

# Program of Study 2024/2025



# Table of Contents

Welcome	3
Mission	4/5
Graduation Requirements	6/7
Pathway Clusters	8
4-Year Plan	9
School of Agri-Science	10
Horticulture	11
Animal Science	11
School of Business	12
Finance & Banking	13
Marketing Management	13
School of Visual & Performing Arts	14
Visual Arts	15
Vocal	16
Instrumental	16
Social Services	18
Allied Health	19
Certified Nursing Assistant	19
School of Technical Education	22
Construction & Manufacturing	23
Engineering	23
Information Technology	24
Core Classes	26
English Language Arts	27
Mathematics	28
Social Studies	29
Science	30/31
World Language	32/33
Health/Driver's Ed/Physical Education	34
Agri-science	35/36
Business	37/38
Visual & Performing Arts	39/40
Social Services	42/43
Technical Education	45/46
Education & Training	47
Electives	48/49
Schedule Worksheet	51
Notes	52/53/54







# Welcome to IR

Indian River High School offers a rigorous educational program for all students who choose to attend our learning institution. This handbook is designed to provide you with a comprehensive overview of the educational opportunities available.

John F. Kennedy once said, “Our progress as a nation can be no swifter than our progress in education. The human mind is our fundamental resource.” That is perhaps more true today than ever before. In order for our young people to compete in the global marketplace they must receive a superior education. That is our primary mission at Indian River High School.

Indian River High School is proud of the many established programs that have been developed to assist students in the learning process. These programs are tailored to meet the needs of our unique student population. Indian River High School has a rich tradition of preparing students academically for their post-secondary goals. Our College Preparatory program is designed to provide a rigorous course of study in the major content areas. Students also have the opportunity to enroll in Honors/Advanced Placement courses in the areas of English, United States History, Biology, Chemistry, Statistics, Calculus, Spanish, Computer Science, and Environmental Science. Indian River High School has also developed a partnership with Delaware Technical Community College which allows students to participate in dual enrollment courses. Successful completion of these courses may result in transferable college credits at an institution of higher learning. Indian River students who participate in academic extracurricular programs regularly rank among the top 5% in the state. Common Quarterly Assessments are administered in the areas of English, Math, Social Studies, and Science. Data obtained from these assessments is used to implement dynamic programs that best meet our students’ needs. Our carefully selected staff is dedicated to providing the optimal pedagogical strategies and learning environment that enable students to reach their fullest potential.

The elective programs at Indian River High School offer students a variety of exploratory options. Our pathway programs allow each student to select an elective area of study. The elective pathways offered can be found in this handbook and are designed to give students a wide selection of training opportunities based on the occupational needs of our community. Successful pathway completion can result in college credits and/or appropriate career certifications.

The staff and administration at Indian River High School are proud of the fact that the majority of our students attend a post secondary institution upon graduation. Our program has a proven track record of preparing students to meet their educational objectives.

Please contact the Indian River High School Counseling Department if you have questions regarding information found in this handbook. (302) 732-1500

The Indian River School District is an equal opportunity employer and does not discriminate or deny services on the basis of race, color, national origin, gender, disability and/or age. The following individuals serve as district Coordinators and can be contacted at the following address:

Indian River Educational Complex,  
31 Hoosier Street, Selbyville, DE 19975  
District 504 Coordinator Dr. Renee Jerns 302-436-1000  
ADA Coordinator Joe Booth 302-436-1000  
Title IX Coordinator Dr. Jay Owens 302-436-1000  
IRHS 504 Coordinator Dr. Robert Syphard 302-732-1500  
IRHS Title IX Coordinator Mr. Michael Williams 302-732-1500





# Indian River High

*Indian River High School will provide a safe environment for academic excellence while fostering critical thinking skills that maximize individual potential and enable students to tackle the challenges of our dynamic global society.*

## Statement of Philosophy

We are committed to a program of quality education. It is our belief that the education of the student requires the acquisition of knowledge and the development of mental and moral attitudes which encourage students to strive towards their fullest potential. It is our goal that students find maximum satisfaction in life, and function as useful, contributing citizens of our democratic society.

We believe that it is a function of Indian River High School to provide, within the capabilities of available resources, a program for each student that is rich in academics and engenders a positive concept of self.

We believe that an exceptional education can be acquired only through determination, and the only acceptable ideal of education is that which seeks the optimal academic development of every individual. While we understand that achievement will vary, we insist upon effort and strive for the maximum level of success for our students.

We believe in coeducational secondary schools and that such schools, when open to a varied distribution of interests and abilities, are both educationally and socially sound. We believe in familiarizing students with the cultural achievements of civilization including art, linguistics, literature, mathematics and music. We encourage the widest participation by all students in their performance or creation.

We believe schools should reflect the needs of the community of which they are a part. We encourage collaboration and partnerships between our educational institution and the greater community at large.

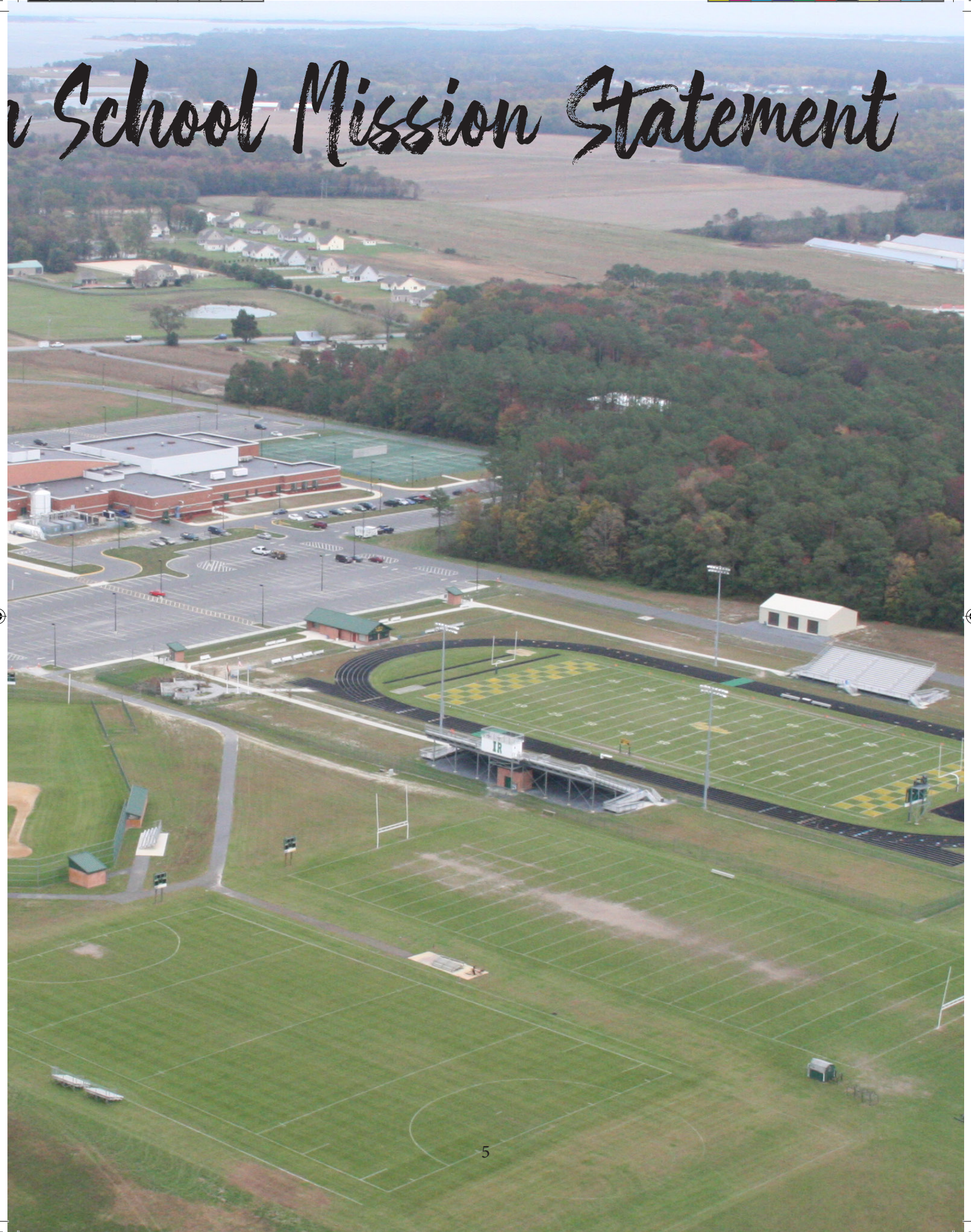
It is our belief that both competition and cooperation are essentials to a successful society. We seek to encourage both. Whether students are recognized for school service or citizenship, athletic prowess or scholastic attainment, we consider the recognition of excellence both useful and democratic.







# *Our School Mission Statement*





# Graduation Requirements

Indian River High School is committed to providing a quality educational program for all students. Our core subject areas provide rigorous preparation for the Delaware System of Student Assessments (DeSSA), Preliminary Scholastic Aptitude Test (PSAT), Scholastic Aptitude Test (SAT), and post secondary higher educational institutions. IRHS technical programs provide a high level of “hands-on” activities for students using modern technology and innovative ideas.

The information below indicates the coursework required for a student to graduate successfully from Indian River High School:

English	4 credits
Math	4 credits
Social Studies	3 credits
Science	3 credits
World Language	2 credits
Physical Education	1 credit
Health	0.5 credits
Career Pathways	3 credits
Related Coursework	4 credits
<b>Total Credits</b>	<b>24.5 credits</b>









# Pathway Clusters

Per state mandate all students must graduate with three credits in a major program of study. Indian River High School has organized our pathway programs into areas called “Clusters”. Students may select a major program of study in one of the seven cluster areas listed below. Each program major requires students to successfully complete 3 sequential courses. These courses have been placed in a level sequence or as we refer to as a “dot” sequence. In the pages to follow you will see the course sequence for each program major.

