

CTAE PATHWAY GUIDE

LAMBERT HIGH SCHOOL



805 Nichols Rd, Suwanee, GA 30024 | www.forsyth.k12.ga.us/lhs

A/V Technology and Film



A/V TECHNOLOGY AND FILM students will design, manufacture, operate and/or repair audio visual equipment, create presentations of sound, video, and data in a variety of formats, gather information, prepare broadcasts, build sets, and operate equipment used to record and transmit programs and/or motion pictures, and operate sound mixing and/or video editing equipment.

PATHWAY COURSES

- Audio and Video Technology and Film I
- Audio and Video Technology and Film II
- Audio and Video Technology and Film III

CAREER CHOICES

- Audio and Video Equipment Technician
- Broadcast News Analyst
- Broadcast Technician
- Camera Operator
- Control Room Technician
- Editor
- Journalist
- Radio and Television Announcer
- Reporter
- Sound Technician
- Station Manager

INDUSTRY CREDENTIAL (Credential of Value): Adobe Certified Associate

Business Accounting



BUSINESS ACCOUNTING will experience strong growth in accounting jobs throughout the next decade is expected to occur due to the increased growth in the number of new businesses and stricter accounting and auditing regulations.

PATHWAY COURSES

- Introduction to Business and Technology
- Financial Literacy
- Principles of Accounting I

CAREER CHOICES

- Auditing Clerk
- Auditor
- Bookkeeper
- Budget Analyst
- Certified Public Accountant
- Corporate Accountant
- Financial Advisor or Analyst
- Forensic Accountant
- Government Accountant
- Income Tax Professional
- Non-Profit Accountant

INDUSTRY CREDENTIAL (Credential of Value): NOCTI Accounting-Basics

Cloud Computing



CLOUD COMPUTING students will develop an overall understanding of cloud computing, cloud concepts, core services, security, architecture, and support. Technical content includes designing, developing, and deploying a virtual private network, creating a cloud environment that is scalable, and demonstrating safe use of big data. Students will also dive deeply into cloud computing best practices and learn how cloud computing helps users develop a global infrastructure.

PATHWAY COURSES

- Introduction to Software Technology
- Computer Science Principles or AP CS Principles
- Cloud Computing

CAREER CHOICES

- Software Engineer
- Cloud Engineer
- Data Engineer
- System Engineer
- Full Stack Developer
- Java Developer
- Data Scientist
- Systems Administrator
- .NET Developer
- Front-end Developer

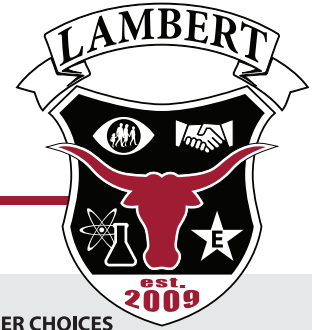
INDUSTRY CREDENTIAL (Credential of Value): Not Yet Approved by the Georgia Department of Education

For more education on each pathway, download a complete Program of Study:

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Programs-of-Study.aspx>

CTAE PATHWAY GUIDE

LAMBERT HIGH SCHOOL



805 Nichols Rd, Suwanee, GA 30024 | www.forsyth.k12.ga.us/lhs

Computer Science



COMPUTER SCIENCE students will prepare for entry-level, technical, and professional IT careers, including the design, development, implementation, and maintenance of computer systems and software. Students will also gain knowledge of computer operating systems, programming languages, and gain knowledge of required cutting-edge technologies. Students will build a solid understanding and foundation of computer science which emphasis on computational thinking practices: connecting computing, developing computational artifacts, abstracting, analyzing problems and artifacts, communicating, and collaborating.

PATHWAY COURSES

Introduction to Software Technology
 Computer Science Principles or AP CS Principles
 AP Computer Science A

CAREER CHOICES

Computer Hardware Engineer
 Computer Network Architect
 Computer Programmer
 Computer System Analyst
 Database Administrator
 Information Security Analyst
 Information Systems Manager
 Network Administrator
 Software Developer
 Software Engineer
 Video Game Designer

INDUSTRY CREDENTIAL (Credential of Value): Microsoft Technology Associate (MTA): Software Development Fundamentals

Culinary Arts



CULINARY ARTS students will complete a variety of skills required by the restaurant and food industry such as knife skills, cooking techniques, menu planning, food purchasing and costing, food safety and sanitation, and front of the house service. The pathway allows students to develop in-depth knowledge and hands-on skill mastery of culinary arts and allows them to refine hands-on production of the classic fundamentals in the commercial kitchen.

