dmschools.org)

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### Spanish I (WL111/112)

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

Spanish I is for learners in high school who are new to Spanish language study. First year students engage daily with written and spoken Spanish language to build communicative capacity. Students experience the language to learn about worldwide Spanish culture, current events, and build their productive capacity. Year one students start in the Novice range and focus on being able to express themselves on very familiar topics using a variety of words, phrases, simple sentences, and practiced and memorized questions. At the end of semester 2, students will likely exit the Novice Mid range and be able to communicate confidently in short phases on practiced and familiar topics. It is common that students understand more than they can produce. This course is not appropriate placement for heritage or native speakers of Spanish. Students should take Spanish II with successful completion of Spanish I.

### Spanish II (WL211/212)

PREREQUISITE: WLI 12 or Teacher Placement | Offered: Yearlong Course | .5 Credit/Semester

Spanish 2 is for continuing Spanish learners who successfully completed Spanish I or three successful semesters in middle school. Second year students continue engage daily with written and spoken Spanish language to expand their communicative capacities. Students learn about worldwide Spanish culture, historical events, and current events in the target language. At the end of semester two, students will be able to communicate more effectively in short exchanges by asking questions, understanding answers, and able to navigate authentic texts for big ideas. They will also be able to present simplified concepts to an authentic audience. It is common that students understand more than they can produce. This course is not designed to meet the needs of heritage or native speakers. Students should take Spanish III next, or those interested in the medical field are able to take Spanish Medical Interpretation.

### **Heritage Spanish Foundations (WL213/214)**

PREREQUISITE: None | Offered: Yearlong Course | .5 Credit/Semester

Heritage Spanish Foundations is a Spanish language course for bilingual (English/Spanish), Latinx or Hispanic students. Students develop their full linguistic abilities as a bilingual and bicultural person. Latinx students who are receptive to native speakers of Spanish but may not be able to produce are encouraged to take this course. Students will listen, read, speak and write in Spanish daily, starting with essential skills for reading and writing. Content follows research-supported curriculum specifically for Latinx youth and focuses on self-identity and cultural awareness. This course is not intended to fit the needs of Spanish-dominant students who can read, write, listen, and speak near grade-level and requires an English proficiency level near grade level. This course is not appropriate for non-native or non-heritage Spanish speakers; a 300 level Spanish course is recommended for non-heritage students with advanced Spanish proficiency. This course is repeatable with approval from the teacher and curriculum coordinator. Students should move on to AP Spanish IV, Heritage Spanish Language Arts, or into a 300 level Spanish elective course.

### **Latinos in Action (WL291/292)**

PREREQUISITE: Application and Teacher Placement | Offered: Yearlong Course | .5 Credit/Semester

Latinos in Action is a course dedicated to empowering Latino youth to lead and strengthen their communities in partnership with the national Latinos in Action organization. Interested students need to apply to be accepted into this course due to the organization's course enrollment. Latinos in Action follows the model set by the national organization and addresses leadership development, college and career readiness, and provides tutoring to elementary students weekly. Any Latino/Latina/Latine student can apply to be part of Latinos in Action, including: Spanish-only speaking students, English-only speaking students, and bilingual students. This course hopes to develop student leaders over multiple years as they work in committees to accomplish school goals. This course is repeatable with permission of the instructor and curriculum coordinator. Students are encouraged to also enroll in a Spanish language development course.

### **Spanish III (WL311/312)**

PREREQUISITE: WL212 or Teacher Placement | Offered: Yearlong Course | .5 Credit/Semester

Third year Spanish students continue to improve their Spanish language skills in reading, writing, listening and speaking. Students will help direct the course of study. Topics are not limited to: current world events, American Chicano movement, Afrolatino history, and cultural expression. Students will use authentic texts, materials written for language learners, and be expected to speak and write in Spanish during class. Students will work to grow their language proficiency in the Intermediate Low and approach Intermediate Mid levels. Students successfully completing this course are encouraged to apply for the Seal of Biliteracy and take the proficiency exam during class. Students should anticipate taking AP Spanish IV next or those interested in the medical field to take Medical Spanish Interpretation. Any Latino/Latina/Latine students may also take AP Spanish or one of the heritage courses at Central Academy.

### **Medical Spanish Interpretation S1 (WL391) / \*Medical Spanish Interpretation S2 (WL392)**

PREREQUISITE: WL212 or higher, CNA student | Offered: Yearlong Course | .5 Credit/Semester

WL392 is projected to offer Grand View credit. Course number TBD

Medical Spanish Interpretation is a course offered at Central Academy and designed to meet the growing demand for multilingual medical professionals and satisfy any world language requirements for college entrance and graduation. Any student enrolled in the CNA program is invited to join this class during their second year of CNA classes. Students not enrolled in the CNA program should successfully complete Spanish II prior to enrollment. This course will focus on learning key conversational skills to assess immediate medical needs, question asking and response, and necessary vocabulary. Students should anticipate a vocabulary-heavy semester 1 and a focus on oral production in semester 2. Students can anticipate role-playing, hands-on activities, and developing cultural awareness about medical practices from around the Spanish-speaking world. Semester 2 of this course is dual credit at no charge to the student and will impact college transcripts. Spanish speaking students need to complete one Heritage Spanish course prior to taking this class; no minimum English proficiency requirement for native Spanish speakers. Students wanting a fourth year of Spanish can take Spanish III after this course or AP Spanish IV with teacher recommendation. Heritage Spanish students can take any additional Heritage Spanish course or AP IV after this class.

## **Heritage Spanish Language Arts (WL417/418)**

PREREQUISITE: Heritage Spanish Foundations or Teacher Placement | Offered: Yearlong Course | .5 Credit/Semester

Heritage Spanish Language Arts is a Spanish language course to serve Latinx and Hispanic students with Spanish as a dominant language and previous schooling where courses were taught in Spanish, or with successful completion of Heritage Spanish Foundations. Students will listen, read, speak and write in Spanish daily. Content follows the structure of a high school English Language Arts course but focuses on the voices of Latinx authors, perspectives, and stories. This course is repeatable with teacher and coordinator approval. Students successfully completing this course should take AP Spanish IV or any of the dual credit options at Central Academy (Voces Latinas, Advanced Spanish grammar, Medical Spanish Interpretation).

## **\*AP Spanish IV (WL515/516)**

PREREQUISITE: WL312 or WL418 | Offered: Yearlong Course | .5 Credit/Semester

This AP Spanish IV class is the Language and Culture course aligned with the College Board AP exam. It focuses on academic language skills and presents an in-depth review of grammatical structures. Communicative skills are expanded to include analysis, synthesis, and elaborated opinions in Spanish. Appreciation of, awareness of, and respect for Spanish-speaking cultures are expanded through multiple genres of texts. Students successfully completing this course should take College Spanish V at Central Academy. Additionally, Latino/Latina/Latine students should consider taking Advanced Spanish Grammar and Voces Latinas as follow-up courses. Students interested in the medical field can also take Medical Spanish Interpretation. *Completion of the AP exam is an expectation for all AP courses. An English proficient student who earns a score of 3 or higher on the AP Spanish Language and Culture exam qualifies for the Seal of Bilingualism.*

## **\*College Spanish V (WL571/572)**

WL571 offers DMACC FLS 241, Intermediate Spanish I, 4 credits

WL572 offers DMACC FLS 242, Intermediate Spanish II, 4 credits

PREREQUISITE: WL418 or WL515 | Offered: Yearlong Course | .5 Credit/Semester

This course is offered at Central Academy and available to all students that complete AP Spanish IV or Heritage Spanish Language Arts. This course is dual credit with DMACC's FLS241 and FLS242; the grade will impact college transcripts. This course is offered at no charge to students. Throughout the course, students focus on increasing oral production of Spanish in multiple tenses and with fluid speech patterns. Students will read, write, listen, and speak Spanish every class period. Students can anticipate 90% of class being taught in Spanish and might need to complete work outside of class due to the nature of this college course. This course is appropriate for heritage Spanish students and any student successfully completing AP Spanish IV at the home high school. Native Spanish speakers need to have one year of Heritage Spanish courses completed prior to enrollment; no minimum English proficiency is required for this course. This course is not repeatable. Heritage or native Spanish speakers can anticipate taking Advanced Spanish Grammar and Voces Latinas as the next course. Non-native speakers can enroll in Medical Spanish Interpretation.



## World Language Courses Offered at Central Academy

The following World Language courses are offered at Central Academy and open to all students. Heritage speakers of the following languages are encouraged to enroll. Please, talk to the course instructor for proper placement.

For complete information about Central Academy programming and courses, please see the dedicated section in this document or visit <http://ca.dmschools.org/>

<b>World Languages: Arabic</b>	WL181/182	Arabic I S1/S2	<b>World Languages: Italian</b>	WL151	Italian I S1
	WL281/282	Arabic II S1/S2		WL152	*Italian I S2 DMACC FLI 141, Elementary Italian I, 4 credits
	WL381/382	Arabic III S1/S2		WL251	Italian II S1
	WL481/482	Arabic IV S1/S2		WL252	*Italian II S2 DMACC FLI 142, Elementary Italian II, 4 credits
<b>World Languages: Chinese</b>	WL131/132	Chinese I S1/S2	WL351	Italian III S1	
	WL231/232	Chinese II S1/S2	WL352	*Italian III S2 DMACC FLI 241, Intermediate Italian I, 4 credits	
	WL331/332	Chinese III S1/S2	WL557	*AP Italian IV S1	
	WL531/532	*AP Chinese IV S1/S2	WL558	*AP Italian IV S2 DMACC FLI 242, Intermediate Italian II, 4 credits	
<b>World Languages: French</b>	WL103	French I S1	<b>World Languages: Japanese</b>	WL161	Japanese I S1
	WL104	*French I S2 DMACC FLF 151, Elementary French I, 5 credits		WL162	*Japanese I S2 DMACC FLJ 141, Elementary Japanese I, 4 credits
	WL203	French II S1		WL261	Japanese II S1
	WL204	*French II S2 DMACC FLF 152, Elementary French II, 5 credits		WL262	*Japanese II S2 DMACC FLJ 142, Elementary Japanese II, 4 credits
	WL303	French III S1		WL361	Japanese III S1
	WL304	*French III S2 DMACC FLF 241, Intermediate French I, 4 credits		WL362	*Japanese III S2 DMACC FLJ 241, Intermediate Japanese I, 4 credits
	WL503	*AP French IV S1		WL545	*AP Japanese IV S1
	WL504	*AP French IV S2 DMACC FLF 242, Intermediate French II, 4 credits		WL546	*AP Japanese IV S2 DMACC FLJ 242, Intermediate Japanese II, 4 credits
<b>World Languages: German</b>	WL141	German I S1	<b>World Languages: Spanish</b>	WL391	Medical Span Interpretations
	WL142	German I S2		WL392	Medical Span Interpretations Grand View TBD
	WL241	German II S1		WL515	*AP Spanish IV S1
	WL242	German II S2		WL516	*AP Spanish IV S2
	WL341	German III S1		WL571	*College Spanish V DMACC FLS 241, Intermediate Spanish I, 4 credits
	WL342	German III S2		WL572	*College Spanish V DMACC FL2 242, Intermediate Spanish II, 4 credits
	WL547	*AP German IV S1			
	WL548	*AP German IV S2			

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## Career & Technology Education

Through our career and technical education programs, Des Moines Public Schools equips students with the knowledge and skills necessary for college, career, and life. Career pathways include a focus on academic; technical, job-specific; and employability skills; and work-based learning components. Students develop these skills through rigorous instruction and authentic practice, that allows them to experience real-world application of the learning.

In addition, Des Moines is home to the nationally renowned Career & Technical Institute at Central Campus, providing students with specialized courses that may allow them to earn college-level credit and/or industry certifications. For courses and programming housed at Central Campus, students can register with their school counselor or by following the process listed [on the Central Campus enrollment information page](#). Career & Technical Education courses delivered at home high schools have no admissions requirements beyond the prerequisites listed with the course description.