AG  
BU  
VPA  
SS  
TE  
EDU

## **Agriculture Cluster**

Animal Science Major  
Plant Science Major

## **Business Cluster**

Finance & Banking Major  
Marketing Management Major

## **Visual/Performing Arts Cluster**

Visual Arts Major  
Performing Arts Major

## **Social Service Cluster**

Allied Health Major  
Certified Nursing Assistant Major

## **Technology Education**

Construction & Manufacturing  
Principles of Engineering  
Communication Technology  
Computer Science

## **Education Major**

Teacher Academy



# Sample Academic Plan

All incoming Freshmen collaborate with their school counselors to construct a 4-year academic plan that serves as a guide for the student's high school career. This guide is considered a "working plan" since it can be restructured at different times. This working plan provides students with the opportunity to set personal goals and develop strategies to achieve them. The following table provides a sample 4-year plan. Each class, unless indicated, is worth one credit.

9	English 9 Mathematics 9 Civics Physical Science Health - 0.5 credit Physical Education - 0.5 credit World Language/Related Pathway Course Elective Course <b>Total 8</b>
10	English 10 Mathematics 10 World History Biology Driver's Education - 0.25credit Physical Education - 0.75credit World Language/Related Pathway Course Elective Course <b>Total 8</b>
11	English 11 Mathematics 11 United States History Chemistry World Language/Related Pathway Course Elective Course Elective Course <b>Total 8</b>
12	English 12 Mathematics 12 Pathway Course World Language/Related Elective Course Elective Course Elective Course Elective Course <b>Total 8</b>



# School of Agri-Science

## Program Description

The Indian River High School Agriculture department has developed a program that offers students a wide-range of opportunities. The department consists of two major areas of study: (1) Animal Science, (2) Plant Science. Each major program has been designed to offer students hands-on activities to enhance their understanding of agricultural sciences. Students will have the opportunity to work in the outdoor classroom area that contains a 74' by 40' trout pond, as well as a 30' by 30' Aquaculture laboratory. The on-campus greenhouse is 96' by 30' and grows various types of crops all year long.

Students majoring in Agricultural Sciences are urged to join our FFA chapter. Students involved in the FFA will develop leadership skills and learn how to be part of a problem-solving team. The FFA is very active within the school and community. Students in this program may compete at the local, state, and national levels in many career development activities such as: agriculture sales, livestock judging, and landscaping. Students gain excellent hands-on experience in these and other areas.



## Program Majors

### Animal Science Major

Animal Science I  
Animal Science II  
Animal Science III  
Animal Science IV

### Horticulture Major

Horticulture Science I  
Horticulture Science II  
Horticulture Science III  
Horticulture Science IV



## Program Accomplishments

- Aquatic labs have been completed with the addition of advanced aquaculture equipment needed to raise fish.
- Horticulture II and III students participate in the landscape design of IRHS grounds.
- The Indian River FFA Greenhouse produces a myriad of plants throughout the year.
- IR AgriScience Department was voted the best in the state 2014 by the Delaware Association of AgriScience Educators.
- Mrs. Jennifer Cordrey was voted 2015 Teacher of the Year for the Indian River School District.



# Animal Science Major

## Future Careers

- Veterinarian
- Laboratory Assistant
- Veterinary Tech
- Agriculture Engineer
- Wildlife Biologist
- Agriculture Sales
- Agriculture Teacher
- Ag Extension Agent
- Communication Specialist
- Animal Research

*"When choosing classes freshman year, I decided to enroll in Animal Science. In each level I have had hands-on experience with many different kinds of animals. Through this pathway I have developed various skills that will help me in my future career in agriculture. I joined the FFA which has taught me leadership skills and broadened my communication skills. As President (2019-2020) of our school chapter I have received many opportunities that have augmented my future opportunities within my scholastic career and community*

*~ Nicole Smith*



# Horticulture Major

## Future Careers

- Geneticist
- Soil and Water Specialist
- Tree Surgeon
- Greenhouse Manager
- Forestry
- Crop Advisor
- Extension Agent
- Golf Course Greens Keeper
- Farming

*"The horticulture pathway offers a variety of educational experiences. Not only do we work in the classroom, most of the learning is hands on. As a class, we have the opportunity to go outdoors and work in the greenhouse with a multitude of plants. The best part of the pathway is when we get to design and implement landscape beds around the school. It is enjoyable watching the areas develop into beautiful landscapes full of vibrant color."*

*~ Deana Wilkerson, Ciara Blaser and Peter Blaser*





# School of Business

## Program Description

The finance and marketing pathways are designed for students who will be utilizing learned skills immediately in the workforce and for those students who will pursue like studies at the collegiate level. Marketing majors will begin their pathway by taking the Essentials of Business, Finance, and Marketing class. Finance majors will begin their pathway by taking the Introduction to Finance class.

The finance pathway connects students with the skills required for careers in financial services through coursework that develops competencies in personal finance, accounting, and banking. Students have the opportunity to extend learning by earning industry-recognized certifications through Precision Exams, Certiport, and EverFi. Students are also eligible to engage in experiential learning through internships and the Del-One FCU partnership.

The marketing management pathway will prepare students to organize, design, and interpret consumer information for the global marketplace.

Students will also gain the basic understanding of owning & operating their own business, as well as expose them to the Hospitality & Tourism Industry.

All business students will be eligible to join Business Professionals of America to enhance their leadership and business skills.



## Program Majors

### Finance & Banking

- Introduction to Finance
- Accounting Essentials
- Finance and Banking
- Internship/Experiential Learning

### Marketing

- Essentials of Business, Finance, and Marketing
- Marketing Management II
- Marketing Management III
- Marketing Management IV



## Program Accomplishments

- IR BPA members have placed 1st and 6th nationally in Presentation Management, 3rd nationally in Entrepreneurship, and 4th nationally in Legal Office Procedures.
- IR BPA had 13 members qualify for the 2019 National Leadership Conference.
- BPA members spend many hours volunteering and collaborating with local business organizations to gain real world experience.
- The School of Business is proud to partner with local organizations including Del-One FCU, the Bank of Ocean City, and Chick-Fil-A to extend student learning beyond the classroom.

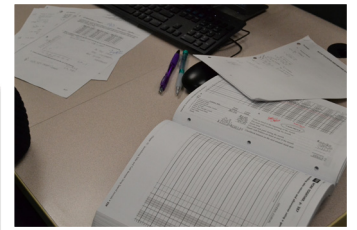
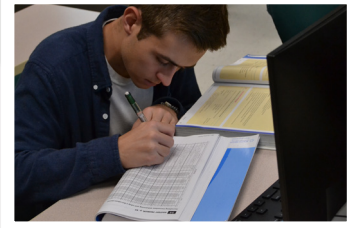
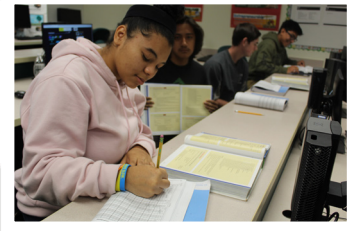


# Finance & Banking Major

## Future Careers

- Financial Consultant
- Financial Analyst
- Finance Manager
- Financial Planner
- Commercial Banking
- Corporate Finance
- Investment Banking
- Insurance Industry
- Real Estate

*"I believe that all students and adolescents should be exposed to the Business pathway and BPA. I have learned essential business skills and am much more comfortable with public speaking"*  
- Lanaya Haynes

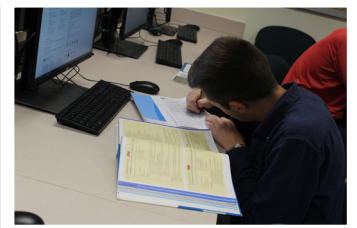
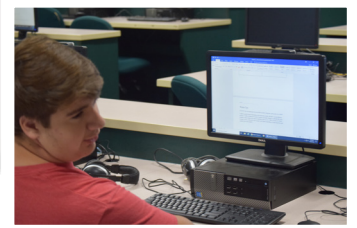


# Marketing Management Major

## Future Careers

- Entrepreneur
- Small Business Owner
- Chief Executive Officer
- Sales Executive
- Retail Sales Specialists
- Sales Representative
- Merchandise Buyer
- Store Manager
- Operations Manager
- Restaurant Manager
- Hotel/Resort Manager
- Guest Services

*"What you learn in class, you will use in life, no matter if you go into the business world or not"* - Misty Hickman







# School of Visual & Performing Arts

## Program Description

The visual arts major is designed to help students focus on the necessary skills needed to create art for aesthetic and commercial purposes. IRHS has produced a number of talented students who have successfully shown at local exhibits and contests. Several are currently studying art at the postsecondary level. This program not only exposes students to the development of beautiful artwork, but also fosters a lifelong appreciation for visual artistry.

Another concentration within the Indian River arts program is the Performing Arts Pathway. There are two major performing groups; the Indian River High School Band and the Indian River High School Choir. Each group has many smaller ensembles such as a jazz band, and an a cappella group. Many of the students from the band and choir have been accepted to the county ensemble, the state ensemble, and even groups as high as All National Ensembles. The marching unit is an integral part of the community as it performs at all the football games and many of the local parades. Each year the band and choir travel within the United States to perform publicly.

The Communication Arts Major focuses on preparing today's students for tomorrow's world and a technological-based job market. Students in this pathway use current industry-standard equipment found in professional design studios. In a partnership with leading software developer Adobe, our students will use the Adobe Creative Suite to create, modify, and produce portfolio-ready art. Students that complete this pathway will be ready to take their skills to the next level in either a post-secondary setting or job market. Themes and concepts present throughout the program include: Graphic Design, Advertising, Photography, Typography, Layout, Color Theory, Digital Design, Photo Manipulation, and Professionalism.

