



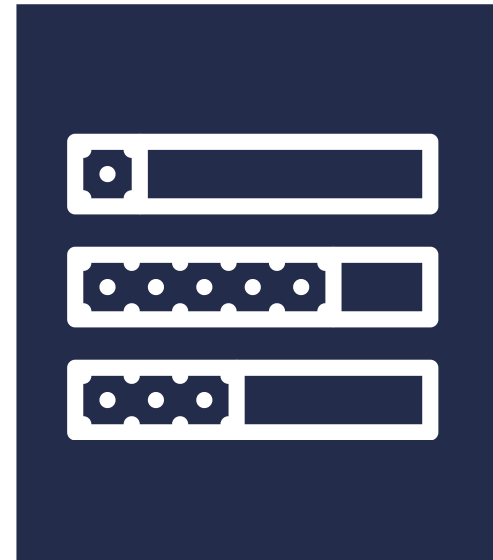
C.T.E.

CTE ROUNDTABLE
NOVEMBER 7, 2024



Curriculum Components

VA CTE
Competencies



Experiential Learning

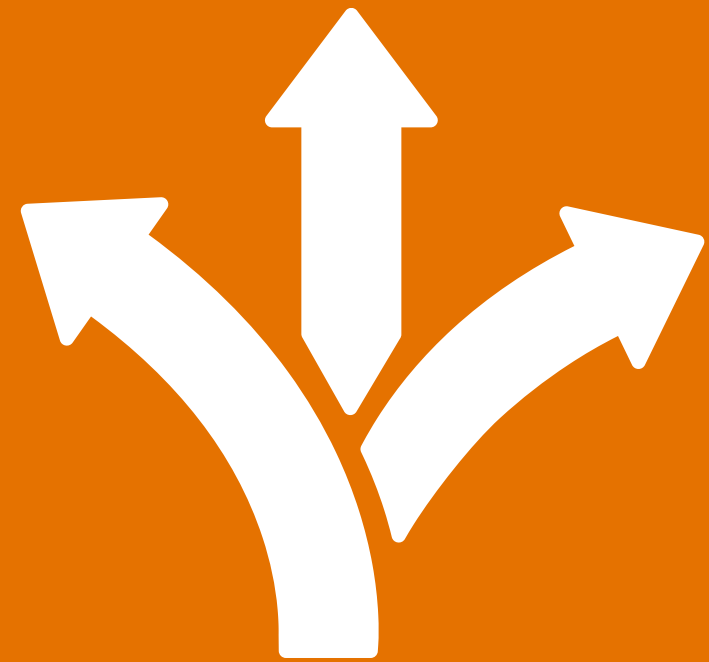


Work-Based Learning
Student CTSO



Credentials





VDOE Career Clusters & Pathways





Career Clusters

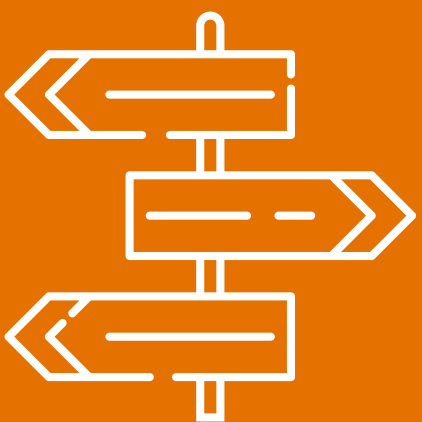
Career clusters help to organize Virginia's career and technical education programs and curricula and are helpful for creating student plans of study. There are 17 clusters, representing 83 career pathways.