### Curriculum Coordinator

Jean Bahls  
Jean.bahls@dmschools.org

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### Availability and Notification (281 IAC 22.32(2))

School districts shall make descriptions of PLTW courses available to students through a course registration handbook. The handbook shall identify which courses, if successfully completed, generate college credit under the program. Information about available PLTW shall be provided to every junior high school student or middle school student prior to development of a core curriculum plan pursuant to Iowa Code 279.61.

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### Career & Technical Pathways:

- Architecture, Construction & Design Engineering, page 43
- Arts, Communications, Information Solutions/Multi Media, page 45
- Business / Technology, page 47
- Construction Skilled Trades, page 51
- Education and Leadership, page 55
- Environmental & Agri-Sciences, page 56
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- Health Sciences, page 61
- Transportation Academy, page 62
- Work Based Learning, page 63
- Aviation Technology Academy, page 64

## Architecture, Construction & Design Engineering

### Intro to Computer Aided Design (CAD): Manufacturing & Engineering (TEC203)

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Students will be introduced to the universal language of the mechanical design and development industry. Students will apply basic skills such as measurement and problem solving in the areas of free hand sketching, geometric construction, and creating technical dimensioned drawings. Students will use computer 3D modeling software and 3D printer to create their designs. This course is a building block for students who may be enrolling in other Tech Ed courses such as the Project Lead the Way courses or programs at Central Campus.

### Intro to Computer Aided Design (CAD): Architecture & Construction (TEC205)

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Students will be introduced to the universal language of the Construction Industry. Students will obtain knowledge and skills relating to the various fields of engineering including: construction, mechanical, industrial, structural, civil, and fields of residential and commercial architecture. Students will use a 3D modeling program such as Chief Architect or Revit to produce their architectural designs. Students will find this course helpful if they choose to continue in the CAD program at Central Campus and/or if they choose to continue their education in the fields of Architecture, Construction or Engineering.

### PLTW Computer Int Mnfg(CIM) (TEC363) and \*PLTW Computer Int Mnfg(CIM) (TEC364) @ Central Campus

Recommended prior courses: Intro to Engineering Design, Principles of Engineering, or Introduction to Computer Aided Design (Engineering/Manufacturing or Architecture/Construction) | Yearlong Course | Grades: 11-12

TEC364 offers DMACC EGT 450, PLTW-Computer Integrated Manuf, 3 credits

Computer Integrated Manufacturing (CIM) is one of the specialization courses in the PLTW Engineering program. The course deepens the skills and knowledge of an engineering student within the context of efficiently creating the products all around us. Students build upon their Computer Aided Design (CAD) experience through the use of Computer Aided Manufacturing (CAM) software. CAM transforms a digital design into a program that a Computer Numerical Controlled (CNC) mill uses to transform a block of raw material into a product designed by a student. Students learn and apply concepts related to integrating robotic systems such as Automated Guided Vehicles (AGV) and robotic arms into manufacturing systems. Industry leading software packages learned and used include Autodesk products: Inventor CAM, Fusion. Software certified user certifications are available.

### \*PLTW Introduction to Engineering Design (IED) (TEC501/502)

COREQUISITE: Algebra I or higher, meets / exceeds proficiency in previous math course or teacher's approval.

Offered: Yearlong Course | .5 Credit/Semester

DMACC EGT 400, PLTW Intro to Engr Design, 3 credits

Introduction to Engineering Design (IED) is a high school engineering course in the PLTW Engineering Program. In IED, students explore engineering tools and apply a common approach to the solution of engineering problems, an engineering design process. Utilizing the activity-project-problem-based (APB) teaching and learning pedagogy, students progress from completing structured activities to solving open-ended projects and problems that require them to plan, document, communicate, and develop other professional skills. Through both individual and collaborative team activities, projects, and problems, students apply systems thinking and consider various aspects of engineering design including material selection, human-centered design, manufacturability, assemblability and sustainability. Students develop skills in technical representation and documentation, especially through 3D computer modeling using a Computer Aided Design (CAD) application. As part of the design process, students produce precise 3D-printed engineering prototypes using an additive manufacturing process. Student-developed testing protocols drive decision-making and iterative design improvements. Students apply computational methods to inform design and problem solutions in IED by developing algorithms, performing statistical analyses, and developing mathematical models. Students build competency in professional engineering practices including project management, peer review, and environmental impact analysis as part of a collaborative design team. Ethical issues related to professional practice and product development are also presented.

### **\*PLTW Principles of Engineering (POE) (TEC503/504)**

Prerequisite: Typical progression is TEC501/502 (Intro to Engineering Design) is taken first: Grade Level or Higher Math Course  
Offered: Yearlong Course | .5 Credit/Semester

DMACC EGT 410, PLTW Principles of Engineering, 3 credits

Principles of Engineering (POE) is a foundational course of the high school engineering pathway. This survey course exposes students to some of the major concepts they will encounter in a postsecondary engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and kinematics. The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology. Students can develop skills and understanding of course concepts through activity-, project-, and problem-based (APB) learning. By solving rigorous and relevant design problems using engineering and science concepts within a collaborative learning environment, APB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem-solving skills. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. It also allows students to develop strategies to enable and direct their own learning.

### **Intro to Robotics/Electronics (EGR218) @ Central Campus, Engineering Academy**

Grades: 9-12 | Offered: Fall or Spring | .5 credit

Intro to Robotics is a course that introduces eager students to the world of robotics. Students will work with multiple robotic platforms and learn the C++ programming language. In addition to programming, students will assemble multiple circuits to enable their robot to navigate their world through the use of touch sensors, infrared light sensors, and ultrasound sensors. Students apply this knowledge to project-driven course work, including the operation and programming of robotic and automation systems. This course is designed for students interested in STEM. Although not a prerequisite, this class will greatly prepare the student for the Digital Electronics & Robotics class.

### **\*Computer Aided Design (CAD) Technology (EGR327/EGR3272/EGR328) and CAD Tech HS S2 (EGR3282) @ Central Campus**

Recommended prior courses: Introduction to Computer Aided Design (Engineering/Manufacturing or Architecture/Construction) or Mechanical/architectural drafting/design recommended | Yearlong Course | Grades: 10-12

EGR327 offers DMACC CAD 119, Intro Computer-Aided Drafting, 3 credits

EGR3272 offers DMACC CAD 125, Intermediate CADD-Mechanical, 3 credits

EGR328 offers DMACC CAD 126, Intermed CADD-Architectural, 3 credits

This program provides occupational and technical skills for job entry in manufacturing and construction or college entrance in the fields of engineering, design, and architecture. You will be introduced to principles and practices, engineering/construction/manufacturing standards, and the use of references and technical information. In this program, students design, document, and build their activities using industry leading software and equipment. Participation in a student organization is encouraged and industry software certifications are available.

The Computer Aided Design Technology program is a two or four semester career area that provides students with the occupational and technical skills for job entry in manufacturing and construction or college entrance in the fields of engineering, design, and architecture.

The engineering/manufacturing curriculum of this course emphasizes principles and practices, engineering standards and the use of references and technical information for production of manufactured goods. Industry based 2D and 3D computer aided design skills will be taught, as well as introduction to computer aided machining (CAM) and computer aided coordinate measuring (CMM). Rapid prototyping will be integrated with the use of multiple types of 3D printers and computer numerically controlled (CNC) equipment.

The architectural curriculum of this course emphasizes design studies and technical information, and the production of construction drawings. Interior design, landscape design and the development and study of energy efficient housing is incorporated in the curriculum to prepare students for changes in the housing industry. 2D and 3D computer aided design skills in architecture and construction industries are practiced and critiqued by professionals. Model building is used to improve visualization skills.

Industry leading software packages learned and used include Autodesk products: AutoCAD, Inventor, Revit; Dassault Systems Solidworks, and CNC Software Inc. Mastercam. Software certified user certifications are available.

## **PLTW Digital Electronics HS (EGR505) @ Central Campus, Engineering**

### **\*PLTW Digital Electronics (EGR506)**

CO-REQUISITE: Grade level Math course | Offered: Yearlong Course | .5 Credit/Semester

Prerequisites: Intro to Robotics

EGR506 offers DMACC EGT 420, PLTW-Digital Electronics, 3 credits

Digital Electronics is the foundation of all modern electronic devices such as cellular phones, MP3 players, laptop computers, digital cameras and high-definition televisions. The major focus of the course is the process of combinational and sequential logic design, teamwork, communication methods, engineering standards and technical documentation.

## **College Civil Engineering & Architecture (CEA) (EGR507/5082) @ Central Campus**

### **\*College Civil Engineering & Architecture (EGR508)**

Recommended prior courses: Intro to Engineering Design, Principles of Engineering, or Introduction to Computer Aided Design (Engineering/Manufacturing or Architecture/Construction) | Yearlong Course | Grades: 11-12

EGR508 offers DMACC EGT 460, PLTW-Civil Engr/Architecture, 3 credits

Civil Engineering and Architecture emphasizes design studies and technical information, and the production of construction drawings. Interior design, landscape design and the development and study of energy efficient housing is incorporated in the curriculum to prepare students for changes in the housing industry. 2D and 3D computer aided design skills in architecture and construction industries are practiced and critiqued by professionals and model building is used to improve visualization skills. Industry leading software packages learned and used include Autodesk products: AutoCAD, Inventor, Revit; Dassault Systems Solidworks, and CNC Software Inc. Mastercam. Software certified user certifications are available.

## **PLTW: Engineering Capstone (EGR523/524) @ Central Campus**

Prerequisites: POE or IED recommended | Yearlong Course | .5 Credit/Semester

The curriculum of the Engineering Design and Development course emphasizes principles and practices, engineering standards and the use of references and technical information for production of manufactured goods. Industry based 2D and 3D computer aided design skills are taught, as well as introduction to computer aided machining (CAM) and computer aided coordinate measuring (CMM). Rapid prototyping is integrated with the use of multiple types of 3D printers and computer numerically controlled (CNC) equipment. Industry leading software packages learned and used include Autodesk products: AutoCAD, Inventor, Revit; Dassault Systems Solidworks, and CNC Software Inc. Mastercam.

## **Arts, Communications, Information Solutions/Multi Media**

### **Graphic Design Fundamentals I (TEC223)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Graphic Design Fundamentals is the exchange of information in visual form. Students will use Adobe Illustrator, InDesign and Photoshop to generate designs. The students will use high tech equipment such as laser printers, digital printing presses, wide format printers/cutters and laser engravers and sublimation printers to output their designs. This is a project-based class. Some reading and written work is required. Students will learn the safe use of the basic tools and equipment used in this course. Projects could include a button, a notepad and calendar printed on a digital printing press, a coaster or key chain using the sublimation printer and a laser engraved key chain. This course is beneficial to students who will be enrolling in other advanced technology courses in high school or advanced technology courses at Central Campus.

## **Graphic Design Technology 2 (TEC225)**

PREREQUISITE: Graphic Design Fundamentals I | Offered: Fall or Spring | .5 credit

Graphic Design Technology will be an extension of the Graphic Design Fundamentals class. Students will use Adobe Illustrator, InDesign and Photoshop to generate designs. Projects could include a magazine cover, laser engraved plaque, a large banner, heat transfer T-shirt, business cards and letter head, and a tri-fold brochure. This course is beneficial to students who will be enrolling in other advanced technology courses in high school or advanced technology courses at Central Campus.

## **Adv Graphic Arts Tech SI (TEC307)**

PREREQUISITE: Graphic Design Technology 2 | Offered: Fall or Spring | .5 credit

The student's knowledge and skill base will continue to grow in this advanced course, as the students will develop their own multi-color projects as designed by both the student and the teacher.

## **Commercial Photography is a 2-year program at Central Campus' Information Technology & Arts Academy**

PREREQUISITES: None

### **Year 1 = \*Commercial Photography (ART319/320)**

ART319 offers DMACC ART 184, Principles of Photography, 3 credits

ART320 offers DMACC ART 186, Principles Digital Photograph, 3 credits

### **Year 2 = \*Commercial Photography II (ART421/422) and Commercial Photography II HS (ART4213/4223)**

ART421 offers DMACC ART 292, Studio Photography, 3 credits

ART422 offers DMACC ART 225, Photoshop for Photography, 3 credits

In the Commercial Photography program, students obtain skills in film processing, darkroom procedures, studio shooting techniques, camera techniques, photographic history, presentation skills and digital imaging. Portfolio development enables students to apply for employment, scholarships and college admission. Students will publicly display work at the Central Campus Student Art Exhibit and other exhibitions.