## Program Majors

### Visual Arts

- Design Fundamentals
- Drawing and Printmaking/Ceramics
- Painting/Portfolio
- Advanced Portfolio

### Performing Arts

- |                    |                     |
|--------------------|---------------------|
| - Concert Band I   | - Concert Choir I   |
| - Concert Band II  | - Concert Choir II  |
| - Concert Band III | - Concert Choir III |
| - Concert Band IV  | - Concert Choir IV  |

*Being involved in the music department has been the greatest experience of my life. I've met so many great individuals who have the same drive as me, and create a lovely and productive work environment. Throughout the years, I've learned many instruments and had amazing peers along with teachers who make the experience that much greater. Indian River's band and choir are top tier, no doubt.*

*- Gus Fadden*



# Visual Arts Major

- Art Teacher
- Computer Artist
- Curator
- Interior Designer
- Set Designer
- Gallery Owner
- Art Preservationist
- Sculptor



## Program Accomplishments

- A number of students were accepted and are attending the Delaware College of Art and Design.
- Five students received regional "Gold Key" awards in the Scholastic Art & Writing Awards Ceremony. One work went on for national adjudication. A "Silver Key" and several certificates of merit were also presented.
- First place at Rehoboth Art League's "Young at Art" exhibition.
- Designed the new logo for Friends of the South Coastal Library organization in Bethany Beach.
- Showed at the Selbyville Library's "Kid's Art Month".





# Vocal Major

## Extracurriculars

- Acapella Group

## Future Careers

- Musician
- Voice Instructor
- Music Theatre
- Conductor
- Music Teacher

*Being in band and choir has been a true learning experience, I have not only improved musically but I also have become so dedicated to the music program. Being in band and choir has honestly made coming to school worth it and going to IR worth it.*

*- Kassidy Franklin*



# Program Accomplishments

- Select members of the chorus participate in the Pennsylvania Renaissance Fair Competition.
- Concert band and acappella group are adjudicated each year giving our students the opportunity to visit places such as Orlando, Florida, Gatlinburg, Tennessee, and other locations.
- Indian River sends students to participate in Sussex County Honor Choir and All-State Chorus each year.
- The choral students are invited to participate in the Spring Musical performance each year.
- Students have been selected for the All-Eastern Chorus program.



# Instrumental Major

## Extracurriculars

- Jazz Band
- Clarinet Choir
- Brass Choir
- Baroque Ensemble
- Percussion Ensemble

## Future Careers

- Musician
- Instrumentalist
- Sound Technician
- Conductor
- Music Teacher

*Being in band and choir has been the highlight of high school so far. I love to sing and play my instrument, and being in ensembles with people who share my passion for music is so much fun. I might want to be a music education major in college, so learning advanced techniques and observing how my teachers engage us interests me greatly! Band and choir have such a family atmosphere and anyone is accepted!*

*- Abby Wilson*



# Program Accomplishments

- The marching unit has performed in parades in Selbyville, Millsboro, and Dagsboro, at each football game, and performed at the Bands at the Beach Marching Festival.
- The jazz band has performed in the Blues at the Beach Festival in Rehoboth.
- The program's "IR Live!" Production puts on an annual stage performance.
- The band has performed in the Disney Main Street Parade, in Orlando, Florida; at Dollywood in Pigeon Forge, Tennessee; at Busch Gardens in Williamsburg, Virginia, and in Cleveland, Ohio.
- The band has had numerous students accepted to both the Sussex County Band and the Delaware All-State Honors Band.









# School of Social Services

## Program Description

The Indian River High School Social Services Cluster consists of a Allied Health program, Certified Nursing Assistant program.

Students acquire the skills needed to work with individuals, groups, and communities. They learn to collaborate with people of diverse backgrounds and serve communities at the local, state, and national levels. The program expectations enable students to prepare for higher academic institutions and potential employment.

The Allied Health program engages students in open-ended problem solving where they study topics such as medical terminology and human anatomy and physiology. Students will acquire important skills necessary for healthcare professionals such as medical mathematics, communication, safety practices, legal responsibilities, and teamwork. In addition, students will develop technical skills such as performing a wound culture, measuring vital signs, collecting a throat culture, and performing a strep test. This program prepares students for a variety of careers in healthcare such as respiratory therapist, nurse, physical therapist, dental hygienist, and medical lab technician.

## Program Majors

### Allied Health Major

- Intro to Medicine
- Fundamentals of Health Science
- Essentials of Health Careers
- DTCC Anatomy & Physiology I

### Certified Nursing Assistant Major

- Intro to Medicine
- Fundamentals of Health Science
- Anatomy & Physiology
- Certified Nurse Assisting





# Allied Health Major

## Future Careers

- Medical Lab Technician
- Registered Nurse
- Respiratory Therapist
- Physical Therapist
- Radiology Technician
- Dental Hygienist
- Surgical Technician
- Physician Assistant

The Allied Health program engages students in open-ended problem solving where they study topics such as medical terminology and human anatomy and physiology. Students will acquire important skills necessary for health-care professionals such as medical mathematics, communication, safety practices, legal responsibilities, and teamwork. In addition, students will develop technical skills such as performing a wound culture, measuring vital signs, collecting a throat culture, and performing a strep test. This program prepares students for a variety of careers in healthcare such as respiratory therapist, nurse, physical therapist, dental hygienist, and medical lab technician.



## Program Accomplishments

- The IRHS Health Professions program became the first in the state to join the HOSA organization.
- The IRHS HOSA chapter is active in state and national competitions and events.
- Students will be eligible to take the National Consortium Health Science Education Assessment during their junior or senior year.
- First Aid and CPR Certification
- Students will have the opportunity to earn 5 dual enrollment credits and 4 articulated credits at Del-Tech.



# Certified Nursing Assistant Major

## Future Careers

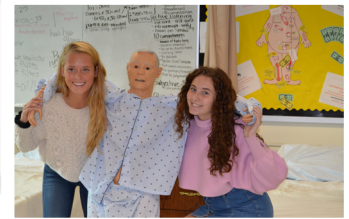
- Certified Nurse Assistant
- Dialysis Technician
- Patient Care Technician
- License Practical Nurse
- Resident Care Provider
- Registered Nurse
- Nurse Practitioner
- Nurse Anesthetist

*"Being a student in the CNA Pathway has introduced me to different careers in the health care field. This pathway has introduced me to nursing, physical therapy, medical office assistant, and dental and nursing assistant. I have been able to practice clinical skills in our simulated lab at school and in the community at Cadbury Assisted Living. Being a student in this pathway has allowed me to grow as an individual, improve as a student, and gain valuable real world experience."*

*~ Tallie Callahan*

## Program Accomplishments

- The IRHS Health Professions program became the first in the state to join the HOSA organization.
- The IRHS HOSA chapter is active in state and national competitions and events.
- Upon successful completion of the pathway, students will be eligible to take the National Consortium Health Science Education Assessment and the Prometrics Delaware Nurse Aide Certification Exam.
- First Aid and CPR Certification
- Students will have the opportunity to earn up to 13 articulated credits through Del-Tech.













# School of Technical Education

## Program Description

The Technology Education Department strives to acquaint the student with materials and equipment as they relate to design and construction. Students then acquire the skills and dexterity necessary for their utilization. This program will provide the critical thinking skills needed to address challenges that may be encountered in industry or further training. The pathway is for those students interested in careers related to civil, computer, and mechanical engineering, contracting, surveying, drafting, and the construction trades.

Indian River High School has partnered with Project Lead the Way to offer a Pathway to the Engineering program. To help prepare all students for the global workforce, the College Board and Project Lead The Way (PLTW) have partnered on a program to encourage student participation in science, technology, engineering, and math (STEM) courses and build their interest in STEM degrees and careers. The program leverages the success of the College Board's Advanced Placement Program (AP) and Project Lead The Way's applied learning programs. The Pathway to Engineering program (PTE) consists of a sequence of courses which follow a proven, hands-on approach to technological learning.

PTE high school students have historically achieved higher scores in mathematics, science, and reading and earned higher G.P.A.'s as college freshmen. PTE alumni are studying engineering and technology in greater numbers than the national average and boast higher retention rates in college engineering, science, and related programs than their non-PTE peers. PTE will be entering an articulation agreement with colleges and universities that allows students in the program to earn advanced college credits.



### Program Majors

#### Construction & Manufacturing

- Construction & Manufacturing I
- Construction & Manufacturing II
- Construction & Manufacturing III

#### Principles of Engineering

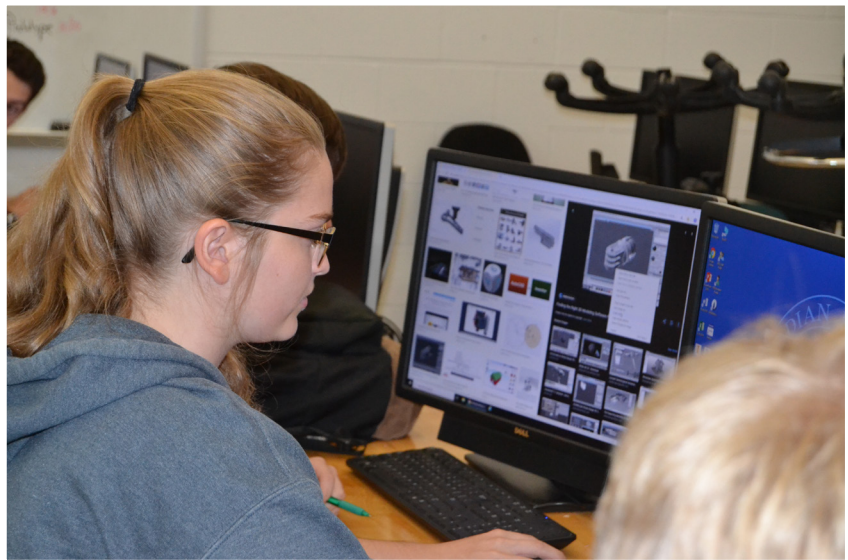
- Intro. Engineering Design
- Principles of Engineering
- Civil Engineering & Architecture
- Engineering Design/Development

#### Communication Technology

- Graphic Design & Production I
- Graphic Design & Production II
- Graphic Design & Production III

#### Information Technology

- Computer Science Essentials
- AP Computer Science Principles
- AP Computer Science A
- Cybersecurity

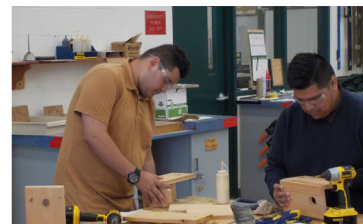


# Construction & Manufacturing Major

## Future Careers

- General Contractor
- Carpenter
- Construction Manager
- Design Specialist
- Machinist

The Technology Education Department strives to acquaint the student with construction materials, tools, and other equipment. Program participants then develop the skill and dexterity necessary for their use. The program reviews terminology, workplace safety, and critical thinking skills needed to solve common building challenges. This pathway was developed for those students interested in a job related to contracting, surveying, drafting, and the construction trades. A partnership has been established with the Georgetown Carpenters Training Center to provide postsecondary training and employment opportunities.