- **Agriculture, Career & Natural Resources**
- **Architecture & Construction**
- **Arts, A/V Technology & Communications**
- **Business Management & Administration**
- **Education & Training**
- **Energy**
- **Finance**
- **Government & Public Administration**
- **Health Science**
- **Hospitality & Tourism**
- **Human Services**
- **Information Technology**
- **Law, Public Safety, Corrections & Security**
- **Manufacturing**
- **Marketing**
- **Science, Technology, Engineering & Mathematics**
- **Transportation, Distribution & Logistics**

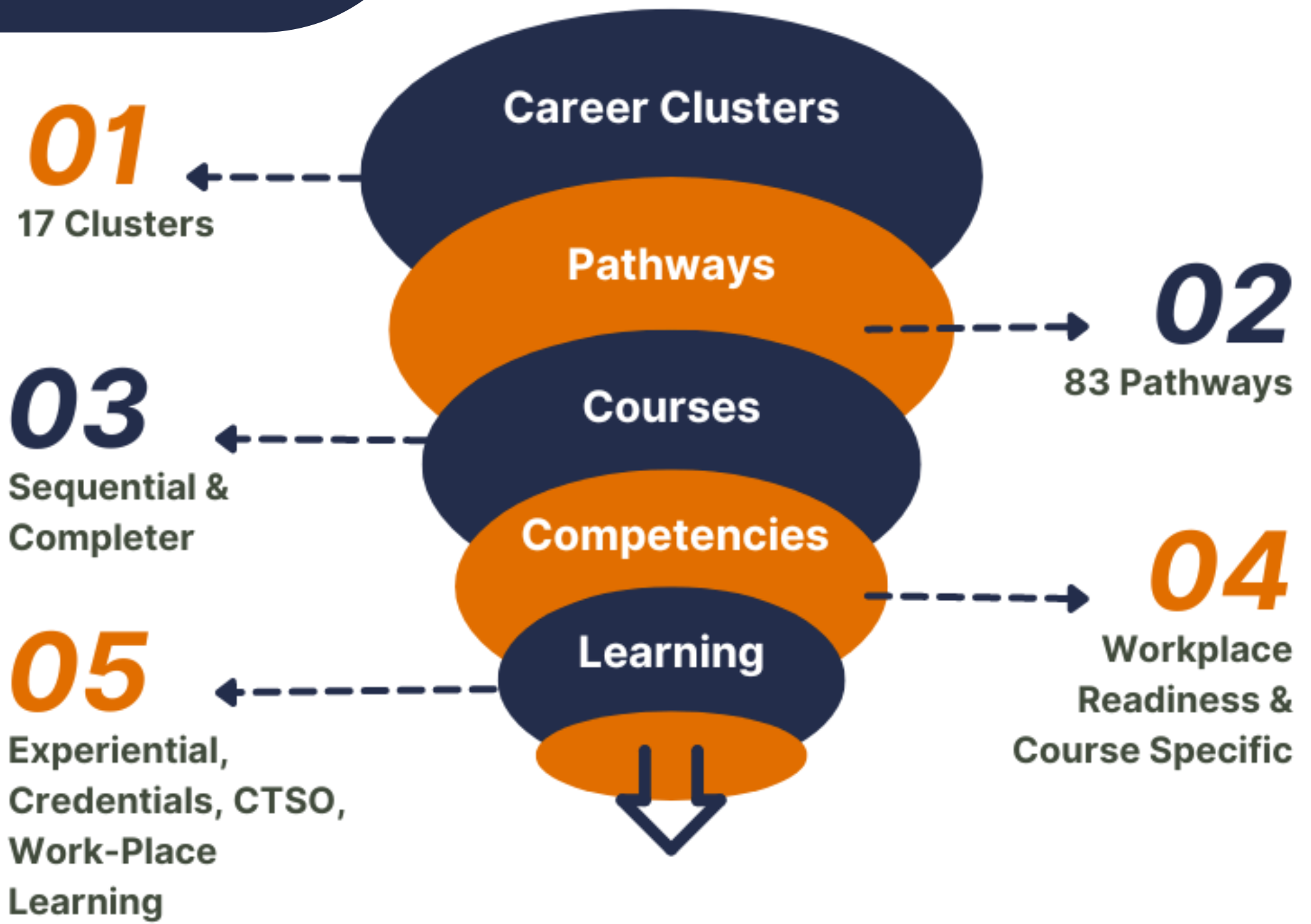


Curriculum Elements





CTE Curriculum





Let's Use Agriculture as an Example





VDOE Available Pathways - Agriculture

Agribusiness Systems

Animal Systems

Environmental Service Systems

Natural Resources Systems

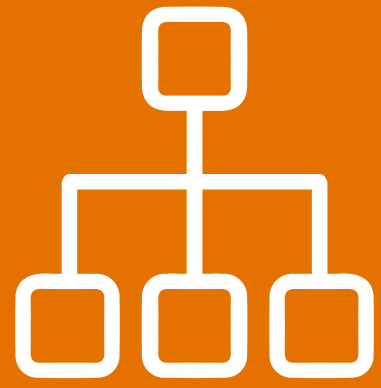
Plant Systems

Power, Structural, and Technical Systems

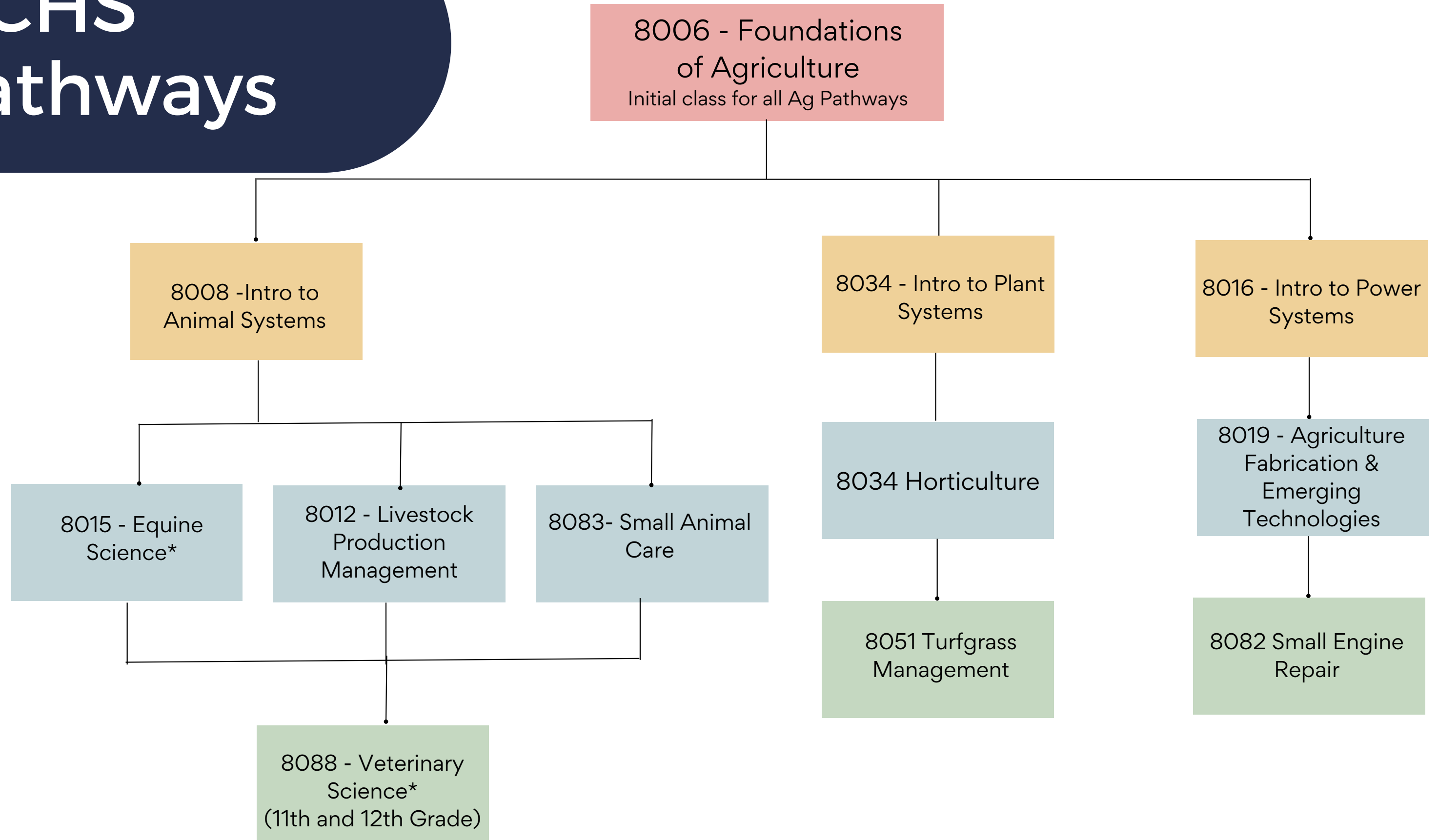
Food Products and Processing Systems

Biotechnology Research and Development

Manufacturing Production Process Development



OCHS Pathways



8006 - Foundations of Agriculture
Initial class for all Ag Pathways

8008 - Intro to Animal Systems

8034 - Intro to Plant Systems

8016 - Intro to Power Systems

8015 - Equine Science*

8012 - Livestock Production Management

8083 - Small Animal Care

8034 Horticulture

8019 - Agriculture Fabrication & Emerging Technologies