## **Advanced Graphic Communications is a 3-year program at Central Campus**

Prerequisites: Two courses in any of the following areas highly recommended: Art, Graphic Design, Computer Applications, Journalism, and Technology Education.

### **Year 1 = \*Advanced Graphic Communications (ART361/3622)**

ART361 offers DMACC GRD 403, Communication Design, 2 credits

ART3622 offers DMACC GRD 459, Illustrator, 3 credits

### **Year 2 = \*Adv Graphic Comm II (ART461/4612/462) and Adv Graphic Comm II HS (ART4622)**

ART461 offers DMACC GRD 301, Illustrator, 3 credits

ART4612 offers DMACC GRD463, Photoshop, 3 credits

ART462 offers DMACC GRD 405, Illustrator, 3 credits

### **Year 3 = Adv Graphic Comm III HS (ART469/470)**

Advanced Graphic Communication provides education, training and real-world graphic design and print production experiences. Through close relationships with industry experts, the program's curriculum and industry experiences reflect the technological expectations of the graphic communication industry. First-year students complete a wide variety of hands-on projects in design, pre-press, print production, and bindery. Participation in frequent industry tours allows students to increase the range and depth of their understanding. All students enrolled in the second year of the program are expected to complete a variety of increasingly complex project work. They also are expected to participate in the design, layout and production of various "live jobs." Both the "live jobs" and the projects are intended to further develop their skills and overall understanding of the graphic communication industry. Second-year students may choose the privilege of participating in job-shadow and internship experiences. Job shadowing and internships provide a stronger foundation and background for the advanced student desiring to enter the industry. For students planning to continue their postsecondary education, these foundational experiences provide the opportunity to earn additional college credit.

## **Information Technology I-III HS (ITP201/202/301/302/401/402) @ Central Campus**

Grades: 10-12

Information Technology is a multi-year program with two block courses designed to assist students in acquiring the knowledge and skills needed for success in one of today's fastest growing career areas. Students learn about firewalls, vpns, computer forensics, ethical hacking, and so much more! We have a ton of fun doing hands-on work, going on field trips, and especially participating in the Cyber Defense Competition where we defend servers from hackers. Students who complete this course can earn IT! Students may have the opportunity to participate in paid registered apprenticeships. The skills learned in this course will be a solid foundation for a career in Information Technology!

## **Info Systems: Comp Programming (ITP435) @ Central Campus**

Prerequisites: Computer class recommended along with strong interest in field.

Information systems is a multi-year program that will focus on preparing students for a future in the software side of technology. This industry is in great demand for talented professionals. Locally there are always many opportunities for work in this field that covers a wide variety of job titles.

## **Broadcasting & Film is a 3-year program at Central Campus**

Prerequisites: None

### **Year 1 = Broadcasting/Film I HS (MDA211/212) and \*Broadcasting/Film I (MDA2112/2122)**

MDA2112 offers DMACC HUM 120, Introduction to Film, 3 credits

MDA2122 offers DMACC HUM 121, America in the Movies, 3 credits

### **Year 2 = Broadcasting & Film II (MDA311/312) and \*Broadcasting/Film II (MDA3112/3122)**

MDA3112 offers DMACC MMS 480, Video Production I, 3 credits

MDA3122 offers DMACC MMS 484, Premiere/Video Editing I, 3 credits

### **Year 3 = Broadcasting & Film III HS (MDA411/412)**

The Broadcasting & Film Department at Central Campus is a dynamic, three-year program which concentrates on the creative and communication aspects of the radio/television/film industry. Emphasis is placed on analysis of career paths and the production techniques associated with gainful employment. Considerable time is spent working on the craft of writing, reading, equipment operation, announcing, creative thinking and management skills. The program may include studio assignments in the FCC-licensed radio station, KDPS 88.1 FM (and streaming live online: kdpscentral.streamon.fm), or submission of film and television projects to DMPS-TV. Students also have the opportunity to submit work to various contests and festivals, such as the Wild Rose Film Festival, 48 Hour Film Festival, Iowa Motion Pictures Association Film Festival, Cedar Rapids Film Festival and John Drury Radio Awards. Projects may be submitted to colleges and universities in pursuit of scholarships in the area of Broadcasting & Film.

## **Business / Technology**

### **Intro to Business (BUS103)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Introduction to Business offers students the opportunity to examine a variety of careers in the field of business. The course will include activities designed to help students assess their interests, aptitudes, and abilities and match them with the requirements of various occupations. Activities such as resume writing, interviewing, problem solving, and working with groups will be included in order to help students develop skills to obtain and keep a job. Topics include: economics, business organization, and career planning and development

### **General Business (BUS105)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

General Business is designed to enhance students' understandings of the role businesses play in our present-day economic system. Topics include: financial planning and services, consumerism, investing, insurance, and marketing.

## **Beginning Computer Apps (BUS111)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Beginning Computer Applications is designed specifically for students new to computer applications and/or new to the English language. Students will be introduced to Microsoft Office by producing flyers, charts, graphs, and presentations. Students will complete projects in each topic. This course will help students to develop skills needed for both professional, educational, and personal use. Topics include: word processing, presentation, spreadsheet functions, and database management.

## **PLTW Computer Science Essentials (TEC161/TEC162)**

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Credit/Semester

Designed to be the first computer science course for students who have never programmed before, Introduction to Computer Science is an optional starting point for the PLTW Computer Science Program. Students work in teams to create apps for mobile devices using MIT App Inventor. They explore the impact of computing in society and build skills in digital citizenship and cybersecurity. Beyond learning the fundamentals of programming, students build computational-thinking skills by applying computer science to collaboration tools, modeling and simulation, and data analysis. In addition, students transfer the understanding of programming gained in App Inventor to text-based programming in Python and apply their knowledge to create algorithms for games of chance and strategy.

## **\*AP Computer Sci Principles (TEC551/552)**

PREREQUISITES: Algebra I | Offered: Yearlong Course | .5 Credit/Semester

This course introduces students to the central ideas of computer science, instilling the ideas and practices of computational thinking and inviting students to understand how computing changes the world. The rigorous course promotes deep learning of computational content, develops computational thinking skills, and engages students in the creative aspects of the field.

## **Accounting (BUS301)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

An understanding of the purpose of the accounting function will be developed during Accounting I. This course will also assist students in the development of a vocabulary and in the acquisition of the skills and general information necessary to perform the accounting function. If you would like to earn DMACC concurrent college credit, enroll in BUS533. Topics include: accounting basics, transaction analysis, special journals, banking procedures, payroll, and accounting cycle for business.

## **Marketing / Principles (BUS311)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

This course will provide a broad overview of the marketing process and the role that marketing plays in our lives. Various marketing functions such as research, transportation, warehousing, advertising, promotion, pricing and selling will be studied. There will be a heavy emphasis on occupational opportunities and requirements in each area. Topics include: marketing foundations, consumer marketing, marketing mix, and marketing plan.

## **Marketing / Retail (BUS312)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

This course is designed to prepare students for employment or future education in the area of retail marketing. Specific topics studied include site selection, store layout, display, promotion, advertising, pricing, discounting, warehousing, ordering, special sales, selling, and control of merchandise and receipts. Careers in retailing will also be investigated thoroughly. Personal and workplace human relation skills will be studied.



### **Marketing / Sales (BUS313)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

The emphasis of this course will be on selling techniques and human relations skills needed by salespeople. All aspects of the selling process, from preparation to closing and follow-up, will be examined and practiced. Selling as a career will be investigated, and job-seeking skills will be developed. To earn college credit please enroll in BUS529.

### **Marketing / Entrepreneurship (BUS314)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

The steps necessary when starting and managing a business will be covered in this course. The relationship of information-gathering and decision-making in business organization and management is emphasized. Personal traits and characteristics of entrepreneurs and managers will be investigated. The nature of risk and the role it and management play in our economy will be studied. Management styles and philosophies will be discussed through the use of guest entrepreneurs. Topics include: entrepreneurship, management, marketing, and business plan.

### **Business Law (BUS321)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

This course will help students understand basic legal principles relevant to individual rights and professional life. We will be learning through case studies, role-playing, online simulations and other interactive activities. Emphasis will be placed on helping students recognize those situations that occur in life that require assistance from legal professionals. Topics include: contract law, criminal/civil law, family law, and employment law.

### **Personal Finance Management (BUS323)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Students will study the management of personal, family, and business finances, including: budgeting, consumer buying, personal credit, savings and investing, home ownership, insurance, and retirement. This course will help prepare all students for their financial challenges now and in the future. Topics include: savings and budgeting, credit and debt, financial planning and insurance, and income taxes and giving.

### **Computer Applications (BUS333)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

This course includes modern information processing techniques with a heavy emphasis on the use of electronic databases and spreadsheets. The course also stresses the importance of human relations and communication skills necessary for job success, the development of marketable skills using the most current procedures and technologies, and application of time management and decision-making skills. If you would like to earn DMACC concurrent college credit, enroll in BUS531. Topics include: word processing, spreadsheets, database, and electronic presentation.

### **Money Moguls (BUS347)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Welcome to Money Moguls, your gateway to understanding the fast-paced world of banking, insurance, and finance. This course will introduce you to the skills that many of the largest employers in the Des Moines area, such as Principal Financial Group, Wells Fargo, and Nationwide Insurance, want their employees to know and be able to do. Get a head start on your learning in this course!

### **Business Start Up (BUS355)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

This class, formally known as Small Business Start-up, will teach you how to turn your passion and skills into a small business opportunity where you are the boss. You will learn what you need to know to develop and start your successful business. In this course, you will: find a business niche, determine legal requirements for start-up, develop budgets and marketing strategies, determine human resources needs, and present your start-up plan. Students have the opportunity to take a proficiency exam. Upon passing, students will be awarded University of Iowa credit in ENTR:1010 Exploring Entrepreneurship, 3 s.h.

### **\*Digital Influencers – Social Media and Advertising (BUS357)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Offers DMACC MKT 150, Principles of Advertising, 3 credits

Learn how to use social media and content marketing to generate interest in your product or service. Investigate the risks and rewards with digital marketing and learn how to create dynamic ads that make people want to buy! Students will develop and implement a social media and digital marketing plan and will learn how to use data analysis tools to assess its effectiveness. In addition to exploring social media tools and advertising principles, students will learn about using websites, blogs, search engine optimization (SEO), lead generation, and email to market their business.

### **Investments & Real Estate (BUS369) @ Central Campus**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Have you ever wondered how investing works or what cryptocurrency is? This course will dive into the investing process and give you practical experience establishing and maintaining an investment portfolio. We will learn about stocks and bonds, mutual funds, retirement investments, real estate, and cryptocurrency. You will gain experience analyzing information to determine if, and how, your investment portfolio is growing.

### **\*Student CEOs (BUS371) @ Central Campus**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

DMACC BUS 148, Small Business Management, 3 credits

Do you want to be the boss? This class is for you! You'll learn about business operations from managing employees and customers to using data to make decisions that will make your business a success. This course gives you a little bit of everything you need to be a leader in the fancy corner office!

### **Business Incubator (BUS373) @ Central Campus**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

The course is for juniors and seniors who are ready to apply what they know about business. In this class, students will run the school-based store and work with our business partners to complete their real-world projects. There is also opportunity for students to internship with a community partner. This course is repeatable!

### **\*College Pers Finance Mgmt (BUS523)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

DMACC FIN 121, Personal Finance, 3 credits

Students will study the management of personal, family and business finances, including budgeting, consumer buying, personal credit, savings and investing, home ownership, insurance, and retirement. This course will help prepare all students for their financial challenges now and in the future. Topics include: savings and budgeting, credit and debt, financial planning and insurance, and income taxes and giving. This course offers DMACC concurrent enrollment credit.

### **\*College Desktop Publishing (BUS527)**

PREREQUISITE: Beginning Computer Apps or Computer Apps or \*College Computer | Offered: Fall or Spring | .5 credit

DMACC BCA 242, Publications and Photo Editing, 3 credits

This course stresses the in-house preparation of documents, brochures, leaflets, and newspapers. Current procedures and technologies will be used while stressing the importance of communication skills. Individual and group projects will be completed for inclusion in their personal employment portfolios. Topics include: document planning and design, file conversion and organization, type, and image enhancement. This course offers DMACC concurrent enrollment credit.