## Program Accomplishments

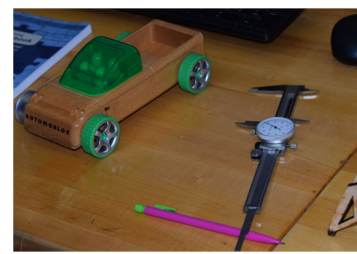
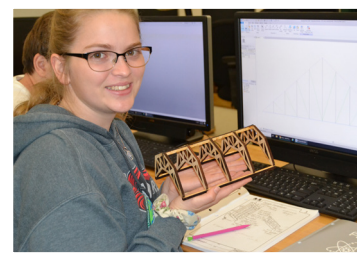
- Students have built Santa houses for Frankford and Selbyville.
- Students designed and built an outdoor staff lounge.
- Students designed and built trophy cases displaying school awards.
- Students have designed and built numerous out buildings for the school.



# Engineering Major

- Electrical Engineer
- Civil Engineering
- Mechanical Engineer
- Architectural Engineer
- Manufacturing Engineer

The Engineering pathway, prepares students for a demanding, four year college engineering program. Students that complete the pathway find that the emphasis on problem solving prepares them for the rigors of collegiate engineering matriculation. Engineering is a four year program of study that contains four distinct courses. Interested students must apply to the program in January of their 8th grade year. The proven curriculum makes extensive use of project based team assignments that focus on critical thinking. Engineering students are expected to take advanced placement math and science courses as well.



## Program Accomplishments

- The program is Project Lead The Way (PLTW) certified.
- More than 100 college and university partners actively recruit PLTW students.
- Opportunities for admission preference, scholarships, and course credit.
- Opportunity for AP & PLTW recognition.
- Further information pertaining to Project Lead The Way can be viewed at [www.pltw.org](http://www.pltw.org).





# Communication Technology Major

## Future Careers

- Web Designer
- 3D Animator
- Virtual Reality Specialist
- Multimedia Producer
- Graphic Artist
- Audio-Visual Technician
- Camera Operator
- News/Media Anchor
- Illustrator
- Art Director

*"The Graphic Design and Production class has taught me how to work proficiently in many state of the art media programs. This class has given me a great head start for a college arts program."*

*~ Cole DiLorenzo*

- Students enjoy working hands-on with industry-standard equipment
- Classes are work-simulated and learning is project-based
- Fully functional photography and media studio
- Many student-created designs are used in school
- Multiple State Champion titles in the Technology Student Association (TSA)
- National placement for Photography and Digital Video Production

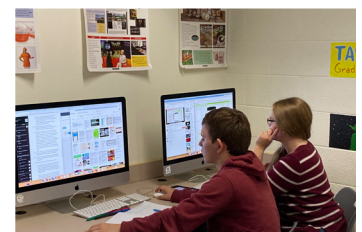
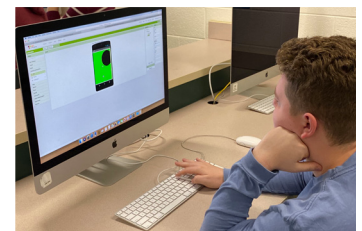


# Information Technology Major

## Future Careers

- Programmer
- Computer Engineer
- Business Analyst
- Systems Analyst
- Software Engineer
- Networking Engineer

The Computer Science pathway prepares students for a demanding, four year college computer science program. Students that complete the pathway find that the emphasis on problem solving prepares them for the rigors of collegiate computer science matriculation. Computer Science is a four year program of study that contains four distinct courses. Interested students must apply to the program in January of their 8th grade year. The proven curriculum makes extensive use of project based team assignments that focus on critical thinking. Computer Science students are expected to take advanced placement math and science courses as well.



## Program Accomplishments

- CSP and CSA are transcripted as AP courses.
- Opportunity for AP and PLTW recognition
- More than 100 college and university partners actively recruit PLTW students.
- Opportunities for admissions preference, scholarships, and course credit.
- Further information pertaining to Project Lead the Way can be viewed at [www.pltw.org](http://www.pltw.org).





# School of Education

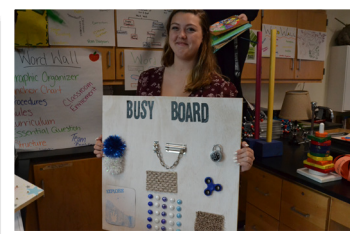
## Program Description

The Delaware K-12 Teacher Academy program of study is a 3 course Career and Technical Education program that engages students in developing a realistic understanding of teaching while exploring the importance and impact of teachers. Students will acquire the knowledge and skills needed to sustain their interest in the profession and cultivate the skills needed to be successful educators, thus creating a pipeline of high-quality students transitioning to the teaching profession. Students will understand the rigors of a career in education and participate in classroom and field experiences relevant to pursuing a degree in education.

## Education Major

### Future Careers

- Elementary Teacher
  - Secondary Teacher
  - Paraprofessional
- Human Growth & Development
  - Teaching as a Profession
  - Foundations of Curriculum & Instruction



## Program Accomplishments

- Our chapter of Educators Rising was founded at Indian River High School in 2017.
- Awarded the "Excellence in Education—Commendable Chapter" in 2018.
- Attended and won Gold, Silver & Bronze medals at the state competition in 2018





# Core Classes

IRHS core content areas have been designed to challenge students at all levels of academic ability. Critical reading and writing is strongly emphasized in all 4 major core areas. Each core area offers course levels dependent on the student's academic ability. Below is a brief description of each academic level:

## Advanced Placement (AP)

Each of the four major content areas offers advanced placement courses. These courses are aligned with the National Advanced Placement Curriculum, which allows students to earn college credit while in high school by passing the Advanced Placement exam. These courses are rigorous and require the student to be dedicated to the work involved. All Advanced Placement courses carry a significant grade point weighting allowing students to earn a maximum of 5.25 GPA on a 4.0 GPA scale. Students who wish to be accepted into Advanced Placement classes must meet several criteria: students must receive their current teacher's recommendation; students must maintain a "B" average and students must complete ALL summer work before the first day of school. Students who enroll in AP Courses are expected to take their AP exams in the spring.

## Honors

IRHS Honors programs are designed to challenge the highly motivated student. These classes help to prepare students for Advanced Placement courses. Students enrolled in honors level courses will be required to complete assigned summer work. All honors level courses carry a grade point weighting allowing students to earn a maximum of 4.75 GPA on a 4.0 GPA scale. Students who wish to be accepted and remain in honors level courses must meet the following criteria: students must receive a recommendation from their teacher; students must maintain a "B" average; and students MUST complete ALL summer work prior to the beginning of the school year. Students must apply and be accepted into any of our honors programs.

## College/Career Preparatory

The IRHS college/career preparatory program is designed to prepare students for post secondary college or movement directly into the workforce. This traditional level will provide the students with a rigorous course of study in all content areas with emphasis placed on preparing the students for college/career level expectations. All academic courses carry a grade point weighting allowing students to earn a maximum of 4.0 GPA on a 4.0 GPA scale.





# English Language Arts

## **ENGLISH 9 (1 credit) Levels: Honors(ELA-092), College Prep(ELA-093)**

Our 9th grade courses are designed to introduce students to the concepts of critical reading, writing, and thinking. Students will concentrate on effective and varied types of paragraph writing and multi-paragraph writing. Vocabulary skills in preparation for the PSAT/SAT will be emphasized as well. Literature study will revolve around a general, genre-based approach. Additionally, students will pursue independent projects and readings to improve critical and creative thinking, and learn the preliminary steps of the research process.

## **ENGLISH 10 (1 credit) Levels: Honors(ELA-102), College Prep(ELA-103)**

Our 10th grade courses continue to develop and refine those skills learned in the 9th grade with a strong emphasis on critical writing. Vocabulary skills in preparation for the SAT will be emphasized, and students will concentrate on composition writing in various rhetorical modes. Additionally, students will continue to build upon the research skills they learned in ninth grade. Literature study will take on a more in-depth approach including independent readings of novels, drama and/or poetry.

## **ENGLISH 11 (1 credit) Levels: AP(ELA-111), Honors(ELA-112), College Prep(ELA-113)**

Our 11th grade courses will concentrate on varied composition writings of literary analysis as well as the construction of a research paper. Literature study will reflect historical and/or philosophical periods of America. Also, vocabulary skills will continue to be emphasized, and students will pursue independent projects and readings for the purpose of improving critical and creative thinking to prepare for the SAT. It is recommended that students take the PSAT/NMSQT in the fall. All juniors will take the SAT in the spring.

## **ENGLISH 12 (1 credit) Levels: AP(ELA-121), Honors(ELA-122), College Prep(ELA-123)**

Our 12th grade courses are designed to concentrate on varied composition writing using sound independent judgment, logic, and argument. Literature study will reflect a refinement of literary analysis and independent evaluation. Independent projects and readings are vigorously pursued. The studies of English literature will include its historical, social and cultural perception as vocabulary skills will continue to be emphasized. Students are expected to take the SAT and/or ACT during the first semester as well as the Advanced Placement Test during the spring.

## **DTCC English 101/102 (1 credit) Level: Dual Enrollment (DT-ENG101/102)**

In partnership with Delaware Technical Community College, E101 (Critical Thinking and Academic Writing) and E102 (Composition and Research), these college-level courses are designed to teach the concepts of critical thinking, reading, writing, research, and speaking skills necessary to complete academic essays. Students are selected based upon teacher recommendation and 11th grade SAT scores, and may be required to defray some of the tuition cost. Students must maintain a 75% average in E101 to elect E102 and must carry a 75% or higher to earn DTCC credit for both semesters. While the six English credits are automatically accepted by DTCC, it is up to each student to research his/her particular colleges to see if these credits are transferable.