PATHWAY COURSES

Introduction to Culinary Arts
 Culinary Arts I
 Culinary Arts II

CAREER CHOICES

Cake Designer
 Caterer
 Chef and Head Cook
 Dining Room Management
 Food and Beverage Director
 Food Services Manager
 Food Stylist and Photographer
 Food Writer and Critic
 Kitchen Manager
 Pastry Chef
 Personal Chef
 Restaurant Entrepreneur

INDUSTRY CREDENTIAL (Credential of Value): American Culinary Federation (ACFEF) Secondary Culinary Graduate

Education as a Profession



EDUCATION AS A PROFESSION students will learn to plan, manage, and provide education and training services, and related learning support services such as administration, teaching/training, administrative support, and professional support services. They will be engaged in observations, interactions, and analyses of critical and contemporary educational issues and investigate issues influencing the social and political contexts of educational settings in Georgia and the United States and actively examines the teaching profession from multiple vantage points both within and outside of the school.

PATHWAY COURSES

Education as a Profession I
 Education as a Profession II
 Education as a Profession Practicum

CAREER CHOICES

Adult Educator
 After-School Program Supervisor
 Coach
 Education Evaluator
 Educational and Teacher Aide
 K-12 School Teacher
 Media Specialist
 Post-Secondary Vocational Education
 Recreation Attendant
 School Administration
 Special Education Teacher

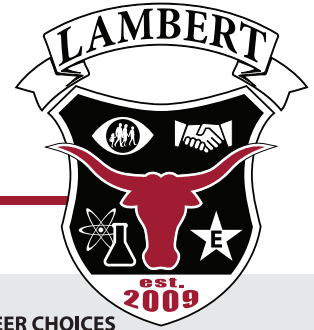
INDUSTRY CREDENTIAL (Credential of Value): NOCTI Teaching as a Profession (College EDUC 2110 Credit in Georgia)

For more education on each pathway, download a complete Program of Study:

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Programs-of-Study.aspx>

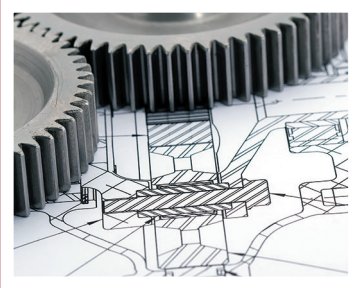
CTAE PATHWAY GUIDE

LAMBERT HIGH SCHOOL



805 Nichols Rd, Suwanee, GA 30024 | www.forsyth.k12.ga.us/lhs

Engineering and Technology



ENGINEERING AND TECHNOLOGY students will combine hands-on projects and rigorous curriculum to be prepared for challenging postsecondary engineering and technology problems; and build solid technical writing, comprehension, calculation, problem-solving, and technical skills. Students are encouraged to take relevant math and science courses, such as advanced algebra, chemistry, calculus, geometry, trigonometry, physics, design, and engineering concepts.

PATHWAY COURSES

Foundations of Engineering and Technology
Engineering Concepts
Engineering Applications

CAREER CHOICES

Civil Engineer
Designer
Drafter
Electrical Engineer
Industrial Engineer
Machinist
Manufacturing
Materials Engineer
Mechanical Engineer
Quality Control Inspector

INDUSTRY CREDENTIAL (Credential of Value): NOCTI Engineering and OSHA 10

Financial Services



FINANCIAL SERVICES students will focus on recognizing a business opportunity, starting a business, operating and maintaining a business. Students will align business goals that focus on planning, organizing, coordinating, and controlling the resources needed to produce and provide goods and/or services that lead to owning and operating a small business. Methods for measuring the financial performance of financial institutions and investments are also analyzed.

PATHWAY COURSES

Introduction to Business and Technology
Financial Literacy
Banking, Investing and Insurance

CAREER CHOICES

Accountant
Auditor
Business Teacher
Claims Adjuster
Financial Project Specialist
Financial Planner
Insurance Sales Agent
Research
Sales and Service

INDUSTRY CREDENTIAL (Credential of Value): NOCTI Financial & Investment Planning

Healthcare - Biotechnology Research and Development



HEALTHCARE - BIOTECHNOLOGY RESEARCH AND DEVELOPMENT students will gain a broad understanding of the fundamentals of biotechnology and the impact on society. The knowledge and skills in this pathway provide a basic overview of current trends and careers in biotechnology, with an emphasis on basic laboratory skills, along with the business, regulatory, and ethical aspects of biotechnology. Additional applications and techniques in biotechnology that expand and increase the student's comprehension of how biotechnology utilizes living systems to create products and enhance lives are also an important part of the pathway.

