

# Central Academy of Technology and Arts Pathways 2016-2017

## Information Technology – Cyber Security

	1 <sup>st</sup> semester	2 <sup>nd</sup> semester
9 <sup>th</sup>	Foundations of Information Technology	Microsoft Excel/Access
10 <sup>th</sup>	Computer Programming I HN	Network Engineering Tech I
11 <sup>th</sup>	Introduction to Cyber Security I	Introduction to Cyber Security II
12 <sup>th</sup>	Advanced level Cyber Security courses (SPCC)	Advanced level Cyber Security courses (SPCC)

*Recommended electives: Computer Programming II HN*

## Information Technology – Computer Engineering

	1 <sup>st</sup> semester	2 <sup>nd</sup> semester
9 <sup>th</sup>	Foundations of Information Technology	Microsoft Excel/Access
10 <sup>th</sup>	Computer Engineering Tech I	Computer Engineering Tech II Honors
11 <sup>th</sup>	Network Engineering Tech I	Network Engineering Tech II Honors
12 <sup>th</sup>	Networking Engineering Tech III Honors	Computer Programming I HN or Intro Cyber Security I or AP Computer Science

*Recommended electives: Computer Programming I HN*

## Information Technology – Software & Game Design

	1 <sup>st</sup> semester	2 <sup>nd</sup> semester
9 <sup>th</sup>	Microsoft Excel/Access	Computer Programming I HN
10 <sup>th</sup>	AP Computer Science Principles or Computer Programming II HN	AP Computer Science A
11 <sup>th</sup>	SAS Programming I HN	Scientific & Technical Visualization I Honors
12 <sup>th</sup>	Game and Art Design Honors	Advanced Game Art & Design Honors

*Recommended electives: SAS Programming II HN, CTE Advanced Studies in Business and IT*

## Medical Science

	Core Courses	Elective Course
9 <sup>th</sup>	PLTW Principles of Biomedical - Honors	Health Science I HN
10 <sup>th</sup>	PLTW Human Body Systems - Honors	Sports Medicine I HN or AP Bio/EnvSci
11 <sup>th</sup>	PLTW Medical Interventions - Honors	Sports Medicine II HN or AP Chem/Physics/Biology/env sci
12 <sup>th</sup>	PLTW Biomedical Innovation - Honors	Health Science II – Honors CTE Medical Internship or AP Chem/Physics/Biology or Forensics

*Recommended electives: Medical Spanish*

**Performing Arts - Dance**

	<b>1<sup>st</sup> semester</b>	<b>2<sup>nd</sup> semester</b>
<b>9<sup>th</sup></b>	Apparel and Costume Design	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>	Dance IV Honors	Technical Theatre I

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

	<b>1<sup>st</sup> semester</b>	<b>2<sup>nd</sup> semester</b>
<b>9<sup>th</sup></b>	Band, Chorus or Piano	Music Theory HN
<b>10<sup>th</sup></b>	Band, Chorus or Piano (advanced level)	AP Music Theory Multimedia and Webpage Design
<b>11<sup>th</sup></b>	Intro to Recording Arts. Band, Chorus or piano (advanced level)	Film Production I
<b>12<sup>th</sup></b>	Recording Arts II	Band, Chorus, or piano (advanced level)

*All MPRA students should take Piano during their time at CATA.*

**Performing Arts - Theater**

	<b>1<sup>st</sup> semester</b>	<b>2<sup>nd</sup> semester</b>
<b>9<sup>th</sup></b>	Theater I, Apparel and Costume Design	Musical Theater
<b>10<sup>th</sup></b>	Theater II	Technical Theater I
<b>11<sup>th</sup></b>	Theater III Honors	Theater III Honors
<b>12<sup>th</sup></b>	Theater IV Honors	Theater IV Honors

**Transportation - Auto Technology**

	<b>1<sup>st</sup> semester</b>	<b>2<sup>nd</sup> semester</b>
<b>9<sup>th</sup></b>	Intro to Auto Services	
<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>	Auto Service – Suspension Chassis Electrical	Hybrid and EV Technology

*Recommended electives: Collision*

**Transportation – Collision**

	<b>1<sup>st</sup> semester</b>	<b>2<sup>nd</sup> semester</b>
<b>9<sup>th</sup></b>		Intro to Auto Services
<b>10<sup>th</sup></b>	Collision I - Introduction	
<b>11<sup>th</sup></b>	Collision II – Non-structural	Collision III – Re-finishing
<b>12<sup>th</sup></b>	Collision IV - Estimating	CTE Advanced Studies

**Pre-Engineering current students (prior to 16-17)**

	<b>1<sup>st</sup> semester</b>	<b>2<sup>nd</sup> semester</b>
<b>9<sup>th</sup></b>	PLTW Intro to Engineering	Electronics I
<b>10<sup>th</sup></b>	PLTW Computers Integrated Manufacturing (CIM)	Drafting I Honors (or Metals Manuf HN)
<b>11<sup>th</sup></b>	PLTW Digital Electronics (DE)	PLTW Principles of Engineering (POE) <b>Elective Option</b> – Metals Manufacturing HN
<b>12<sup>th</sup></b>	PLTW Engineering Design & Development (EDD)	<b>Elective Options</b> – PLTW Aerospace Engineering, PLTW Civil Engineering & Architecture, and Metals Manufacturing

*\*All courses are required to achieve academy recognition (not elective options). The prerequisite for each course is successful completion of the previous course. In addition the following math prerequisites must be met.*

*Computers Integrated Manufacturing – Math II*

*Drafting I – Math I*

*Aerospace Engineering – Math III*

**Revised to start 16-17****Pre-Engineering**

	<b>1<sup>st</sup> semester</b>	<b>2<sup>nd</sup> semester</b>
<b>9<sup>th</sup></b>	PLTW Intro to Engineering	Drafting 1 Honors
<b>10<sup>th</sup></b>	Electronics 1	PLTW Digital Electronics (DE) <b>Elective Option</b> - Drafting 2 Honors
<b>11<sup>th</sup></b>	PLTW Computers Integrated Manufacturing (CIM)	PLTW Principles of Engineering (POE) <b>Elective Option</b> – Metals Manufacturing & Drafting 2 Honors
<b>12<sup>th</sup></b>	PLTW Engineering Design & Development (EDD)	<b>Elective Options</b> – PLTW Aerospace Engineering, PLTW Civil Engineering & Architecture, and Metals Manufacturing I & 2

*\*All courses are required to achieve academy recognition (not elective options). The prerequisite for each course is successful completion of the previous course. In addition the following math prerequisites strongly encouraged to be successful in the CATA classes.*

*Computers Integrated Manufacturing – Math III*

*Drafting I – Math I*

*Principles of Engineering – Pre-Calculus, Physics (optional)*