# Mathematics

## **ALGEBRA I (1 credit) Levels: Honors (MATH-092), College Prep (MATH-093)**

This course is a study of linear and quadratic relationships, systems of equations, properties of real numbers, and patterns. Algebra I concepts will be explored in the context of various fields and integrated with Geometry, Probability, and Statistics. The major focus will be on problem solving throughout the course.

## **GEOMETRY (1 credit) Levels: Honors (MATH-102), College Prep (MATH-103)**

Geometry is the study of polygons, points, lines, planes, and angles. Students learn theorems, definitions, and relationships by applying them to problems. Students will do a rigorous study of the Pythagorean Theorem and its needed use to find areas and volumes of plane and polyhedron figures.

## **ALGEBRA II (1 credit) Levels: Honors (MATH-112), College Prep (MATH-113)**

Algebra II is a continuation of all mathematics covered in Algebra I and Geometry with the addition of quadratic and exponential relationships, systems of equations and inequalities, linear programming, radicals, patterns, functions and graphs of functions, matrices, permutations, and combinations.

## **PRE-CALCULUS W/TRIGONOMETRY (1 credit) Levels: AP (MATH 131) Honors (MATH-132)**

This course is the culmination of all math courses taken up to Algebra II and Geometry. Students will study trigonometric functions, polar coordinates, and will undergo a more intensive study of functions and graphing. Successful completion of this course will prepare the student for any college algebra and trigonometry course or Calculus.

## **PROBABILITY & STATISTICS (1 credit) Levels: AP (PS-121), Honors (PS-122)**

This is a study of basic probabilistic theory and its application to statistical inference as a basis for decision-making. It is available to students who have satisfactorily completed Algebra II and who exhibit sufficient aptitude to benefit from the course. It has wide applications in many fields such as nursing, medicine, business, psychology, biological sciences, education, etc.

## **CALCULUS (1 credit) Levels: AP CALCULUS I (MATH - 140), AP CALCULUS II (MATH-141), Honors (MATH-142)**

This course will cover the same topics as a first semester college calculus course. The Calculus AB curriculum will cover a study of limits, the derivative and its applications, an analysis of functions and their graphs, and integration. Successful completion of Honors Advanced Algebra and Trigonometry is required for this course. AP Calculus AB students must have teacher's recommendation and are required to take the AP Calculus AB Exam.

## **FOUNDATIONS OF COLLEGE MATHEMATICS (1 credit) Levels: College Prep (MATH-123)**

This course is designed for students who are interested in pursuing non-mathematics or non-science-related fields in post-secondary institutions. This course will stress review of basic topics covered in high school Algebra I and Algebra II and on college placement tests such as the SAT and ACT and the Accuplacer. There will be extensive use of the graphing calculator as well as software applications.





# Social Studies

## **CIVICS (1 credit) Levels: Honors(SS-092), College Prep(SS-093)**

This course involves the study of federal, state, and local government. How democratic institutions function in response to the will of the people and how political action is related to the experience of everyday life is explained. The role of political parties and their importance is also examined. The scope of the course explores the American market economy and some of the links between our economy and government. Finally, the role of the United States' foreign policy in the world will be surveyed.

## **WORLD HISTORY (1 credit) Levels: Honors(SS-102), College Prep(SS-103)**

World history involves the study of social, political, and economic systems of cultures around the world. This study includes the "Golden Ages" of Asia and Africa, the Renaissance, the Age of Exploration, the Enlightenment, the Industrial Revolution, Imperialism, and the rise of Totalitarianism and Democracy. Connections are made between past events and their relationship to contemporary issues. Students should gain an understanding of world concepts and greater understanding of themselves and others.

## **U.S. HISTORY (1 credit) Levels: AP (SS-111), Honors(SS-112), College Prep(SS-113)**

This course will provide the student with an in-depth chronology of American History from the Reconstruction Era to the present. It is the story of the rise and development of a free democratic nation in a world community. The political, social and economic growth and development of the nation will be stressed. Students must apply for admission to the Honors Program. Students may enroll in AP U.S. History their junior and senior years and may receive college credit with an AP score of 3, 4, or 5. All seniors enrolled in the AP U.S. History course are expected to take the AP Exam in May.

## **PSYCHOLOGY (1 credit) Levels: Dual Enrollment DTCC (DT-PSY-121), CP (PSY-123)**

This course is a survey of general principles underlying human behavior and mental processes. Topics include the nervous system, perception, learning, motivation, personality, and psychological disorders. Methods of assessment and research principles are discussed. Some of the Course Performance Objectives of this course are to contrast the various scientific methods of research used in psychology, analyze effective and ineffective coping mechanisms, and explain how human interactions are influenced by social settings.

## **DTCC SOC111 – SOCIOLOGY (1 credit) Dual Enrollment (DT-Soc111)**

This dual enrollment course provides an analysis of American social organization and culture, through a cross-cultural perspective. Sociology investigates, describes and analyzes patterns of human behavior in all areas of human experience for the purpose of understanding the human condition. Prerequisites: SAT Verbal > 475 or Accuplacer Reading > 78 and Writing > 84. The Accuplacer test will be offered at IRHS for students interested in this course. Credits are honored by Delaware Tech, University of Delaware, and Delaware State.





# Science

## **INTEGRATED PHYSICAL SCIENCE (1 credit) Levels: Honors(SCI-092), College Prep(SCI-093)**

This course was developed to meet the ninth grade science performance indicators. It is structured around physical science in three modules. Students enrolling in the honors program should have a B-average or better in Algebra I and must apply to be accepted in to the program. The basic physics and chemistry concepts learned in the first semester are applied to earth science processes. Scientific inquiry, experimental design, and technology are woven throughout all science courses at Indian River High School.

## **BIOLOGY (1 credit) Levels: Honors(SCI-102), College Prep(SCI-103)**

Biology is a standards-based, comprehensive life science course that provides students with the knowledge necessary to make informed decisions about their own lives. Students at all levels will be exposed to scientific experimentation and hands-on activities that will enhance their abilities to solve problems as well as develop a methodical understanding of how living things work. Students must apply and be accepted in to the Honors Biology program. This program will place a heavier emphasis on biochemistry and molecular biology.

## **AP BIOLOGY (1 credit) Levels: AP I(SCI-100), AP II(SCI-101)**

AP Biology is a two-year, college level course that students can take in the place of standard biology offerings. PreAP Biology is offered to sophomores and AP Biology is offered to juniors. The course follows a syllabus approved by the College Board and culminates with an AP Biology exam at the end of the second year course. During PreAP Biology, students explore two units: Molecules and Cells and Heredity and Evolution. In AP Biology, students will explore Organisms and Populations. In order to enroll in AP Biology, students must earn an “A” in Honors Physical Science, successfully complete an application packet, and have a recommendation from all core teachers.

## **CHEMISTRY (1 credit) Levels: Honors(SCI-112), College Prep(SCI-113)**

Chemistry is a math based science course that gives students a thorough understanding of the structure of all materials. Students at all levels will participate in laboratory experiments and solve real world problems. Students enrolling in Honors Chemistry must have a B-average or better in all previous honors level math and science courses.

## **DUAL ENROLLMENT CHEMISTRY (1 credit)**

This course will include matter and measurement, the periodic table, nomenclature, chemical reactions, states of matter, solutions, rates of reactions, equilibrium, acid/base, nuclear and organic chemistry. In the lab, a strong emphasis is placed on chemical laboratory skills in correlation with lecture topics.





# Science

## **AP ENVIRONMENTAL SCIENCE (1 credit) Levels: AP(ENV-401)**

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. AP Environmental Science is a rigorous course designed to be the equivalent of a first year science course containing a lab component. This course should be taken by students who are interested in studying Environmental Science or a related science in college. All students are expected to take the AP Environmental Science exam at the end of the year.

## **PHYSICS (1 credit) Levels: Honors (SCI-122)**

This is an algebra and trigonometry based course that explores topics in mechanics such as motion in one and two dimensions, Newton's Laws, work and energy, momentum and gravitation. A "punkin-chunkin" project livens up the discussion of projectile motion and an "egg-drop" contest does the same for momentum. In addition students will work on topics of electrostatics, electricity, electromagnetic energy and sound waves. Labs using laptop computers and probes enhance the learning process. A strong background in math is required along with a willingness to do real problem solving.

## **HONORS ANATOMY AND PHYSIOLOGY (1 credit) Levels: Honors (BIO-122)**

This is a rigorous course designed for students who intend to pursue physical therapy, medical laboratory, nursing, sports medicine, or other medical related fields after high school. Units of study include the structure and function of the human body, how and why the body works, and disease processes that affect the body and the treatments used for those diseases, and the study of the medical language used by health professionals. Students will leave this course very well prepared for college courses in anatomy or for on-the-job training in health professions.

## **DTCC BIO120 – ANATOMY AND PHYSIOLOGY I (1 credit) Dual Enrollment**

This dual enrollment course studies the anatomy and physiology of humans; including the structure and function of cells, tissues, integumentary, skeletal, muscular, nervous, and endocrine systems. Coordinated laboratory experiments are an integral part of this course. Prerequisites: SAT Verbal > 475 or Accuplacer Reading > 78 and Writing > 84. The ACCUPLACER test will be offered at IRHS for students interested in this course. Students must have taken a chemistry course or be enrolled in a chemistry course at the same time. Credits are honored by Delaware Tech, University of Delaware, and Delaware State.

World Languages



# World Language

## **SPANISH I (1 credit) Levels: College Prep (SPA-103)**

The college preparatory level of this course is the first classes of the state requirement of two consecutive years of a world language. This is a performance-based, novice level course in which students will be exposed to the Spanish language and culture through listening, speaking, reading, and writing tasks. Students will be able to discuss familiar topics using single words, introductory phrases, and memorized expressions.