### **\*College Computer Applications (BUS531)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

DMACC BCA 212, Intro Computer Business Appl, 3 credits

This course includes modern information processing techniques with a heavy emphasis on the use of electronic databases and spreadsheets. The course also stresses the importance of human relations and communication skills necessary for job success, the development of marketable skills using the most current procedures and technologies, and application of time management and decision-making skills. Topics include: word processing, spreadsheets, database, and electronic presentation. This course offers DMACC concurrent enrollment credit.

### **\*College Accounting (BUS533)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

DMACC ACC 111, Intro to Accounting, 3 credits

An understanding of the purpose of the accounting function will be developed during Accounting I. This course will also assist students in the development of a vocabulary and in the acquisition of the skills and general information necessary to perform the accounting function. Topics include: accounting basics, transaction analysis, special journals, banking procedures, payroll, and accounting cycle for business. This course offers DMACC concurrent enrollment credit.

## **Construction Skilled Trades**

### **Exploring Tech Ed (TEC101) @ Lincoln HS Only**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

This course includes learning experiences in the four technological areas of graphic communications, wood/construction, metals, and drafting. In these four areas, students will develop introductory skills in safety; positive work attitudes; the use of tools, equipment, processes and materials; and the application of basic working skills. These competencies and learning experiences will assist the students in identifying their career goals(s) as it relates to the programs at Central Campus and their home high school.

### **Construction Intro to Industry (TEC231) @ Lincoln HS Only**

Prerequisite: NONE | Offered: Fall or Spring | .5 credit

This course is for all students. Attention juniors and seniors who want a class with job offer potential upon completion of our program! This course uses Ace accredited, LIUNA Training Education Curriculum for classroom instruction. Students will be provided boots, bibs, gloves and hard hats for outdoor simulations. This course is designed for students interested in commercial construction duties specific to the Laborers Union. Students will learn about Union history as well as participate in form setting, scaffold building, cement pouring, screeding, and gain common tool knowledge specific to cement work and forming. Students will also have the opportunity to earn an OSHA 10 card; this safety certification is accepted nationwide in the construction industry and sets our students ahead of the curve regarding training, experience and pay.

## **Construction Pre-Apprentice (TEC331/332) @ Lincoln HS Only**

Prerequisite: Construction Intro to Industry | Offered: Yearlong Course | .5 Credit/Semester

The Construction Pre-Apprenticeship course will focus on the commercial construction process. Students will be working with experienced professionals in the field, as well as representatives of local contractors and local apprenticeship programs. The course will be utilizing the Ace Accredited LIUNA Training Education Fund General Construction II curriculum. Topics include: Employability Skills, Hoisting and Rigging, Cutting and Burning, Concrete, Pipe Laying, Blue Print Reading and Line Grade, Ladders and Scaffolds. Throughout the school year, the students will be involved in building a community project. General Construction II qualifies for three college semester hours in Introduction to Construction Technology. Completion of this course qualifies for direct entry to LIUNA's Construction Craft Laborers' Apprenticeship Program.

## **Intro to Const (Skilled Trades) (STA221) @ Central Campus**

PREREQUISITE: NONE | Offered: Fall or Spring | 1.0 credit

***This course is a good option for students who are unable to take Industrial Technology classes, such as Woodworking and Carpentry at their home school.*** Students taking this course will be introduced to the Carpentry, Welding, Plumbing/Mechanical, and Electrical trades. They will learn about the materials used in these industries and develop an understanding of the fundamentals of construction within each of these types of industries. Students will work with various power tools and hand tools common to the different industries and will learn how to analyze workplace hazards and identify how to safely work around these hazards. Students will learn to take precise and accurate measurements, what a jobsite looks like, and how a project is completed from start to finish. The course will help students identify the type of construction they enjoy and provide them with the starting point towards a pathway in skilled trades.

## **Metalworking Fundamentals I (TEC207)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Students will be introduced to basic processes within all manufacturing industries. Through classroom, lab and problem solving activities, students will develop skills and knowledge in the areas of bench metal (sheet metal, small hand and power tools), machine tools (lathes, grinders, mills, drill presses), and hot metals (gas and arc welding foundry, forging). As students explore the areas of metalworking, emphasis will be placed on career opportunities and safety. Students will apply their learning from academic areas as they use and develop skills relating to measurement, blueprint reading, and layout.

## **Metalworking Technology 2 (TEC209)**

PREREQUISITE: Metalworking Fundamentals I | Offered: Fall or Spring | .5 credit

This course will build upon the metalworking skills, knowledge and problem solving abilities acquired in Metalworking Fundamentals I. Through hands-on and problem solving activities, the students will develop an understanding of the basic elements of metalworking including: design, planning, producing, and distribution of a manufactured product. Students will be introduced to the use of manufacturing equipment and materials commonly found in industry today including test equipment, robots, lasers, CNC, CAM, and other various computer applications.

## **Introduction to Wood Construction I (TEC211)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Students will be introduced to Wood Construction as a career and/or vocation. Through a variety of hands-on, problem-solving projects, students will learn the safe use, care and maintenance of various hand tools, power tools, and stationary equipment. Projects will be produced using a variety of processing techniques and technologies used in the construction industry. Students will build upon their skills from other academic areas as they interpret technical information from working drawings, complete board feet calculations, and study wood science.

## **Introduction to Wood Construction 2 (TEC213)**

PREREQUISITE: Introduction to Wood Construction I | Offered: Fall or Spring | .5 credit

This course will build upon the wood construction skills, knowledge and problem-solving abilities acquired in Intro to Wood Construction I. The course is designed to provide students with an understanding of technology and its impact on the construction industry. Students will continue to work with CNC equipment in the production of their projects. Students will have the opportunity to explore the impact of technology on the construction industry. Students will continue to build upon their skills from other academic areas as they interpret technical information from a variety of technical sources, and calculate materials needed, materials strength, and building design.

## **Carpentry is a 2-year program at Central Campus**

Prerequisites: Technical Education course recommended | Grades: 10-12

### **Year 1 = \*Carpentry (STA265/2652/2653/2654) and Carpentry HS (STA2662)**

STA265 offers DMACC CON 336, Care/Use of Hand/Power Tools, 1 credit

STA2653 offers DMACC CON 337, Common Blueprint Reading, 1 credit

### **Year 2 = Carpentry II HS (STA3653/3662)**

This program concentrates on craftsmanship in the areas of woodworking and carpentry. In year one, students will continue to develop machine techniques as they construct various projects including cabinets, tables, and finish carpentry construction applications. During year two, students continue to develop machine techniques as they construct individual projects which will be developed by the student and teacher together. During both years, students will be exposed to home building concepts and techniques including: framing, flooring, trim, roofing, and other aspects of residential types of building projects. Work-based learning experiences will be provided during both years to allow students to gain understanding of the various opportunities for future employment in a carpentry career. In addition, students will learn teamwork, budgeting, purchasing, and estimating to prepare for careers in contracting. This experience has direct links to the local union apprenticeship programs, DMACC and other training programs after graduating from high school.

## **Advanced Metals I (TEC309)**

PREREQUISITE: Metalworking Technology 2 | Offered: Fall or Spring | .5 credit

This advanced course is available for students to continue to develop machine techniques as they construct various projects. The individual projects will be designed by the student and teacher together and will involve some power mechanics and CNC machining.

## **Advanced Metals 2 (TEC310)**

PREREQUISITE: Advanced Metals I | Offered: Fall or Spring | .5 credit

This advanced course is available to students to continue to develop machine techniques as they construct various projects. The individual projects will be designed by the student and teacher together and will involve some power mechanics and CNC machining.

## **Electricity and Electronics (TEC361) @ Lincoln HS Only**

PREREQUISITE: NONE | Offered: Fall | .5 credit

In this course, students will learn skills and career opportunities that are valuable in industry as electricians or electrical engineers. Through classroom and lab activities, students will gain skills and knowledge in the areas of digital electronics and residential wiring. Learn to build functioning circuits as well as how to wire outlets and light switches. This course will help you understand how we manipulate and channel this exciting and invisible energy source that is singularly responsible for the advancement of our world and society.

## **STA Plumbing & Mechanical Systems HS (STA2433/2443) @ Central Campus**

The Plumbing & Mechanical Systems (HVAC) program is currently a one-year program that provides students with hands-on skills, knowledge, and attitude needed to begin their career in the Plumbing & Mechanical Systems industries. Students will explore the many career options available in today's plumbing & mechanical systems professions. Students will learn about safety; the tools of the trade; skilled trades math; how to read drawings; various piping materials and connection methods, using fittings; plumbing fixtures; Drain, waste, and vent systems; water distribution systems; HVAC fundamentals; furnaces; air conditioning equipment; and thermostats. Integrated into the course is a Skilled Trades Technical Math Course. The Plumbing and Technical Math Course earns students high school and DMACC Credits.

## **Electrical Construction is a 2-year program @ Central Campus**

PREREQUISITE: Technical Education course recommended | Offered: Yearlong | 1.0 credit/semester

Year 1 = Electrical Construction HS (STA371/372)

Year 2 = Electrical Construction II HS (STA471/472)

The electrical program is a multi-year program that provides students with hands-on skills, knowledge, and attitude needed to begin their career in the electrical industry. Students will explore, and identify how to safely work around, electricity. Students will spend time building and understanding electrical circuits, practice with and learn the safe and proper use of working with common electrical tools and electrical materials, practice bending; cutting; and threading electrical conduit, use full scale construction drawings to become proficient in reading blueprints, install a residential electrical service, electrical panel, and common residential electrical devices.

Throughout the program, students will be given the opportunity to tour, work with, and apply for local electrical apprenticeships and local industry leaders. Students will spend time working on their math and measurement skills needed for passage through an electrical apprenticeship. Students will demonstrate employability skills; practicing needed communication skills, expected workplace skills, and collaborative team skills.

Successful completion of the electrical program will result in receiving certification of Interim Credentialing and can provide advanced placement into the Des Moines Electrical Apprenticeship.

## **Welding is a 2-year program at Central Campus**

Prerequisite: None | Offered: Yearlong

### **Year 1 = \*Welding (STA375/3752/3753/3763) and Welding HS (STA3762)**

STA375 offers DMACC WEL 228, Welding Safety/Health: SENSE1, 1 credit

STA3753 offers DMACC WEL 274, SMAW I: SENSE1, 3 credits

STA3763 offers DMACC WEL 244, GMAW Sh Cir Transfer: SENSE1, 2 credits

### **Year 2 = \*Welding II (STA475/4754/4755/4764)**

STA475 offers DMACC WEL 233, Print Read/Sym Inter: SENSE1, 3 credits

STA3754 offers DMACC WEL 275, SMAW II: SENSE1, 3 credits

STA4755 offers DMACC WEL 245, GMAW Spray Transfer: SENSE1, 2 credits

STA4764 offers DMACC WEL 251, GTAW Carbon Steel: SENSE1, 2 credits

Welding provides opportunities for students to gain skills in blueprint reading, design, layout, and fabrication of specific projects large and small. Throughout the program, students develop skills in different welds such as oxy-acetylene, shield metal arc, MIG, and plasma arc cutting. Students also receive instruction on key construction welding techniques to include pipe welding, and TIG welding with a variety of steels and steel alloys. Welding students have the opportunity to meet and work with employers in the second year of the welding program. This program has a registered apprenticeship with John Deere where students get paid, earn credit and credentials, and could gain employment at John Deere.

## Education and Leadership

### Career Opportunities Education HS (TAC275) @ Central Campus

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Career Opportunities in Education is for freshman and sophomores who are interested in working with youth and are considering a career in education. Students will learn employability skills, explore a variety of career opportunities, learn legal requirements for education, history of education, and educational systems. Students will enjoy guest speakers who work with youth in differing roles, develop their own career goals, and create resumes to help them pursue those goals.