8088 - Veterinary Science*
(11th and 12th Grade)

8051 Turfgrass Management

8082 Small Engine Repair

*Must have passed Bio to take these classes



Sample VDOE Ag Certifications

- **Certified Commercial Pesticide Applicator Examination**
- Certified Private Applicator Examination
- Certified Registered Technician Pesticide Applicator Examination
- Production Agriculture Assessment
- Agriculture Mechanics Assessment
- FAA Remote Pilot Small Unmanned Aircraft Systems Certification Examination
- Floriculture Assessment
- Horticulture/Landscaping Assessment
- Floriculture Greenhouse Assessment
- Small Engine Technology Assessment
- Beef Quality Assurance: **Cow/Calf, Stocker/Backgrounder, Transportation - Farmer Rancher, Feedyard**, Biosecurity, Transportation - Professional Driver
- **Workplace Readiness Skills for the Commonwealth Examination**



VDOE Approved Work-Based Learning

School-coordinated sequence of experiences that are related to a student's career goals or interests. It enables students to apply classroom instruction in a real-world business or community.

- Job shadowing
- Mentorship
- Service learning
- Internship
- Clinical experience
- Cooperative education
- Youth registered apprenticeship
- Registered apprenticeship
- Supervised agricultural experience

COURSE ENROLLMENTS

Course	2020-21 Enrollment	2021-22 Enrollment	2022-23 Enrollment	2023-24 Enrollment