## **SPANISH II (1 credit) Levels: College Prep (SPA-203)**

The college preparatory level of this course is the second class of the state requirement of two consecutive years of a world language. It is a performance-based, novice to intermediate level course, which students will review material taught in Spanish I and will continue to explore the Spanish language by means of listening, speaking, reading, and writing. Students will be able to discuss familiar topics using phrases and simple sentences.

## **SPANISH III (1 credit) Levels: Honors (SPA-302)**

This Honors course is a performance-based, lower intermediate class for students who have successfully completed the second level. Students will continue to explore the Spanish language and culture by means of listening, speaking, reading, and writing. They will be able to understand and present about everyday life and personal interest texts and participate in short conversations. Prerequisite: successful completion of Spanish II with an 85% or greater and a teacher recommendation.

## **SPANISH IV (1 credit) Levels: Honors (SPA-402)**

This Honors course is a performance-based, intermediate class for students who have successfully completed the third level. It is intended for students who wish to refine their skills in Spanish and to begin combining the information learned during the previous levels to become more proficient and functional language users. Students will continue to explore the Spanish language and culture by means of listening, speaking, reading, and writing. Prerequisite: successful completion of Spanish III with an 85% or greater and a teacher recommendation.

## **AP SPANISH (1 credit) Levels: AP (SPA-401)**

The AP Spanish Language and Culture course emphasizes communication by applying the interpersonal, interpretive and presentational modes of communication in real life situations including vocabulary usage, language control, communication strategies, and cultural awareness. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish. This course engages students in an exploration of culture in both contemporary and historical contexts. It develops students' awareness and appreciation of cultural products, practices, and perspectives. Prerequisite: successful completion of SPAN IV with an 85% or greater and a teacher recommendation.





# World Language

## **ELL I (1 credit) Levels: Academic (ELL-100)**

This is a beginning level course designed to teach the basic fundamentals of English. Listening, speaking, reading, and writing will be emphasized. The main focus of this course is to help the students succeed in their high school classes. To be eligible for this course, students must be Limited English Proficient as determined by the annual ACCESS standardized test.

## **ELL II (1 credit) Levels: Academic (ELL-200)**

This is an intermediate level course designed to reinforce the fundamentals of English. The students will review basic skills and also be introduced to advanced skills in listening, speaking, reading, and writing. To be eligible for this course, students must be Limited English Proficient as determined by the annual ACCESS standardized test.

## **ELL III (1 credit) Levels: Academic (ELL-300)**

This is an advanced course designed to further the study of the English language. The students work on improving their critical reading skills. To be eligible for this course, students must be Limited English Proficient as determined by the annual ACCESS standardized test.

Health/PE/Driver's

## **Spanish Immersion Program:**

Immediately upon entrance to high school, Immersion students are provided opportunities to continue strengthening their language proficiency and apply their learning in real-world academic and career contexts. These opportunities include taking AP Spanish courses as 9th graders, enrolling in dual enrollment courses through partnerships with local colleges and universities; and potentially applying the language in real-world career experiences provided through some pathways such as Allied Health, Finance/Banking, and Teacher Academy.

## **AP Spanish Literature \***

AP Spanish Literature is equivalent to a college level introductory survey course of literature written in Spanish. Students continue to develop their interpretive, interpersonal, and presentational skills in Spanish language as well as critical reading and analytical writing as they explore short stories, novels, plays, essays, and poetry from Spain, Latin America, and U.S. Hispanic authors along with other non-required texts.

## **Advanced Spanish Grammar and Composition I (UD SPAN-300) (1 credit) \*\***




A thorough review and intensive practice, targeting structure, essential vocabulary, speaking, listening and extensive writing.

## **Oral Communications (UD SPAN-305) (1 credit) \*\*\***

For students with a comprehension knowledge of Spanish grammar and vocabulary. Emphasis on refinement of expression of abstract ideas as well as mastery of practical communication.

## **Spanish Civilization and Culture (UD SPAN-326) (1 credit) \*\*\*\***

Survey of geography, history, art and society of Latin America lands.



# Health/Driver's Education & Physical Education

## **HEALTH (HEALTH-100) (1/2 credit)**

This course will touch on areas such as substance abuse, self-esteem, decision-making, disease prevention and control, mental health, human sexuality, environment and heredity, body systems, nutrition and exercise, health careers and services. THIS COURSE IS REQUIRED FOR GRADUATION.

## **PHYSICAL EDUCATION 9 (PE-100) (1/2 credit)**

Students will participate in activities that include team and individual sports. This course provides vigorous physical play, social development, and the opportunity to learn leisure time activities with a change from the regular classroom atmosphere. Each student will dress and participate as required. THIS COURSE IS REQUIRED FOR GRADUATION.

## **PHYSICAL EDUCATION 10 (PE-200) (3/4 credit)**

Students will participate in team and individual sports activities to develop physical fitness through vigorous activities, social development through the give and take of sports, an opportunity to learn leisure time activities and a change from the regular classroom atmosphere. Each student is required to dress and participate as part of the requirement. THIS COURSE IS REQUIRED FOR GRADUATION.

## **DRIVER'S EDUCATION (DE-100) (1/4 credit)**

The Driver's Education course emphasizes a feeling of personal responsibility for safety on the streets and highways. Students have an opportunity to learn the fundamentals of safe motor vehicle operation in the classroom and behind the wheel. A minimum of thirty classroom hours and fourteen hours of on-the-road training is required. By State law it is a required course in order to get your license at age 16 and/or before the age of 18. Only 10th grade students may enroll in this course.





# Agricultural Science

## Horticulture Major

### **HORTICULTURE SCIENCE I (HORT-100) (1 credit) \***

In this course students will be introduced to various aspects of the greenhouse, nursery/landscape and turf management industries. They will gain an understanding of plant science and industry basics through laboratory research. Students in the plant science pathway will then be able to go on to Horticulture II where they will begin their hands-on experiences in our greenhouse/production areas as well as our arboretum. All students will be exposed to the FFA through classroom activities and career development event activities and will also be required to maintain a supervised project as an extension of the curriculum.

### **HORTICULTURE SCIENCE II (HORT-200) (1 credit) \*\***

This second level course will allow each student to gain practical experience in the following areas: land-scape design, greenhouse management, floriculture and turf management. They will accomplish these tasks through various hands-on techniques. Experience will be gained through identification of various trees, shrubs, flowers, ground cover, and turf grasses. Students will maintain floral crops, nursery crops, and production fields around the school and in our greenhouse. All students will be exposed to the FFA through classroom activities and career development events. They will also be required to maintain a supervised project as an extension of the curriculum.

### **HORTICULTURE SCIENCE III (HORT-300) (1 credit) \*\*\***

Students enrolled in this class will participate in the maintenance of IRHS facilities such as pruning, fertilizing, watering and mowing. They will also construct decks, patios, ponds, and fences. They will be responsible for the business aspects of the horticulture department by analyzing business plans, financial data, and record-keeping that are essential to successfully run the greenhouse/nursery. They will also be designing and implementing various research projects over the course of the year related to the horticulture industry. All students are exposed to the FFA through classroom activities and career development events. They will also be required to maintain a supervised project as an extension of the curriculum.

### **HORTICULTURE SCIENCE IV (HORT-400) (1 credit) \*\*\*\***

This is an upper level course designed to allow students to utilize knowledge they have gained in previous courses. Students enrolled in this course are required to create an in-depth research project in plant science. Their projects will be placed in the State FFA AgriScience Competitions.

Animal Science



# Agricultural Science

## Animal Science Major

### **ANIMAL SCIENCE I (ANI-100) (1 credit) \***

This class is an entry-level course for all animal science courses and is designed to explore the animal science industry through the study of economically important agriculture animals, their products, and related careers and management. The many small animal and livestock species economically important in our area will be utilized. All students will be exposed to the FFA through classroom activities and career development activities and will be required to maintain a supervised project as an extension of the curriculum.

### **ANIMAL SCIENCE II (ANI-200) (1 credit) \*\***

This course is an upper level course designed to advance the students in the study of animals, their products, anatomy, nutrition, and management. The students will also be trained to judge many livestock species for show and Career Development Events. Small animals as well as the traditional livestock species will be introduced. Students will be a part of the FFA and complete a year long supervised Agriculture Experience Project.

### **ANIMAL SCIENCE III (ANI-300) ((1 credit) \*\*\***

This course is an advanced level course and is designed to give upper level instruction for students in the animal science pathway. Many hands-on experiences will be utilized; such as experimental design laboratories and judging activities to get across subjects including water testing, feeding rates, behavioral studies, and animal evaluation. This class will also incorporate a secondary level of pre-veterinarian medicine. All students will be exposed to the FFA through classroom activities and career development activities and will be required to maintain a supervised project as an extension of the curriculum in this master level course.

### **ANIMAL SCIENCE IV (ANI-400) ((1 credit) \*\*\*\***

This course is designed to give upper level students the opportunity to explore the field of veterinary medicine. They will accomplish this by developing skills and competencies for entry-level positions in a small animal veterinary hospital, boarding kennel, animal control agency, or humane society. This class will significantly strengthen their ability to gain admittance to programs of higher education in the veterinary field for licensed animal health technician or veterinarian. This is an extremely rigorous course and students will be required to work to their maximum potential. Once the course is complete, students will have the opportunity to sit for their Certified Veterinary Assistant (CVA) certification.





# Business

## Finance & Banking

### **INTRODUCTION TO FINANCE (AOF-100) (1 credit) \***

This course explores the foundation of financial literacy, the function of finance in society, and the role of a financial planner. This course focuses on income and wealth, financial institutions, and the role of finance in organizations. Students research the impact of technology on the financial services field, explore the role of a financial planner, and examine the importance of sound financial planning. This course is a prerequisite for Principles of Accounting.