### Dream to Teach is a 2-year program at Central Campus

#### Year 1 = Dream to Teach I HS (TAC251/2522)

#### Year 2 = \*Dream to Teach II (TAC351/352) and Dream to Teach II HS (TAC3513/3522) @ Central Campus

TAC351 offers DMACC EDU 210, Foundations of Education, 3 credits

TAC352 offers DMACC EDU 218, Initial Field Experience, 2 credits

Dream to Teach I is an introduction to the field of education/teaching and is offered to ninth through twelfth grade students. The course introduces students to a variety of careers in education through a curriculum that integrates academic and workplace skills. Students will be exposed to guest speakers from different backgrounds and educational roles. Students will also learn about the foundations of education, educational theories/theorists, and pedagogy through a social justice lens.

Dream to Teach II is offered to eleventh and twelfth grade students who have either taken Dream to Teach Year One or who have participated in their school's Dream to Teach club. The course will examine education from a historical, philosophical, and sociological perspective. Challenges and issues in education today will be discussed in the context of school organization, politics, funding, and curriculum through a social justice lens. First semester will help prepare students for their upcoming student teaching internships by reviewing topics such as professionalism, mandatory reporting, cultural responsiveness, etc. Second semester, students will acquire extensive field experience through student teaching internships, observation, and field trips. Students will work to develop leadership skills toward becoming agents of change in their schools and communities. This class provides a strong foundation and transition to teacher education programs post high school.

### ROTC Marines (MIS169/170/171/172) @ Central Campus

The primary purpose of the MCJROTC Program is Leadership Education. It prepares high school students for responsible leadership roles while making them aware of their rights, responsibilities, and privileges as American citizens. In order to be a good leader, one must first learn to be a good follower. As a cadet gains experience and knowledge, he or she will be given active, hands-on leadership responsibilities within the JROTC Program. The Marine Corps JROTC Leadership Education Program emphasizes the development of self-discipline, leadership, honor, integrity, and the value of community service. Citizenship training is emphasized throughout the program and reinforced by using current events and activities occurring in the Polk County area, the state of Iowa, our nation and the entire world. In addition, students are acquainted with basic military skills and Marine Corps traditions. Satisfactory completion of the program can lead to preferential consideration for a service academy appointment, advanced placement credit in the Senior ROTC program or advanced rank in the Armed Forces.

### Criminal Justice (CJT461/462) @ Central Campus

Offered: Fall or Spring

CJT461 offers DMACC CRJ 100, Intro to Criminal Justice, 3 credits

CJT462 offers DMACC CRJ 141, Criminal Investigation, 3 credits

The Criminal Justice program gives students the opportunity to explore careers in police work, criminal law, crime scene investigation, and other related vocations. Faculty works closely with the Des Moines Police Department and Polk County Sheriff's Office to provide authentic experience in a vibrant law enforcement community. Students participate in mock crime scene scenarios and job shadowing professionals.

## **Environmental & Agri-Sciences**

### **\*Marine Biology/AqSci (AQS445/446) and Marine Biology/AqSci Lab (AQS4452/4462) @ Central Campus**

Prerequisite: None

AQS445 offers DMACC BIO 225, Marine Biology I, 4 credits

AQS446 offers DMACC BIO 227, Marine Biology II, 4 credits

The Marine Biology program puts students face to face with hundreds of marine organisms found around the world. Students won't just learn about the ocean from books, they also take care of over 100 "tiny oceans" during the year and personally interact with sharks, jellyfish, corals, nautilus, and hundreds of fish in a new facility modeled after university laboratories and public aquariums. Students are also given the opportunity to conduct their own research projects, participate in science fairs, practice field work by kayaking, dissect different organisms, and more. What makes this program so unique is that it is a student-run laboratory and aquarium which gives each student the opportunity to literally get their hands wet in everything that goes on, but to also leave a legacy for other students by coming up with new ideas for aquariums and different marine organisms to have in the program.

An optional Field Studies course occurs in March where the students are able to put their skills to the test, earn college credit, and have a lot of fun! For 1-2 weeks, students become "Marine Biologists" and participate in several activities to gain an understanding of life as a marine biologist. Previous trips have gone to California, Texas, and Florida. Most expenses for this trip are the responsibility of the student. At least one fundraiser is made available to students to help offset the cost. Marine Biology is an elective credit course and does not satisfy high school science credit requirements.

### **\*Aquarium Science (AQS465/466) and Aquarium Science Lab HS (AQS4652/4662) @ Central Campus**

Prerequisite: None

AQS465 offers DMACC AGS 222, Aquaculture/Aquarium Sci I, 3 credits

AQS466 offers DMACC AGS 249, Aquaculture/Aquarium Sci II, 3 credits

In Aquarium Science, students experience aquatic animal husbandry and aquaculture in a facility modeled after a professional public aquarium laboratory. They learn to replicate environmental conditions in the lab similar to those on a coral reef by studying the effects of lighting, water quality, and nutrition on the saltwater organisms in their care. Hands-on activities in the laboratory include breeding saltwater clownfish, propagating live corals and anemones on the coral farm, breeding jellyfish, and live food culture. This program prepares students for careers in Marine Biology, Environmental Science, commercial aquaculture (fish hatcheries), public aquariums, aquarium maintenance, pet industries and most environmental fields. Students in Aquarium Science are eligible to participate in an optional marine field ecology trip in the spring semester for DMACC credit. Aquarium Science is an elective credit course and does not satisfy high school science credit requirements.

### **Animal Science (SCI239/2403) and \*Animal Science (SCI240/2402) @ Central Campus, 201 County Line Rd Plant Science HS (SCI2412/2421)**

#### **Adv Plant Science HS (SCI335/336)**

Agri-Science year I

Plant Science was formerly titled Horticulture

SCI240 offers DMACC AGS 114, Survey of the Animal Industry, 2 credits

At our Agriculture Science Academy at 201 County Line Road on the southside of Des Moines (south of Blank Park Zoo), students learn about animals and plants through hands-on activities and exciting projects. The nation's largest secondary school student-run greenhouse and livestock facility allow them to gain practical experience in fields including agricultural business, environmental science, horticulture, landscaping, and veterinary careers. Students are enrolled as members of FFA, the national youth leadership organization, which enhances communication and leadership skills while attending the academy.



### **\*Entrepreneurship in Ag (SCI346) and Entrepreneurship in Agriculture HS (SCI347/3483) @ Central Campus, 201 County Line Rd**

Prerequisites: SCI239/2403 Recommended

Agri-Science year 3 option

SCI346 offers DMACC AGB 331, Entrepreneurship in Agriculture, 3 credits

The Entrepreneurship in Agriculture course covers learning targets to help students understand agricultural businesses, and how they could start their own business. Some of the topics covered in class include marketing, communications, economics, finance, and human resources. The Central Market, our own on-site grocery store, and the Campus Greenhouse plant sale will both be real-world businesses that this class helps manage. Students will also learn about various careers within the agricultural industry.

### **Floral/Greenhouse Production HS (SCI355/356) @ Central Campus, 201 County Line Rd**

Prerequisites: SCI239/2403 Recommended

Agri-Science year 2 option

The focus of the Floral and Greenhouse Production class at Central campus is to explore the world of flowers, floral arrangements, greenhouse management and maintenance. Students participating in this class will build on their knowledge of the horticulture industry in specific ways. The time spent in class is split between planning and designing floral arrangements and learning and demonstrating how to successfully run our greenhouses. This class is full of hands-on learning opportunities to engage students in exciting ways. Upon completion of this course, students will have the skills necessary to arrange flowers and efficiently work in the greenhouse.

### **Animal Science/Vet Careers HS (SCI443/4443) @ Central Campus, 201 County Line Rd**

Prerequisites: SCI239/2403 Recommended

Agri-Science year 2 option

Veterinary Science and Careers covers the skills necessary to being successful in an animal science career. All animal science careers are explored. The class includes the origins of common medical terms used in the veterinary field. The class will center on diseases of large and companion animals, including discussion of causes, transmission, prevention and control. Students will work with all animals and be involved in their care. Upon completion of this program, a student will feel comfortable with the nomenclature and skills necessary to work in the animal science industry.

### **\*Global Animal Science (SCI511) and Global Animal Science HS (SCI5113/5125) @ Central Campus, 201 County Line Rd**

Prerequisites: SCI239/2403 Recommended

Agri-Science year 3 option

SCI511 offers DMACC AGC 420, Agricultural Issues, 3 credits

The major focus of Global Animal Science will be biotechnology, current issues in the agriculture industry, preparing for the agriscience fair, and the World Food Prize. Students participating in this class will receive a broad view of current agriculture around the world and the advancement of technology in the industry. There are many hands-on laboratory learning experiences. Some of the labs include electrophoresis, DNA extraction, and pGLO experiments. Upon completion of this course, students will feel confident going into careers in the agriculture industry.

## **Family and Consumer Sciences/Human Services**

### **Personal Health & Development (FCSI01)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Personal Development & Health is a course designed to provide students with information about how to develop a healthy lifestyle. The topics included are self-concept, nutrition, exercise, substance usage and sexuality. Students will apply the decision-making process to health choices and examine the interrelation between physical, emotional, mental and social health.

### **Child Development 1 (FCSI03)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Previously named: Child Development, this course will include sexual health, conception, pregnancy and birth. Students will examine the decisions and responsibilities that go into planning a pregnancy. Students will develop skills in the care and guidance of children from birth through toddler. Students will participate in many activities designed to simulate the physical, social, emotional, and intellectual development of children.

### **Health: Relationships (FCS201)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

The Relationships course prepares students for a mature adult role as a single person or a marriage partner through the study of human development and relationships. The coordination of personal, marriage, family and career goals will be explored as well as resources for adjusting to change and crisis. Students will analyze skills needed to establish positive relationships with others.

### **Child Development 2 (FCS203)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Students will develop skills in the care and guidance of children from preschool to adolescent. Students will examine various types of parenting styles and determine which styles are most effective. Students will participate in many activities designed to simulate the physical, social, emotional, and intellectual development of preschool children and teens.

### **Nutrition & Food Prep 1 (FCSI07)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

In Nutrition and Food Prep I, students will apply nutrition principles to personal eating habits; and develop skills in the selection, care and preparation of a variety of food. Labs are designed to help students learn safe food preparation techniques.

### **Nutrition & Food Prep 2 (FCSI09)**

PREREQUISITE: Nutrition & Food Prep I | Offered: Fall or Spring | .5 credit

Nutrition and Food Preparation 2 challenges students to expand their understanding of the food industry while advancing their skills and knowledge with advanced food preparation techniques. Students will explore the basic operations of a restaurant and other food services including professional menus and dietary needs of customers. Throughout the course students will demonstrate advanced food preparation techniques while exploring foods, customs, and recipes.

## **Culinary Arts is a 3-year program at Central Campus**

Prerequisites: Nutrition & Food Prep 1/2 recommended

### **Year 1 = \*Culinary Arts (CUL365/3652/366/3663) and Culinary Arts HS (CUL3653)**

CUL365 offers DMACC HCM 100, Sanitation & Safety, 2 credits

CUL366 offers DMACC HCM 143, Food Preparation I, 3 credits

CUL3663 offers DMACC HCM 144, Food Preparation I Lab, 3 credits

### **Year 2 = \*Culinary Arts II (CUL465/4652/4653/466/4662/4663)**

CUL465 offers DMACC HCM 110, Baking (lab), 2 credits

CUL4652 offers DMACC HCM 320, Intro to Hospitality Industry, 2 credits

CUL466 offers DMACC HCM 152, Food Preparation II, 2 credits

CUL4663 offers DMACC HCM 153, Food Preparation II Lab, 2 credits

### **Year 3 = \*Culinary Arts III (CUL469/4692/4694/4695/472)**

CUL469 offers DMACC HCM 231, Nutrition, 2 credits

CUL4694 offers DMACC HCM 240, Menu Planning & Design, 2 credits

CUL472 offers DMACC HCM 510, Work Experience, 3 credits

Culinary Arts students explore opportunities for employment in the hospitality and food service industry through the operation of the student-run Central Campus Café. Students receive their ProStart certification from the National Restaurant Association and compete in local and national competitions. Students plan and prepare food, use institutional equipment, set up the dining room, and serve customers on designated Central Campus Café days. Students also have the chance to visit area restaurants and other hospitality businesses.

