

# Central Academy of Technology and Arts Pathways

## “Class of 2029”

### Information Technology – Cyber Security

<b>9<sup>th</sup></b>	CompTIA IT Fundamentals	AP Computer Science Principles
<b>10<sup>th</sup></b>	Network Engineering Tech I Honors Python Programming 1 Honors (Optional)	PLTW Intro to Cyber Security AP Computer Science A (optional)
<b>11<sup>th</sup></b>	<b>CTI 140:</b> Virtualization Concepts <b>NOS 120:</b> Linux/UNIX Single User	<b>CTI 141:</b> Cloud and Storage Concepts <b>NOS 230:</b> Windows Administration I
<b>12<sup>th</sup></b>	<b>SEC 110:</b> Security Concepts <b>SEC 150:</b> Secure Communications	<b>SEC 160:</b> Security Administration I <b>SEC 258:</b> Security Compliance

### Information Technology – Computer Engineering

<b>9<sup>th</sup></b>	CompTIA IT Fundamentals	Microsoft Excel Expert
<b>10<sup>th</sup></b>	Computer Engineering Tech I	Computer Engineering Tech II Honors
<b>11<sup>th</sup></b>	Network Engineering Tech I Honors	Network Engineering Tech II Honors
<b>12<sup>th</sup></b>	<b>Optional electives:</b> Electronics DC Honors (Level 1), Electronics AC Honors (Level 2), Robotics Honors	Network Engineering Tech III Honors

### Information Technology – Software & Game Design

<b>9<sup>th</sup></b>	Microsoft Excel Expert or Visual Art I	AP Computer Science Principles
<b>10<sup>th</sup></b>	Python Programming I Honors (Programming Track) <b>OR</b> <b>Adobe Visual Design 1 Honors (Arts track)</b>	AP Computer Science A (Programming track) <b>OR</b> <b>Adobe Video Design 1 Honors (Arts track)</b>
<b>11<sup>th</sup></b>	3D Modeling and Animation I	AP Computer Science A 3D Modeling and Animation II
<b>12<sup>th</sup></b>	Game Art & Design Honors	Advanced Game Art & Design Honors

### Medical Science

<b>9<sup>th</sup></b>	PLTW Principles of Biomedical Honors	Health Science I Honors
<b>10<sup>th</sup></b>	PLTW Human Body Systems Honors	Health Science II Honors
<b>11<sup>th</sup></b>	PLTW Medical Interventions Honors	
<b>12<sup>th</sup></b>	PLTW Biomedical Innovation Honors	<b>Optional electives:</b> Sports Medicine 1 Honors, CTE Medical Internship

**Performing Arts - Dance**

<b>9<sup>th</sup></b>	Tech Theatre I	Dance I
<b>10<sup>th</sup></b>	Dance II	Dance III Honors
<b>11<sup>th</sup></b>	Dance III Honors	Dance IV Honors
<b>12<sup>th</sup></b>	<b>Optional electives:</b> Tech Theatre I, Apparel II, Dance Specialization Honors	Dance IV Honors

**Performing Arts – Music Production and Recording Arts**

<b>9<sup>th</sup></b>	Music Theory Honors	Either Band or Chorus
<b>10<sup>th</sup></b>	Adobe Video Design I Honors Either Band, Chorus, or Music Specialization	Audio Engineering Tech I Honors
<b>11<sup>th</sup></b>	Audio Engineering Tech II Honors Either Band, Chorus, or Music Specialization	Adobe Video Design II Honors Optional: Adobe Visual Design I Honors
<b>12<sup>th</sup></b>	CTE Advanced Studies in AATV pathway	Either Band or Chorus, Music Specialization, or Internship

**Performing Arts - Theatre**

<b>9<sup>th</sup></b>	Theatre I	Apparel I & Musical Theatre
<b>10<sup>th</sup></b>	Technical Theatre I and Theatre II	Theatre III Honors
<b>11<sup>th</sup></b>	Theatre III Honors	Theatre IV Honors
<b>12<sup>th</sup></b>	Theatre IV Honors	<b>Optional electives:</b> Theatre Specialization Honors, Tech Theatre II, Play Production, Apparel II, Physical Theatre

**Pre-Engineering: Pre-Engineering Track ; Pre-Engineering Tech Track**

<b>9<sup>th</sup></b>	PLTW Intro to Engineering Design (IED) (Both tracks)	Robotics I Honors (Both tracks)
<b>10<sup>th</sup></b>	Electronics DC Honors (Both tracks)	Electronics AC Honors (Both tracks)
<b>11<sup>th</sup></b>	PLTW Principles of Engineering (POE)  Advanced Manufacturing 1 Honors	PLTW Computer Integrated Manufacturing (CIM)  Manufacturing Robotics Honors
<b>12<sup>th</sup></b>	PLTW Capstone  Advanced Manufacturing 2 Honors	<b>Elective Options</b> – PLTW Aerospace Engineering (AE), PLTW Civil Engineering & Architecture (CEA), AP Computer Science, Advanced Manufacturing I and II, Manufacturing Robotics Honors

### Transportation - Auto Technology

<b>9<sup>th</sup></b>	Collision Repair Fundamentals	Automotive Service Fundamentals
<b>10<sup>th</sup></b>	Auto Service I	Auto Service II
<b>11<sup>th</sup></b>	Auto Service III	Auto Service – Engine Drivetrain
<b>12<sup>th</sup></b>	CTE Advanced Studies (optional)	Auto Service – Suspension Chassis Electrical

### Transportation – Collision

<b>9<sup>th</sup></b>		Collision Repair Fundamentals
<b>10<sup>th</sup></b>	Collision Repair I	
<b>11<sup>th</sup></b>	Collision Repair II Non-structural	Collision Repair II Refinishing
<b>12<sup>th</sup></b>		CTE Advanced Studies

### International Academy

<b>9<sup>th</sup> and 10<sup>th</sup></b>	<i>IB Diploma Programme Prerequisites:</i>  Honors Math 1, 2, AND 3  Honors English 1 OR Adv. Inquiry AND Honors English 2  Honors Earth Science, Honors Biology, AND Honors Chemistry  Honors Civic Literacy AND Honors Economics and Personal Finance  Spanish/French 1, 2, AND 3  Health/PE  Visual Art 1	<i>Suggested courses (These courses are not required but are helpful for success in the IB DP)</i>  AP Precalculus  Spanish/French IV Honors  Advanced Inquiry Honors
<b>11<sup>th</sup> and 12<sup>th</sup></b>	<i>IB Diploma Programme requirements:</i>  IB Language and Literature* IB French IB Spanish IB History* IB Biology IB Environmental Systems and Societies IB Applications and Interpretation* IB Visual Arts IB Theory of Knowledge	<i>These courses will be taken yearlong on an A/B schedule over two years.</i>  *This course will also count towards graduation requirements