AGRICULTURE				
Foundations of Ag, Food & Natural Resources	95	69	128	142
Introduction to Animal Systems	40	56	53	61
Veterinary Science I		15		
Equine Science & Adv.		19	4	No Teacher
Small Animal Care	Not offered	Not offered	Not offered	
Introduction to Power Structure & Tech Systems	16	35		50
Introduction to Plant Systems	Not offered	Not offered	Not Offered	12
Horticulture Sciences	42	17	28	
Livestock Production Management			11	19
Agricultural Power Systems	6	16	Removed from Path	Removed from Path
Agricultural Fabrication & Emerging Technology	4		12	10
Greenhouse Plant Production & Management				
Landscaping I, II		16		
Small Engine Repair	Not Offered	Not Offered	Not Offered	16

COURSE ENROLLMENTS

Course	2020-21 Enrollment	2021-22 Enrollment	2022-23 Enrollment	2023-24 Enrollment
BUSINESS & INFORMATION TECHNOLOGY				
Economics & Personal Finance	383	350	345	336
Principles of Business & Marketing	84	96	109	109
Accounting	No Teacher	No Teacher	No Teacher	No Teacher
Computer Information Systems	17	1	2	
Digital Applications	50	12	38	27
Design, Multimedia, & Web Tech, & Advanced	49	36	31	18
Entrepreneurship Education	20	10	19	10
Opportunities in Hospitality & Tourism	No Teacher	No Teacher	No Teacher	No Teacher
COMMUNICATIONS				
Communication Systems	Not offered	71	17	41
Graphic Communications	Not offered	Not offered	14	No Teacher
Video & Media Technology	Not offered	21	13	No Teacher