## **Hospitality & Tourism I HS (CUL383) @ Central Campus**

PREREQUISITE: NONE

Students will learn about the world of hospitality, lodging operations, food and beverage operations, event management, travel and tourism, and hospitality business and leadership skills. Through real-life examples and hands-on projects, students will develop necessary skills for a competitive advantage when pursuing a career in the hospitality and tourism industry.

## **Hospitality & Tourism II HS (CUL393) @ Central Campus**

PREREQUISITE: NONE

This course gives students a deeper dive into the inner workings of the hospitality and tourism industry. Students will learn how to plan and manage large and small events, concerts, and festivals; day-to-day hotel operations including: guest relations, operations, and hotel finance; and food and beverage service. At the completion of this course, students will have the skills and knowledge necessary to begin their career in the hospitality and tourism industry.

## **Anatomy & Physiology for Health Science (I semester) @ Central Campus**

PREREQUISITE: NONE

If you've thought about a career in health care, this course is for you! Students will learn the structure and function of the human body from the cellular level to organ systems. This course is designed for students wanting to pursue a career in the health care field, including those who wish to enroll in the CNA and/or EMT programs at Central Campus.

## **Medical Terminology (I semester) @ Central Campus**

PREREQUISITE: NONE

Offers DMACC HSC 300, Med Term for Health Sciences, 2 credits

This course will teach students the skills needed to communicate effectively in the health care setting. The course involves the breakdown and reconstruction of word parts and their definitions. This course will help students who want to enroll in the CNA and/or EMT programs at Central Campus and those who wish to pursue a health care career after high school.

## **Intro to Health Science (1 semester) @ Central Campus**

PREREQUISITE: NONE

This course is your passport into the health sciences world. All health care careers are possible with the learning and experience students will obtain in this entry-level course. Students will explore ethical issues and professional competencies and will learn about a wide range of health care careers.

## **Textile Construction (Sewing) I (FCS113)**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

Textile Construction (Sewing) I teaches sewing basics to construct clothing and textile products using appropriate equipment and techniques. Students may choose to purchase materials, patterns, and notions throughout the semester for individual projects.

## **Textile Construction (Sewing) 2 (FCS205)**

PREREQUISITE: Textile Construction (Sewing) I | Offered: Fall or Spring | .5 credit

In this course students will experiment with more advanced sewing techniques. Students will select individual projects based upon their skill level and interest. Students may choose to purchase and bring materials, patterns, and notions throughout the semester for individual projects.

## **Housing & Design Industry (FCS207)**

Pre-Requisites: None | Offered: Fall or Spring | .5 credit

In this course students will analyze career pathways and opportunities for employment and entrepreneurial endeavors in the housing industry. Students will explore interior design, exterior design, housing decisions, and housing trends.

## **Fashion Runway (FCS213)**

PREREQUISITE: NONE | Offered: Fall | .5 credit

Students in Fashion Runway will explore fashion careers by doing projects similar to those done in the fashion industry. Careers included are fashion designer, marketing, and entrepreneurship. Planning a fashion show or presenting individual designs are also part of this course.

## **Intro to Fashion Design (FDM223/224)**

PREREQUISITE: NONE | Offered: Yearlong | .5 credit/semester

This course is intended for the student with very little or no sewing experience who would like to learn the basics of sewing. The course includes construction of two or more simple garments and/or projects. This course is intended to be a feeder class to the Fashion Design class. Sophomores are encouraged.

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## **\*Intro to Garment Construction (FDM227) at Central Campus**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

FDM227 offers DMACC APP 255, Intro to Garment Construction, 3 credits

This course is intended for the student with very little or no sewing experience who would like to learn the basics of sewing. The course includes construction of two or more simple garments and/or projects. This course is intended to be a feeder class to the Fashion Design class. Sophomores are encouraged.

## **Fashion Design & Merchandising is a 2-year program at Central Campus**

Prerequisites: Sewing Technology or Fashion recommended.

### **Year 1 = \*Fashion Design & Merchandising (FDM327/328) & Fashion Design & Merch HS (FDM3273/3283)**

FDM327 offers DMACC APP 109, Creative Design Foundations, 3 credits

FDM328 offers DMACC APP 209, Textile Science, 3 credits

### **Year 2 = \*Fashion Design & Merchandising II (FDM427) & Fashion Design & Merch II HS (FDM4273/428)**

FDM427 offers DMACC APP 261, Fashion Industry Analysis, 3 credits

Within the creative discipline of Fashion Design, students discover fascinating fundamentals of the fashion industry and learn about all of the exciting behind-the-scene details that make every show and every display perfect. Study famous and up-and-coming designers, explore historical and current trends, and learn the importance of alterations and proper fit. In this program, students build upon their sewing skills, create fashion drawings, and analyze the designs of others. The program enhances entrepreneurial skills and techniques to successfully market their designs in the fashion industry. The culminating event for this program is a spring fashion show that is created and produced by the fashion students and other cooperating Central Campus programs.

## **Future Ready**

### **Future Ready: Acad Career Plan (CTE101)**

Prerequisite: NONE | Offered Fall or Spring | .5 credit

Future Ready will direct students in career and academic planning. Students will be exposed to all types of postsecondary options. Future Ready will meet graduation requirements including Health Literacy, Financial Literacy, Technology Literacy, and Employability Skills. Future Ready will help prepare students for life after HS...whether college, vocational, or directly into the workforce. Topics include: health literacy, financial literacy, technology literacy, and employability skills.

### **Future Set: Acad Career Plan (CTE301)**

Prerequisite: NONE | .5 credit

Recommended for juniors and seniors. This course helps you prepare a plan for moving out on your own and determining next steps after high school. Future Set is a student driven course that is designed to answer all of your burning questions about life after high school! This course will cover post-secondary education/training, career readiness, housing decisions and personal financial decision making to make you successful as you navigate the world of adulthood. Topics include: college readiness, housing decisions, personal finance, and careers.

## **Health Sciences**

### **Career Opportunities in Health HS (COH311) @ Central Campus**

Prerequisite: Current immunizations as required.

Career Opportunities in Health introduces students to a variety of health careers through a curriculum that integrates academic and workplace skills. Rotations at UnityPoint Health-Des Moines hospital and clinic locations, as well as other private clinics throughout the metro, provide observation experiences that allow students to explore careers of their interest, learn about medicine and work towards an understanding of the big picture of healthcare while developing personal skills.

### **\*Emergency Medical Tech Internship (CNA387) @ Central Campus**

PREREQUISITE: Criminal/abuse background check; Immunization form as required by clinical site; influenza vaccine – October through April. Must pass with a C or higher to continue. See DMACC website for more information.

CNA387 offers DMACC EMS 214, Emergency Medical Technician, 6 credits

The Emergency Medical Technician certificate is designed to provide an introductory learning experience for persons interested in the field of pre-hospital emergency medicine. This course includes practical and computer-based testing in the classroom, as well as clinical and field experience in area hospitals and with local EMS agencies. National Registry certification testing will be available upon successful course completion in both the cognitive and hands-on psychomotor skills areas. Area fire departments and EMS agencies, as well as some hospital emergency departments, urgent care clinics and industrial settings utilize EMTs.

## **\*Basic Nurse Aide (CNA391/392) and Basic Nurse Aide HS (CNA3913/3922) @ Central Campus**

## **\*Adv Nurse Aide (CNA393/394/3942/3943) and Adv Nurse Aide HS (CNA3933/3944)**

Prerequisites: Criminal/abuse background check; Immunization form as required by clinical site; influenza vaccine – October through April. Must pass with a C or higher to continue. See DMACC website for more information.

CNA391 offers DMACC HSC 172, Nurse Aide, 3 credits

CNA392 offers DMACC HSC 172, Nurse Aide, 3 credits

CNA393 offers DMACC HSC 172, Nurse Aide, 3 credits

CNA394 offers DMACC HSC 182, Advanced Nurse Aide, 3 credits

CNA3942 offers DMACC HSC 101, Emergency Care, 1 credit

These programs give students the opportunity to learn the necessary skills and training to work in various health care settings. They experience classroom and laboratory instruction along with supervised clinical experience in local long-term care (nursing home) and hospital settings. The advanced program also provides students the opportunity to obtain health care provider BLS certification.

Nurse Aide certification is required for admission to most Iowa nursing schools. Either of these courses prepares students for the nurse aide certification. This course includes classroom and laboratory instruction at Central Campus and supervised clinical experience at various health care settings. In addition to the content of the 75-hour Nurse Aide class, the 150-hour Advanced Nurse Aide class covers skills and knowledge utilized by nurse aides in skilled-care units and in hospital areas. Content in the 150-hour course is presented at a faster pace than in the 75-hour Nurse Aide class.

## **Transportation**

### **Intro to Automotive (CAR228) @ Central Campus**

PREREQUISITE: NONE | Offered: Fall or Spring | .5 credit

This course covers basic physical and mechanical principals related to the transportation field, including ownership, maintenance, and related careers. Through instruction, demonstrations, hands-on and problem-solving activities, students gain knowledge of skills involved in the operation and servicing of internal combustion engine systems, and the body and structural systems of various vehicles, including their parts and accessories. They also learn to apply safety as related to the vehicle, hand and power tools, test equipment, and materials common to this course. Students gain additional knowledge and skills in the cranking and charging systems, fuel systems, power transmission devices, body and chassis systems, steering components, and accessory systems. Instruction will emphasize technologies related to modern vehicles with an introduction to electronic and computer-controlled systems.

### **Automotive Collision is a 2-year program at Central Campus**

Prerequisite: Intro to Automotive recommended | Offered: Fall

#### **Year 1 = Automotive Collision HS (CAR3133/3144)**

#### **Year 2 = Automotive Collision II HS (CAR4133/4142)**

Auto Collision Repair provides students with experience through repairs on late model, damaged automobiles. Quality workmanship, shop safety, good work habits, cooperation, dependability, and responsibility are stressed. Students become familiar with and work with the latest hand and power tools and equipment unique to this trade. The course is designed to prepare students to operate at the same level of workmanship that is found in local auto body shops. Refinishing products have been updated to the current state of the art waterborne paints that are found in many of the area dealership collision shops.

### **\*Automotive Technology I (CAR3177/3178) @ Central Campus**

Prerequisites: Intro to Auto CAR228 or other TEC course or interest in career | Offered: Fall and Spring

CAR3177 offers DMACC AUT 111, Intro to Auto Tech I, 6 credits

CAR3178 offers DMACC AUT 112, Intro to Auto Tech II, 6 credits

### **\*Automotive Technology II (CAR417/418) and Automotive Technology II HS (CAR4172/4182)**

CAR417 offers DMACC AUT404, Auto Suspension and Steering, 4 credits

CAR418 offers DMACC AUT704, Auto Heating & AC, 4 credits

In the Automotive Technology program students complete competencies and gain skills in working with automotive engines, brakes, steering and suspension, electricity/electronics, HVAC, engine performance, and transmissions. The program is also affiliated with most of the major automotive manufacturers including Ford, General Motors, Toyota, Honda and Chrysler through AYES (Automotive Youth Educations Systems).

Students are engaged academically in the classroom learning basic automotive knowledge and skills. Students are then exposed to real world activities in the automotive lab learning how to safely diagnose, disassemble, assemble and repair all aspects of the modern automobile. Students are introduced to automotive apprentice training programs through dealership tours and job shadowing. The AYES program allows successful students the opportunity to get a head start on their career with early entrance into dealerships and repair facilities through internships and co-op agreements. Students also have the opportunity to certify in four automotive areas.

## **Work Based Learning**

### **\*Career Exploration A (MIS241) @ Central Campus**

MIS241 offers DMACC WBL100, Career Exploration, 1 credit

The Dream 2 Teach II and Civil Architecture and Engineering programs offer a WBL component. Please read the description listed above under the program title for additional information on specific WBL experiences in these areas.

### **\*Employability Skills (MIS347) @ Central Campus**

MIS347 offers DMACC WBL110, Employability Skills, 2 credits

The Broadcasting and Film III offer a WBL component. Please read the description listed above under the Broadcasting and Film program for additional information on specific WBL experiences in this area.