### **ACCOUNTING ESSENTIALS (AOF-200) (1 credit) \*\***

This course provides students with an understanding of the critical accounting process and how it facilitates decision making by providing data and information to internal and external stakeholders. Students learn how to apply technology to accounting by creating formulas and inputting data into spreadsheets and/or accounting software such as QuickBooks, Peachtree, etc. Students are introduced to the fundamentals of management accounting, manufacturing and cost accounting, budgeting, accounting for managerial decision making, and financial analysis. This course is a prerequisite for Financial Services.

### **FINANCE AND BANKING (AOF-300) (1 credit) \*\*\***

This course investigates the origins of money and banking and the early history of banking in the United States. Students learn to research and discriminate between investment options through an in-depth study of the financial services industry and are also introduced to the insurance industry and the critical role it plays in the financial services sector.



# Business

## Marketing Management

### **ESSENTIALS OF BUSINESS, FINANCE, AND MARKETING (BFM-100) (1 credit) •**

This course is designed for students who are entering the business pathway. The students will be exposed to core, overarching knowledge, that all business students must master. The subjects that will be included in this course will be economics and personal finance, the role of marketing, strategic management, ethics, and communication skills. Students who complete this course will be prepared to enter the Marketing pathway.

### **MARKETING MANAGEMENT II (MM-200) (1 credit) \*\***

This course introduces the students to business and marketing essentials, human resource essentials, selling, and advertising. This class will develop a comprehensive marketing plan for a hypothetical product and company. This course is a prerequisite for Marketing III.

### **MARKETING MANAGEMENT III (MM-300) (1 credit) \*\*\***

This course is designed to give students a basic understanding of business ownership. Emphasis will be placed on the advantages and disadvantages of various types of business ownership including the skills necessary to own and operate a business. Students will develop a comprehensive business plan for a hypothetical new business. Students must have successfully completed the Essentials of Business, Finance, and Marketing and Marketing II prior to enrolling in this course.

### **MARKETING MANAGEMENT IV (MM-400) (1 credit) \*\*\*\***

Designed for 11th and 12th grade students, this course will expose students to the Hospitality Industry—including Hotel and Restaurant Management as well as Travel and Tourism. This industry is very prevalent and demanding in our area since we are located in a resort area. This course will give students the opportunity to learn about the industry and prepare students for post-secondary courses in Hospitality and Tourism.





# Visual & Performing Arts

## Visual Arts

### **ART I - DESIGN FUNDAMENTALS (ART-100) (1 credit) \***

This “foundation” course introduces two-dimensional and (when possible) three-dimensional art projects focusing on the elements and principles of design and related vocabulary. To accommodate for all grade levels and abilities, this course stresses the development of strong work ethics and decision-making skills over creative ability.

### **ART II - DRAWING & PRINTMAKING/CERAMICS (ART-200) (1 credit) \*\***

During the first semester, emphasis will be placed on traditional drawing techniques and observational drawing skills. A sketchbook is required. Printmaking concepts and techniques will also be introduced on a limited basis. The second semester will include ceramics, including wheel throwing, and other clay projects will be introduced and explored focusing on materials, procedures, and the vocabulary associated with ceramic production.

### **ART III - PAINTING/PORTFOLIO PRODUCTION (ART-300) (1 credit) \*\*\***

During the first semester, students will be introduced to a variety of painting techniques and media. Projects will encourage creative problem solving skills focusing on traditional and unconventional approaches to painting. The students will begin their portfolio work during the second semester. This will allow for greater student independence in their approach to materials, techniques, and concepts as well as improving direct observational work. A minimum of six exhibition quality projects will be required by the end of the semester. These projects may be entered in a variety of art shows and competitions throughout the year to promote creative investigation and provide feedback.

### **ART IV - ADVANCED PORTFOLIO PREPARATION (ART-400) (1 credit) \*\*\*\***

This course allows for advanced portfolio development. It gives the serious art student an opportunity to complete their portfolio work in order to meet most post-secondary admissions requirements. Twelve to twenty finished pieces are necessary. The collection should reflect the student's technical ability and interests. In some cases, portfolio pieces may be directed to conform to a particular institution's entrance requirements. All students in Art IV must have instructor's permission before signing up for class.



# Visual & Performing Arts

## Performing Arts

### **MUSIC THEORY (MUS-100) (1 credit) \* (Juniors & Seniors Only)**

This course is designed for the serious student musician as an extension of the performing arts program. Students that are enrolled in this course will not only develop an understanding of the beginnings of Western music, but will dive into the world of music to learn the hows and whys of the language. Reading music is a MUST for this class. Students will hone their theory knowledge, their music reading skills and their musical technique in the first semester. In the second semester, student will use this gained knowledge to both write and arrange music of their own. Performing in class will occur so the students must own and be able to play an instrument. Voice can be considered an instrument, but the student must be competent in vocal reading. To enroll in music theory, students must have been enrolled in band or choir the previous year, but still be enrolled in a music course, and must be in the eleventh or twelfth grade.

### **CONCERT BAND (CBND-100 - CBND-400) (1 credit) \***

Students enrolled in the full band will participate in all phases of band work. The marching band participates at football games, parades and community activities. The concert band performs at least one concert and assembly program each year. Various ensembles and the stage band permit experiences in small groups. The variety of groups and music provide continuous growth on the instrument and expanded knowledge of the many forms and styles of music. Seniors taking band their senior year should register for this course as an open elective.

### **CONCERT CHOIR (CHR-100 - CHR-400) (1 credit) \***

Concert choir is a performance class in which students learn basic technical skills required in correct, traditional, artistic singing and explore a variety of selections from choral literature appropriate to their level. The class will perform in concerts in and out of school. They will also participate in planning and perform in a school variety show. Students must audition for membership; their auditions must demonstrate ability sufficient to be able to master the technical skills taught. Students will be called upon to sing by themselves at various times in rehearsal as a part of the instruction.









# Social Services

## Allied Health

### **INTRO TO MEDICINE (AHS-100) (1 credit) \***

This course is designed for students who are interested in or will be seeking a future in a health field. Students will begin the health professions pathway with the 1st year course that will create the foundation necessary to successfully complete the Nursing Assistant Certification or to continue into the Allied Health Pathway. The course will consist of hands-on activities and core health terminology utilized in all health occupations.

### **FUNDAMENTALS OF HEALTH SCIENCES (AHS-200) (1 credit) \*\***

This course is designed for students who desire to continue in the health field. Students learn medical terminology which includes Greek and Latin prefixes, suffixes, roots, abbreviations and the names of diseases and surgeries related to hospital services and allied health specialties. In addition, students explore the National Consortium Health for Science Education Health Science Standards and entry level healthcare skills.

### **ESSENTIALS OF HEALTH CAREERS (AHS-300) (1 credit) \*\*\***

This course offers students the opportunity to become effective and efficient healthcare providers as they develop a working knowledge of various healthcare opportunities. Students will focus on careers in the healthcare field by applying classroom/lab knowledge and skills to clinical settings as they participate in direct or simulated patient care.

### **ANATOMY AND PHYSIOLOGY I (DTCC-BIO120) (1 credits) \*\*\*\***

This course introduces students to human anatomy and physiology including the structure and function of cells, tissues, integumentary, skeletal, muscular, nervous, and endocrine systems. Students will learn physiology of each body system and, as well as how to investigate common diseases, disorders, and emerging diseases. Students will take the National Consortium for Health Science Education National Health Science Assessment at the completion of this course.



# Social Services

## Certified Nursing Assistant (CNA)

### **INTRO TO MEDICINE (AHS-100) (1 credit) \***

This course is designed for students who are interested in or will be seeking a future in a health field. Students will begin the health professions pathway with the 1st year course that will create the foundation necessary to successfully complete the Nursing Assistant Certification or to continue into the Allied Health Pathway. The course will consist of hands-on activities and core health terminology utilized in all health occupations.

### **FUNDAMENTALS OF HEALTH SCIENCES (AHS-200) (1 credit) \*\***

This course is designed for students who desire to continue in the health field. Students learn medical terminology which includes Greek and Latin prefixes, suffixes, roots, abbreviations and the names of diseases and surgeries related to hospital services and allied health specialties. In addition, students explore the National Consortium Health for Science Education Health Science Standards and entry level healthcare skills.

### **ESSENTIALS OF ANATOMY & PHYSIOLOGY (BIO-122) (1 credit) \*\*\***

This Honors Level course introduces students to human anatomy and physiology including the structure of cells, tissues, integumentary, skeletal, muscular, nervous, and endocrine systems. Coordinated laboratory experiments are an integral part of this course. Students learn physiology of each body system, as well as how to investigate common diseases and disorders.

### **CERTIFIED NURSING ASSISTING (CNA) (NAPC-200) (2 Credits) \*\*\*\***

Introduces students to the long-term-care resident as they learn how to provide personal care and basic nursing skills directed by a licensed nurse. Students will learn clinical skills both in-school and out of school clinical lab settings. Students will transfer knowledge and skills to an approved long-term-care facility while providing supervised care to residents. A minimum of 75 clinical hours are required by the Dept. of Health and Social Services division of Long Term Care Residence Protection. Upon completion of the program, students sit for the National Consortium for Health Science National Health Science Assessment and the Prometrics Delaware Nurse Aide Certification Exam.



# Technical Education

## Computer Science

### **COMPUTER SCIENCE ESSENTIALS (CS-100) (1 credit) \***

This course exposes students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. Students use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them.

### **CYBERSECURITY (CS-400) (1 credit) \*\*\*\***

This course introduces the tools and concepts of Cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked; in Cybersecurity, students solve problems by understanding and closing these vulnerabilities. This course raises students' knowledge of and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can affectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely.

Nationally recognized exams—College Board Assessment—AP Computer Science Principles and AP Computer Science A

### **AP COMPUTER SCIENCE PRINCIPLES (CS-200) (1 credit) \*\***

Using Python as a primary tool and incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. Projects and problems include app development, visualization of data, Cybersecurity, and simulation.

### **AP COMPUTER SCIENCE A (CS-300) (1 credit) \*\*\***

This course focuses on further developing computational thinking skills through the medium of Android App development for mobile platforms. This course utilizes industry-standard tools such as Android Studio, Java programming language, XML, and device emulators. Students collaborate to create original solutions to problems of their own choosing by designing and implementing user interfaces and web-based databases.