COURSE ENROLLMENTS

Course	2020-21 Enrollment	2021-22 Enrollment	2022-23 Enrollment	2023-24 Enrollment
FAMILY AND CONSUMER SCIENCES				
Independent Living	154	98	109	113
Child Development & Parenting	52	52	61	80
Community Service Learning	0	12	16	40
DE Introduction to Teaching EDU 200	No Teacher	No Teacher	No Teacher	No Teacher
DE Human Growth & Development EDU 207	No Teacher	No Teacher	No Teacher	No Teacher
Nutrition and Wellness (Fall 2023)				82
HUMAN SERVICES				
Cosmetology I, II	9	5	22	32
HEALTH & MEDICAL SCIENCES				
Introduction to Health & Medical Sciences	146	68	183	98
Nursing Aide I, II	39	49	27	62
Emergency Medical Technician I			14	12
Sports Medicine /Athletic Training I, II	44	50	22	37
LAW, PUBLIC SAFETY & SECURITY				
Firefighting I			6	6

COURSE ENROLLMENTS

Course	2020-21 Enrollment	2021-22 Enrollment	2022-23 Enrollment	2023-24 Enrollment
MARKETING				
Marketing	61	35	36	31
Strategic Marketing to include: Sports, Fashion, etc.	30	30	No Teacher	No Teacher
MILITARY SCIENCE				
JROTC Leadership Education and Training 1-4	128	147	141	110
Leadership & Citizenship	51	39	41	45
TECHNOLOGY EDUCATION				
Technical Drawing & Design	70	55	71	71
Engineering Drawing & Design	35	37	39	44
Architectural Drawing & Design	13	14	17	11
Advanced Drawing & Design	8	10	8	9
Technology Foundations	63	84	64	69
Technology Transfer	24	45	16	22
Advanced Graphic Design	No Teacher	No Teacher	No Teacher	No Teacher
Technology of Robotic Design	11	12	10	20
Mechatronics I, II	46	27	No Teacher	No Teacher

COURSE ENROLLMENTS

Course	2020-21 Enrollment	2021-22 Enrollment	2022-23 Enrollment	2023-24 Enrollment
TRADE AND INDUSTRIAL EDUCATION				
Dual Enrollment Automotive Technology	Not Offered	10	10	5
Dual Enrollment Automotive Diagnostician	Not Offered		4	
Information Technology Fundamentals	23	46	14	1
Cybersecurity Fundamentals	51	37	19	75
Computer Science Programming & Advanced	3	4	2	96
Cybersecurity Systems Technology & Advanced	27	31	8	15
Cyber Security Network Systems	6	1	5	
Game Design & Development		24	119	11
Introduction to Computer Science - Python	13	43	25	23
AP Computer Science Principles	1	3	2	3
AP Computer Science A	Not Offered	2	2	
Work Based Learning for Credit	150	140	78	89

For More Information:



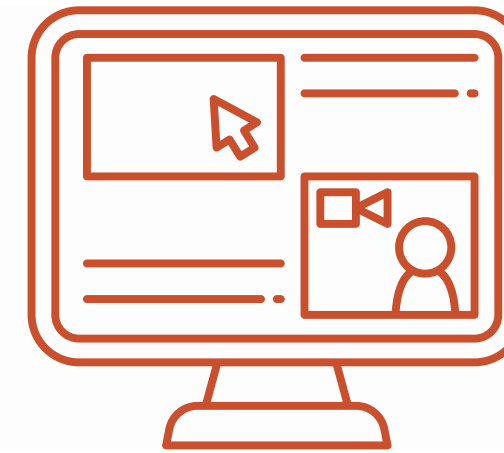
[Credentials](#)



[Career Clusters](#)



[Work-Based Learning](#)



[VDOE Course Offerings](#)



[OCHS Course Offerings](#)

Thank You!

CTE TEACHERS

We Appreciate All You Do