### **\*Job Shadowing (MIS349) @ Central Campus**

MIS349 offers DMACC WBL150, Job Shadowing, 1 credit

The Dream 2 Teach II, Vet Careers, Com Photography II, Broadcasting and Film III, and Career Opportunities in Health programs offer a WBL component. Please read the descriptions listed above under the program titles for additional information on specific WBL experiences in these areas.

## Aviation Technology Academy @ Central Campus

Prerequisites: Technical education courses recommended along with strong career interest in Aviation and/or Aerospace.

The Aviation Technology Academy is comprised of two tracks; Aviation Maintenance and Private Pilot Ground School. Upon successful completion of Introduction to Aviation and Aerospace students may enroll in either track, or both.

The Aviation Maintenance program is located at 201 County Line Road on the southside of Des Moines and is designed to train students for careers in various areas of the rapidly growing Aviation Industry. Students have opportunities to become adept in aircraft Airframe & Powerplant (A&P) mechanics. The Aviation Technology Academy is the only high school FAA Certified Part 147 in the entire Midwest. Students earn both high school credit graduation and FAA certified training toward an Airframe Mechanic Certificate.

The Private Pilot Ground School classes are located Central Campus, 1800 Grand Ave, and is designed to prepare students for the FAA Private Pilot Knowledge Test and/or FAA Commercial Remote Pilot (Drone) Certificate. The Central Campus aircraft/drone pilot program is one of only 300 educational institutions using the AOPA (Aircraft Owners and Pilots Association) Foundation You Can Fly High School Aviation STEM Curriculum which earned the prestigious STEM.org Accredited Educational Program Trustmark. The curriculum, along with several Redbird Flight Simulators, allow students' passions to take flight.

### Introduction to Aviation (AVI225/226) @ Central Campus, 1800 Grand Ave

Prerequisites: NONE | Grades: 9-10-11-12 | Offered: Yearlong Course | .5 Credit/Semester

Introduction to Aviation's core curriculum provides the foundation for any aerospace and/or aviation career. It is designed to give students a clear understanding of career opportunities in aviation and aerospace and the critical issues affecting the aviation system. It serves as a prerequisite for either the Aviation Maintenance Technician or Private Pilot Ground School programs.

Introduction to Aviation will provide the foundation for advanced exploration in the areas of flying, aerospace engineering, and unmanned aircraft systems. Students will learn about engineering practices, problem-solving, and the innovations and technological developments that have made today's aviation and aerospace industries possible.

Students will look at the problem-solving practices and innovative leaps that transformed space exploration from the unimaginable to the common in a single generation. Students will also gain historical perspective, starting from the earliest flying machines and leading to the wide variety of modern aircraft and the integral role they play in making today's world work.

Students will also begin to drill down into the various sectors of aviation and the elements that make up the aviation and aerospace ecosystem. They will discover how advances in aviation created a need for regulation and will learn about the promulgation of civil aviation oversight.

Students will explore modern innovations and develop their own innovative ideas to address real-world challenges facing the aviation industry. They will be exposed to a variety of career options in aviation and aerospace and take an in-depth look at the opportunities available. This course will allow students to begin to define their individual interests, whether it be Aviation Maintenance Technician and/or Private Pilot Ground School programs.

### Aviation Maintenance I (AVI235/236) @ Central Campus, 201 County Line Rd

Prerequisite: Introduction to Aviation | Grades: 10-11-12 | Offered: Yearlong Course

Certificated Aviation Maintenance Technicians (AMT) work in highly-technical specialty occupations involved in keeping aircraft operating safely. AMTs hold highly-transferable skills that can be used in a broad-range of industries in, and out of, the aviation sector. An AMT is certificated by the Federal Aviation Administration (FAA) based on personal knowledge gained through training and experience, which is demonstrated via successful completion of written, oral, and practical tests.

The AMT program is the only high-school FAA certified aviation maintenance program in Iowa. The program uses a modern lab, classroom, and six aircraft to provide students with the knowledge & skills to possibly earn an FAA Airframe and/or Powerplant (A&P) Certificate.

The AMT program consists of up to three years of intense half-day daily study. Beginning with General during year 1, students explore certification, FAA regulations, human factors, technical areas applicable to both Airframe and Powerplant studies, and skills needed to be an entry-level aviation professional.



## **Aviation Maintenance II (AVI335/336) @ Central Campus, 201 County Line Rd**

Prerequisite: Aviation Maintenance I | Grades: 11-12 | Offered: Yearlong Course

The General curriculum continues during year two in which students expand on the previous year's knowledge and skills and focus on technical areas applicable to both an Airframe and/or Powerplant Certificate.

## **Aviation Airframe I (AVI341/342) @ Central Campus, 201 County Line Rd**

Prerequisite: Aviation Maintenance II | Grade: 12 | Offered: Yearlong Course

The first year of Airframe consists of airplane and helicopter structures. Students use a modern lab, classroom, and six aircraft to learn hands-on skills such as aluminum construction, composite construction, electricity, and flight controls.

## **Aviation Airframe II (AVI441/442) @ Central Campus, 201 County Line Rd**

Prerequisite: Aviation Airframe I | Grade: 12 | Offered: Yearlong Course

The second year of Airframe consists of airplane and helicopter systems. Students use a modern lab, classroom, and six aircraft to learn hands-on pertaining to aircraft hydraulic systems, navigation systems, nondestructive testing, painting, and pneumatic systems.

## **Aviation Powerplant I (AVI352/353) @ Central Campus, 201 County Line Rd**

Prerequisite: Aviation Maintenance II | Grade: 12 | Offered: Yearlong Course

The first year of Powerplant is a study of theory, inspection, and repair of airplane and helicopter reciprocating and turbine engines and propellers.

## **Aviation Powerplant II (AVI452/453) @ Central Campus, 201 County Line Rd**

Prerequisite: Aviation Powerplant I | Grade: 12 | Offered: Yearlong Course

The second year of Powerplant is a study of theory, inspection, and repair of airplane and helicopter reciprocating and turbine induction, ignition, exhaust, starting, and electrical systems including engine inspection and troubleshooting.

## **Pilot Ground School I (FLT441/442) @ Central Campus, 1800 Grand Ave**

Prerequisite: Introduction to Aviation | Grades: 10-11-12 | Offered: Yearlong Course

In the Pilot Ground School I Course students will take a closer look at aircraft operation. Students will begin with an exploration of the types of aircraft in use today before going on to learn how aircraft are made and how they fly. Students will understand how aircraft are categorized, be able to identify their parts, and learn about aircraft construction techniques and materials. They will gain an in-depth understanding of the forces of flight—lift, weight, thrust, and drag—including how to make key calculations. They will then touch on aircraft design, looking at stability, aircraft controls, and maneuvering flight. The course will also focus on career skills related to these topics. Students will take an in-depth look at the systems that make aircraft work as well as the instrumentation powered by those systems. Beginning with aircraft powerplants and fuel systems, students will learn about the different options available and how they affect aircraft design and performance. They will go on to explore other key aircraft systems, including electrical, pitot-static, and vacuum systems. Throughout, they will learn about the flight instruments associated with each system and how to identify and troubleshoot common problems. This course also covers airplane flight manuals, the pilot's operating handbook, and required aircraft documents. Students will learn about the factors that affect aircraft performance and how to determine critical operating data for aircraft.

## **Pilot Ground School II (FLT451/452) @ Central Campus, 1800 Grand Ave**

(Prerequisite: Pilot Ground School I)

Pilot Ground School II is foundational for any pilot career and will prepare students to take the Private Pilot Knowledge Test. Topics include pre-flight procedures, airspace, radio communications, aviation phraseology, regulations, airport operations, aviation safety, weather, cockpit management, and emergency procedures. Students will learn pilot and aircraft qualifications, cross-country flight planning, weight and balance, performance and limitations, human factors, chart use, night operations, navigation systems, and aeronautical decision making. Students will be provided with the opportunity to participate in multiple practice examinations. At the end of this course, students may have the opportunity to be signed off to take the Federal Aviation Administration's Private Pilot written exam.

## Educational Programs

Des Moines Public Schools provides students with more options to meet their educational needs and interests than any place in Iowa. Through programs like Central Campus and Central Academy and the English Language Learners Program, the school district provides educational programming as diverse as the people who learn and live in our community.

### Central Campus

Central Campus complements and extends the programs of Central Iowa Schools, offering unique academic and career opportunities that direct, inspire, and motivate a diverse group of students.

Central Campus serves as a Career Center within the Des Moines Public Schools where students can explore and specialize in career pathways. We specialize in work-based learning and ensuring our students gain access to their career fields prior to graduation. Students completing a Career and Technical program will earn industry recognized certifications, meet and interview with employers, and have access to both unpaid and paid internship/apprenticeship opportunities with local businesses and employers. With academic planning and support in high school, students have the opportunity to earn community college credit and two-year Associates Degree at no extra cost.

Campus offers hands-on, real-world work-based educational programs to a highly diverse community and surrounding areas. One of our greatest strengths is the friendships and networking of students from diverse backgrounds and communities. Central Campus commits itself to providing equal access and prospects through rigorous academic and career training experiences for all.

Requests for Central Campus courses begin with inquiries made through your home high school counselor. You are also welcome to call Central Campus at 515-242-8117. Central Campus is open to all qualifying high school students regardless of home district. Students wishing to request a program at Central Campus need to find the course request document at <https://centralcampus.dmschools.org/enrollment/>. Out of district students will also need to reference the course request document just mentioned to make their course requests as it is a different process than what DMPS students follow.

For additional information about Central Campus, please talk with your school counselor and visit <http://centralcampus.dmschools.org>

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# Central Academy

Central Academy provides additional services for students in comprehensive schools by offering Accelerated and Compacted Core courses and unique Advanced Placement & World Language courses.

Our Accelerated Core Pathway fosters academic excellence through the challenge of compacted curricula by offering acceleration and enrichment for students who demonstrate early readiness for advanced work. Students, especially those under-represented in gifted programs, develop competence, connection, and confidence as they embrace challenging coursework.

Central Academy is listed in the top 1% of educational programs nationally, as recognized by the College Board. Students who successfully complete the program are prepared for the competitive demands of top colleges and universities.

**Identification for 8th Grade Academy:** The 8th Grade Academy program is designed for students who are academically prepared to accelerate their learning by one grade in three subjects. Students are evaluated according to a comprehensive set of criteria to ensure they are prepared for three rigorous, accelerated classes. These criteria include:

- Performance on standardized assessments (Iowa Assessments) in reading, mathematics, and science
- Grades in core subject areas
- Placement in mathematics
- Teacher recommendation

Students in the 8th Grade Academy take three accelerated academic courses, most of them at the high school level. All students must take English. Additionally, students choose two more subjects among mathematics, science, and social sciences. For high school coursework, 8th graders have the option of including their grades in their high school grade point average or not. Course options for 8th grade students are:

- English: Accelerated Language and Literature I (awarded high school credit in English I).
- Mathematics\*: Academy Math 8 (Accelerated version of the Middle school course), Academy Algebra I, Academy Geometry, Radically Accelerated I. A placement exam is given to determine course placement beyond Academy Math 8.
- Science: Conceptual Physics & Environmental Science (one semester of each high school class will prepare students for Accelerated Chemistry and Accelerated Biology in 9th grade)
- Social Studies: Accelerated Early US History and Government (awarded high school social studies credit).

## What if a student does not attend academy in 8th grade?

Interesting Fact: 38% of current 10th grade students in the Academy's Accelerated Core Pathway did not attend as 8th graders. Children mature and develop at different rates. Some students need an extra year at a normal pace to hone skills and develop talents so that they are genuinely ready to accelerate. Putting a student in an accelerated class too soon can damage the student's skill development and growth. The middle school intervention teams and the Academy Intervention team work collaboratively to carefully consider students individually for placement in this program designed for students who are discrepant from their peers. Not attending Academy in 8th grade does not rule out the option to attend later.