# Technical Education

## Construction and Manufacturing

### **CONSTRUCTION & MANUFACTURING I (CM-100) (1 credit) \***

This course is designed to provide the student with a variety of hands-on, problem solving activities. Students will brainstorm and explore areas in communications, material processing, modeling, and construction studies. Hand and power tools will be used and safety glasses are required.

### **CONSTRUCTION & MANUFACTURING II (CM-200) (1 credit) \*\***

Students will expand upon the competencies from Construction and Manufacturing I. Advanced problem-solving skills will be expected through the use of design brief sheets. This course will apply learning experiences, along with academic studies to solve a variety of design problems. Hand and power tools will be used and safety glasses are required.

### **CONSTRUCTION & MANUFACTURING III (CM-300) (1 credit) \*\*\***

This course will provide students with the opportunity to apply several of the principles of technology towards an actual product. Students will use advanced problem solving skills and detailed working drawings to complete projects. Hand and power tools will be used and safety glasses are required.

## STEM Engineering

### **INTRODUCTION TO ENGINEERING DESIGN (PLTW-100) (1 credit) \***

Designed for 9th grade students, the major focus of IED is the design process and its application. Through hands-on projects, students apply engineering standards and document their work. Students use industry standard 3D modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community.

### **PRINCIPLES OF ENGINEERING (PLTW-200) (1 credit) \*\***

Designed for 10th grade students, POE provides the students an opportunity to investigate engineering and some of the major concepts; mechanisms, energy sources and applications, machine control (robotics), material properties and testing, and kinematics. POE gives students the opportunity to develop skills and understanding of course concepts through activity, project, and problem based learning.

### **CIVIL ENGINEERING & ARCHITECTURE (PLTW-300) (1 credit) \*\*\***

Designed for 11th and 12th grade students, Civil Engineering and Architecture is the study of the design and construction of residential and commercial building projects. The course includes an introduction to many of the varied factors involved in building and site design and construction.

### **ENGINEERING DESIGN & DEVELOPMENT (PLTW-400) (1 credit) \*\*\*\***

Designed for 12th grade students. Students will design, develop, and patent a product. Feedback for each project will be provided by industry professionals. This capstone course is in place to offer students the most authentic engineering learning experience possible.



# Technical Education

## Communication Technology

### **GRAPHIC DESIGN I (GDP-100) (1 credit) \***

This course is designed as an introduction to the world of Graphic Design. The class incorporates use of the Adobe Creative Suite and Google Apps. Students will find the Project-Based Learning and hands-on Approach mirror that of a “real-world” Graphic Design Studio. Students will gain experience in Typography & Layout, Color & Composition, Photography, Elements & Principles of Design, and the Apple Computer Environment.

### **GRAPHIC DESIGN II (GDP-200) (1 credit) \*\***

This course is an extension of Graphic Design I adding a more in-depth approach to photography. Students will learn professional techniques in Adobe Photoshop, Illustrator, and inDesign. Students will have the opportunity to learn advanced photo-editing skills, composition rules, and layout techniques. Students entering this class should have Graphic Design I or similar coursework as a pre-requisite. Students should be proficient in basic computer skills and communication techniques.

### **GRAPHIC DESIGN III (GDP-300) (1 credit) \*\*\***

In this upper-level course students will prepare for post-secondary life. The primary focus of this course is to produce a functional portfolio the student can display to potential employers or post-secondary educational opportunities. Students will engage in design briefs that give them experience in basic HTML coding, Pamphlet & brochure production and Advanced Design & Layout. The third and final level of the this pathway focuses on time management, meeting deadline, and communicating with clients. Students are tasked with the production of school-based displays and materials. Student work will be evaluated by peers and public speaking is a required element of the final grading process.





# Education & Training

## Delaware K-12 Teacher Academy

### **HUMAN GROWTH AND DEVELOPMENT (TA-100) (1 credit) •**

This course introduces students to human physical, cognitive, social, and emotional development beginning with conception and ending with adulthood. Theories supporting current thinking and research on human development are examined, as well as the processes and influences affecting the developing person. Further, students explore challenges to normal growth and development.

### **TEACHING AS A PROFESSION (TA-200) (1 credit) ••**

This course explores the role of the teacher in the past, present, and future in order to understand the importance of teaching in American society and its historical significance and social impact. Students explore the responsibilities and opportunities of an effective teacher at various grade bands and consider the function of the teacher as a leader. Students also identify personal professional goals to establish a path to becoming a teacher.

### **FOUNDATIONS OF CURRICULUM AND INSTRUCTION (TA-300) (1 credit) •••**

This course explores curriculum delivery models in response to the needs of the learner. Emphasis is placed on the development of a variety of instructional materials that promote learning and a supportive classroom environment. Students analyze the influence of technology and impact on learning. Students develop lesson plans and assessments while practicing appropriate classroom management techniques to maximize the learning process for every student.

### **MINI STUDENT TEACHING**

In the fourth year of the Teacher Academy program, students will have the opportunity to spend an extended period of time in a classroom placement in a focus area of their choice. This will allow them to practice the pedagogy they have developed in their previous courses and give them hands-on experience. Industry-recognized certifications and/or licenses, as appropriate (include the partner organization and credential):

#### **Praxis Core**

Praxis® Core Academic Skills for Educators (Core) Test measures academic skills in reading, writing and mathematics. This test was designed to provide comprehensive assessments that measure the skills and content knowledge of candidates entering teacher preparation programs. Delaware's institutions of higher education use the Praxis Core tests to evaluate individuals for entry into teacher education programs. Many states, including Delaware, also require Praxis Core scores as part of their teacher licensing process.

#### **ParaPro Assessment**

Paraprofessionals must have the appropriate knowledge and ability to assist in instructing students and be competent in required instructional techniques and academic content areas. The ParaPro assessment is required for Delaware paraprofessional certification for candidates with less than two years of study at an institution of higher education.



# Electives

*The following courses are not associated with any pathway*

## **CRIMINAL JUSTICE (CJ-123) (1 credit) (Juniors & Seniors Only)**

This course will establish a frame of reference by defining crime and identifying sources of criminal law. Lessons will involve current investigative procedures used by detectives and police officers in the handling of crime scenes, methods of interviewing suspects and witnesses, and techniques for gathering and preserving evidence. Students will establish the modus operandi of the suspect, while applying technical resources available to police officers. The prison system will be examined for its strengths and challenges. Students will study federal and state court systems and participate in mock trials. Criminal Justice is designed primarily as an elective course for 12th grade students.

## **SAT PREP (SAT-100) (1 credit)**

This course allows students to familiarize themselves with the format of the SAT and ACT exams. It provides students with test taking strategies and provides time for guided practice of critical thinking, reading stamina, and conceptual understanding of mathematics.

## **CREATIVE WRITING (CTW-100) (1 credit)**

This course is designed for students to create original forms of descriptive writing, poetry, drama, and fiction. Students will develop their vocabulary and creative writing skills. Students will submit their work to local and national magazines. Computers and word processing are used for composition. Writings are presented orally and/or published in print and digital formats. This course allows students to develop as writers, produce and present original creative work, and create a culture of feedback and revision.

## **SPORTS MEDICINE (SM-100) (1 credit)**

This course is designed as the art and science of the prevention and management of athletic injuries on all levels. The program involves everyone from the athlete, parents, and coaches, to the athletic trainer, physical therapist, and physician. It is designed to prepare students to help all athletes, young and old, participate in their sport safely and to their greatest potential. The goal of this course will be to train students to help the injured athlete to return to their previous level of performance as quickly and as safely as possible.

## **MUSIC APPRECIATION (MUS-150) (1 credit)**

This course is designed to help all students gain an appreciation for music of all genres. No prior knowledge is required outside of a desire to listen to music and better understand the roots and structure of the music you already know. Students will learn basic music theory and the ukulele, as well as delving into music history with an emphasis on modern music.





# Electives

*The following courses are not associated with any pathway*

## **YEARBOOK I—Computer Publications (YRBK-100) (1 credit)**

This course is designed for the computer literate student. The course provides the interested and motivated student with the opportunity to work on the preparation, promotion and distribution of the high school yearbook. Students may work on aspects of the yearbook including: design, layout, graphic arts, business management, yearbook and ad sales, and photography. Students must secure teacher approval before enrolling in this course.

## **YEARBOOK II—Advanced Computer Publications (YRBK-200) (1 credit) Teacher Approval Only .**

Computer Publications is an extension of the Yearbook I course. It is designed for the student who successfully completed Yearbook I and would like to pursue a career in graphic design, photography or advertising sales. Students must have successfully passed Graphic Design I to enroll in this class.

The following courses are not associated with any pathway.

## **STRENGTH AND CONDITIONING I (SAC-100) (1 credit) (Juniors & Seniors Only)**

This course addresses the concerns of how the body adapts to the stress of exercise, more specifically, the problems unique to sports. Students will learn the benefits and principles of building strength and muscular endurance through basic and advanced techniques. Full athletic participation is required.

## **STRENGTH AND CONDITIONING II (SAC-200) (1 credit) (Juniors & Seniors Only)**

This course is structured to encourage and implement programs to meet the diverse interest and career opportunities in Exercise Physiology. The major goal is to promote an appreciation for involvement in sports and exercise and the role these activities can plan in shaping one's lifestyle. Full athletic participation is required. Students may take Strength & Conditioning a maximum of 2 years.









# Schedule Worksheet

Students should use this sheet to plan their classes for next year. Please keep in mind the course level when registering for a class. All pathway courses must be taken in sequence. Please plan your courses with the help of your parents, teachers, and guidance counselors.

Student Name \_\_\_\_\_ Student I.D. \_\_\_\_\_

Current Grade \_\_\_\_\_ Phone Number \_\_\_\_\_

Course Number	Course Name	Teacher Recommendation

## Alternate Course Requests

Please list any alternate courses in the table below.

Course Number	Course Name	Teacher Recommendation









## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

[illegible]









INDIAN RIVER  
HIGH SCHOOL

Indian River High School  
Dagsboro, DE