For additional information about Central Academy, please talk with your school counselor and visit <http://ca.dmschools.org>

For Central Academy course offerings, please visit <https://ca.dmschools.org/course-offerings/>

## Advanced Placement at Central Academy

Central Academy is consistently ranked as a top Advanced Placement program by the Belin-Blank Center at the University of Iowa. AP course offerings at Central Academy include the AP Capstone Program with Seminar and Research, English Language and Composition (Col Acc Eng Lang), English Literature and Composition (Col Acc Eng Lit), Calculus at the AB and BC levels, Statistics, Computer Science A, Chemistry, Physics 1, 2 and C, Human Geography (Acc AP Human Geo & History), US History (College AP US History), European History, World History, Macroeconomics, Comparative Government & Politics, Chinese Language and Culture, French Language and Culture, German Language and Culture, Italian Language and Culture, Japanese Language and Culture, and Spanish Language and Culture.

# Course Offerings at Central Academy

<b>Electives</b>	MIS433/434	*AP Research	<b>Science</b>	SCI201	Environmental Science	
	TEC453A/454A	Computer Science II		SCI205A	Conceptual Physics SI	
	TEC557A/558A	*AP Computer Science A		SCI352A	Accelerated Chemistry	
<b>English</b>	LA251A/252A	Acc Lang & Lit I		SCI357A	Accelerated Biology	
	LA413A/414A	Acc Lang & Lit II		SCI505/506	*AP Chemistry	
	LA451A/452A	Acc Lang & Lit III		SCI525A/526A	*AP Physics 1	
	LA453A	*Acc Lang & Lit Capstone HUM116 DMACC HUM 116, Encounters in Humanities, 3 credits		SCI527A/528A	*AP Physics 2	
	LA454A	*Acc Lang & Lit Capstone LIT209 DMACC LIT 209, Literature Film Adaptation, 3 credits		SCI529/530	*AP Physics C	
	LA529A	*Col Acc Eng Lit & Comp DMACC LIT 101, Intro to Literature, 3 credits		<b>Social Studies</b>	SOC101A	Acc Early US History
	LA530A	*Col Acc Eng Lit & Comp DMACC LIT 185, Contemporary Literature, 3 credits			SOC213	*Accel AP Human Geo & Hist
	LA531A	*Col Acc Eng Lang & Comp DMACC ENG 105, Composition I, 3 credits	SOC214		*Accel AP Human Geo & Hist	
	LA532A	*Col Acc Eng Lang & Comp DMACC ENG 106, Composition II, 3 credits	SOC363		Intersectional Feminism	
<b>Mathematics</b>	MTH111A/112A	Academy Algebra I	SOC405A		Government	
	MTH155A/156A	Rad Acc Alg I/Geom A	SOC431/432		*AP Seminar: Social Science	
	MTH211A/212A	Academy Geometry	SOC509		*AP World History SI	
	MTH311A/312A	Academy Algebra II	SOC511A		*AP Macroeconomics	
	MTH401A/402A	*AP Academy Pre-Calculus	SOC516A		*College AP World History S2 DMACC GLS 235, Intro to International Studies, 3 credits	
	MTH407/408	Adv Math Problem Solving	SOC521A		*College AP US History DMACC HIS 151, U.S. History to 1877, 3 credits	
	MTH451A/452A	Rad Acc Alg IIA and B	SOC522A	*College AP US History DMACC HIS 152, U.S. History since 1877, 3 credits		
	MTH453A	*AP Rad Acc Precalc A	SOC523A	*College AP European History		
	MTH454A	*AP Rad Acc Precalc B	SOC524A	*College AP European History DMACC HIS 111, Western Civilization: Early, 3 credits		
	MTH501A	*AP Calculus AB	SOC531A	College Middle East & Islam		
	MTH502A	*AP Calculus AB DMACC MAT 211, Calculus I, 5 credits	SOC532A	*College Middle East & Islam DMACC GLS 220, The Middle East and Islam, 3 credits		
	MTH503A	*AP Calculus BC	SOC533A	College Latin American History		
	MTH504A	*AP Calculus BC DMACC MAT 217, Calculus II, 5 credits	SOC534A	*College Latin American History DMACC GLS 230, Latin America, 3 credits		
	MTH551A/552A	*AP Statistics	SOC557A	*AP Comparative Gov		

<b>Visual Arts</b>	ART355A/356A	Beginning Throwing (1.0 cr)		SOC563A	Col African American Studies S1
	ART357A/358A	Intermediate Throwing (1.0cr)		SOC564A	*Col African American Studies S2 DMACC HIS 257, African-American History, 3 credits
	ART455A/456A	Advanced Throwing (1.0 cr) (repeatable)	<b>Physical Education</b>	PHY107SPO	Creative Contemporary Movement (workshop – not class)

<b>World Languages: Arabic</b>	WL181/182	Arabic I S1/S2	<b>World Languages: Italian</b>	WL151	Italian I S1	
	WL281/282	Arabic II S1/S2		WL152	*Italian I S2 DMACC FLI 141, Elementary Italian I, 4 credits	
	WL381/382	Arabic III S1/S2		WL251	Italian II S1	
	WL481/482	Arabic IV S1/S2		WL252	*Italian II S2 DMACC FLI 142, Elementary Italian II, 4 credits	
<b>World Languages: Chinese</b>	WL131/132	Chinese I S1/S2		WL351	Italian III S1	
	WL231/232	Chinese II S1/S2		WL352	*Italian III S2 DMACC FLI 241, Intermediate Italian I, 4 credits	
	WL331/332	Chinese III S1/S2		WL557	*AP Italian IV S1	
	WL531/532	*AP Chinese IV S1/S2		WL558	*AP Italian IV S2 DMACC FLI 242, Intermediate Italian II, 4 credits	
<b>World Languages: French</b>	WL103	French I S1		<b>World Languages: Japanese</b>	WL161	Japanese I S1
	WL104	*French I S2 DMACC FLF 151, Elementary French I, 5 credits			WL162	*Japanese I S2 DMACC FLJ 141, Elementary Japanese I, 4 credits
	WL203	French II S1			WL261	Japanese II S1
	WL204	*French II S2 DMACC FLF 152, Elementary French II, 5 credits			WL262	*Japanese II S2 DMACC FLJ 142, Elementary Japanese II, 4 credits
	WL303	French III S1	WL361		Japanese III S1	
	WL304	*French III S2 DMACC FLF 241, Intermediate French I, 4 credits	WL362		*Japanese III S2 DMACC FLJ 241, Intermediate Japanese I, 4 credits	
	WL503	*AP French IV S1	WL545		*AP Japanese IV S1	
	WL504	*AP French IV S2 DMACC FLF 242, Intermediate French II, 4 credits	WL546		*AP Japanese IV S2 DMACC FLJ 242, Intermediate Japanese II, 4 credits	
<b>World Languages: German</b>	WL141	German I S1	<b>World Languages: Spanish</b>		WL391	Medical Span Interpretations
	WL142	German I S2			WL392	Medical Span Interpretations Grand View TBD
	WL241	German II S1		WL515	*AP Spanish IV S1	
	WL242	German II S2		WL516	*AP Spanish IV S2	
	WL341	German III S1		WL571	*College Spanish V DMACC FLS 241, Intermediate Spanish I, 4 credits	
	WL342	German III S2		WL572	*College Spanish V DMACC FL2 242, Intermediate Spanish II, 4 credits	
	WL547	*AP German IV S1				
	WL548	*AP German IV S2				

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# English Language Learners Program

The English Learner (EL) Program offers courses to both newly arrived immigrant students whose first language is not English, and to Long Term ELL Learners. Students are placed in courses according to their English language proficiency levels and length of time in the U.S. The unique needs of English Learners are met by the instructional methods and materials designed to increase English proficiency in listening, speaking, reading, writing, and academic language.

Goals for the district's English Language Learner Program curriculum include:

- To teach the critical language, knowledge about language, and skills using language that are in college and career ready standards and that are necessary for English language learners to be successful in schools
- To teach language functions (what students can do with language to accomplish content-specific tasks) and language forms (vocabulary, grammar, and discourse) which are needed by ELLs as they develop competence in the practices associated with English language arts & literacy and other content areas
- To recognize students' diverse ethnic and cultural backgrounds and experiences
- To develop social and academic language in the context of real experiences

## Curriculum Coordinator

Noemi Mendez

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High School ELL Language Instruction Education Program (LIEP) - Placement of English language learners into the correct courses can be determined by several data points such as the length of time students have been in the U.S. and the results from the ELPA-21 Screener for newly identified students or the annual ELPA-21 in all domain scores. Students in the intensive program should expect to remain in school for 2-3 years minimum, despite grade level. The LAU and LIEPs are to be used to guide schools in placing students in the appropriate courses. In some instances, it will be necessary to consider other factors such as Iowa Assessment scores, level of success in previous ELL and/or core courses, and teacher recommendation.

## ELA Foundations I (MIS911/912)

**PREREQUISITE:** Appropriate English Language Proficiency | **Offered:** Yearlong Course | **1.0 Elective Credit/Semester**

This course focuses on integrating reading skills, writing skills, and vocabulary building from study of narrative and informational oral or written text. This course includes teaching of foundational reading and writing skills. Students in this course are primarily Beginning Level students. This course receives Elective credit. This course is repeatable. Enrollment is concurrent with ELD I. Lexiles 170 and below.

## ELA Foundations II (LA913/914)

**PREREQUISITE:** Appropriate English Language Proficiency | **Offered:** Yearlong Course | **1.0 English Credit/Semester**

This course focuses on consolidating many of the beginning skills through extended practice and instruction as students gain the new skills that are presented at this level. Instruction emphasizes interpersonal communication and academic skills. Students in this course are primarily Beginning Level students. This course receives English credit. This is concurrent enrollment in ELD II. Lexiles 170-415.

## Eng Lang Development I (MIS921/922)

**PREREQUISITE:** NONE | **Offered:** Yearlong Course | **.5 Elective Credit/Semester**

This is a beginning course for newly arrived students who have not previously studied English or who have very Basic English skills. Students in this course are primarily Beginning Level students. This course includes vocabulary and language structures with an emphasis on communicative competence. This course receives elective credit and enrollment is concurrent with ELA Foundations I. This course is repeatable. Lexiles 170 and below.

### **Eng Lang Development II (MIS933/934)**

PREREQUISITE: Appropriate English Language Proficiency | Offered: Yearlong Course | .5 Elective Credit/Semester

This course extends the basic skills of ELD I in listening comprehension, speaking/oral communications, reading and writing. Students in this course are primarily Beginning Level students. This is a course for students who have completed ELD I coursework, have studied English approximately one year before entering U.S. schools, and /or who test at this level of proficiency. This course receives elective credit. Enrollment is concurrent in ELA Foundations II. Lexiles 170-415.

### **Eng Lang Development III (LA923/924)**

PREREQUISITE: Appropriate English Language Proficiency | Offered: Yearlong Course | .5 English Credit/Semester

This course continues to extend the basic skill of ELD 2 listening comprehension, speaking/oral communication, reading and writing. Students in this course are primarily Early Intermediate students. This course is for students who have successfully completed ELD 2 coursework, have studied English approximately two years before entering U.S. schools, and/or who test at this level. This course receives English credit. This course can be concurrent enrollment with ELL English I, or English I. Lexiles 415-635.

### **Eng Lang Development IV (LA925/926)**

PREREQUISITE: Appropriate English Language Proficiency | Offered: Yearlong Course | .5 English Credit/Semester

The focus of this course is on the enhancement of students' listening, speaking, reading, and writing skills in English through the study of both narrative and informational written and oral text. Students in this course are primarily Intermediate Level students. This course receives English credit. There is a concurrent enrollment in an English class. Lexiles 635-770.

### **ELL Math Foundations I (MTH923/924)**

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Math Credit/Semester

This course is for Newcomer or Beginner English Language Learner students. It has a dual focus of building foundational content knowledge and the ability to use academic language in Mathematics.

### **ELL Math Foundations II (MTH925/926)**

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Math Credit/Semester

This course is for Newcomer or Beginner English Language Learner students. It has a dual focus of building foundational content knowledge, pre-algebra concepts, and the ability to use academic language in Mathematics in the English language.

### **ELL Language of Science (AD) (MIS941/942)**

PREREQUISITE: NONE | Offered: Yearlong Course | .5 Elective Credit/Semester

This course is for English Language Learner (ELL) students only. It has a dual focus of building foundational content knowledge and the ability to use academic language in Science.

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