PATHWAY COURSES

Introduction to Healthcare Science
Essentials of Biotechnology
Applications of Biotechnology

CAREER CHOICES

Biological or Medical Illustrator
Crime Lab Technician
Emergency Medical Technician
Field Biologist or Ecologist
Forensic Service Technician
Laboratory Technician
Licensed Practical Nurse
Medical Writer
Mortician
Nutritionist
Pediatric Nurse
Phlebotomist
Radiology Technician

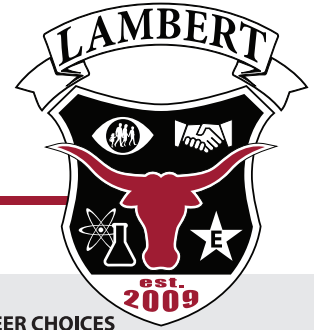
INDUSTRY CREDENTIAL (Credential of Value): Precision Biotechnology

For more education on each pathway, download a complete Program of Study:

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Programs-of-Study.aspx>

CTAE PATHWAY GUIDE

LAMBERT HIGH SCHOOL



805 Nichols Rd, Suwanee, GA 30024 | www.forsyth.k12.ga.us/lhs

Healthcare- Phlebotomy



HEALTHCARE - PHLEBOTOMY students will learn medical-focused anatomy addressing the physiology of each body system, along with the investigation of common diseases, disorders and emerging diseases. Students also become prepared for the phlebotomy technician certification exam upon completion of all required components. Topics covered in this pathway include employability skills, careers, terminology and equipment, safety and compliance, quality assurance, site-specific anatomy, patient preparation for venipuncture, performing of venipuncture, and special processing and transport.

PATHWAY COURSES

Introduction to Healthcare Science
Essentials of Healthcare
Diagnostics Phlebotomy

CAREER CHOICES

Information Nurse Specialists
Medical Lab Assistants
Nuclear Techs
Patient Service Techs (PST)
Physicians
Phlebotomists
Phlebotomy Supervisors
Radiologic Technologists
Registered Nurses
Respiratory Technicians
Other Related Health Science Occupations

INDUSTRY CREDENTIAL (Credential of Value): National Healthcareer Association (NHA) Certified Phlebotomy Technician

Healthcare- Sports Medicine



HEALTHCARE - SPORTS MEDICINE students will learn about the musculoskeletal system, injury assessment, injury prevention, or rehabilitation for careers in sports medicine and rehabilitative services. This pathway enables students to receive initial exposure to therapeutic services skills and attitudes applicable to the healthcare industry. The concepts of anatomy and physiology, assessment, preventative and rehabilitative care are also introduced. Fundamental healthcare skills development is initiated, including medical terminology, kinesiology, patient assessment, record keeping, and basic life support.

PATHWAY COURSES

Introduction to Healthcare Science
Essentials of Healthcare
Sports Medicine

CAREER CHOICES

Athletic Trainer
Chiropractor
Doctor of Osteopathic Medicine
Doctor of Podiatric Medicine
Massage Therapist
Occupational Therapist
Orthopedic Doctor
Physical Therapy Assistant
Physician's Assistant
Radiologist
Radiologist Technician

INDUSTRY CREDENTIAL (Credential of Value): Athletic Training Student Aide

Marketing and Management



MARKETING AND MANAGEMENT students will focus on managing the processes responsible for identifying, anticipating, and satisfying customer requirements in a manner that is profitable for the business. Student skills include management and entrepreneurship, marketing, buying and merchandising, marketing communications and promotion, professional sales, marketing information management and research, channel management, global marketing, and internet/online marketing.

PATHWAY COURSES

Marketing Principles
Marketing and Entrepreneurship
Marketing Management

CAREER CHOICES

Advertising Account Executive
Communications Specialist
Customer Service Representative
Entertainment Marketer
Insurance Agent
Logistics Specialist
Market Research Analyst
Marketing Specialist
Media Buyer
Product Development Management
Public Relations Specialist

INDUSTRY CREDENTIAL (Credential of Value): MBA Standard Marketing Program of Study/End of Program HS Exam

For more education on each pathway, download a complete Program of Study:

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Programs-of-Study.aspx>

CTAE PATHWAY GUIDE

LAMBERT HIGH SCHOOL



805 Nichols Rd, Suwanee, GA 30024 | www.forsyth.k12.ga.us/lhs

Marketing Communications and Promotions



MARKETING COMMUNICATIONS AND PROMOTIONS students will focus on the performance of key responsibilities required in a retail environment and develop skills in pricing, visual merchandising, advertising, special promotions, professional sales, and customer service. They will also better understand the communication aspects of business in relation to customer/consumer relationships. Students develop knowledge and skills in advertising, direct marketing, public relations, sales promotions, and digital marketing communications.

PATHWAY COURSES

- Marketing Principles
- Promotional and Digital Marketing
- Integrated Marketing Communications

CAREER CHOICES

- Advertising and Promotions Manager
- Advertising Sales Agent
- Green Marketer
- Market Research Analyst
- Marketing Manager
- Marketing Strategist
- Public Relations Specialist
- Sales Manager
- Sales Representative

INDUSTRY CREDENTIAL (Credential of Value): MBA Standard Marketing Program of Study/End of Program HS Exam

Nutrition and Food Science



NUTRITION AND FOOD SCIENCE students will focus on healthy food and lifestyle choices. Students will investigate the interrelationship of food, nutrition and wellness to promote good health. The most common nutritional concerns, their relationship to food choices and health status and strategies to enhance well-being at each stage of the lifecycle are also emphasized, and students will evaluate the effects of processing, preparation, and storage on the quality, safety, wholesomeness, and nutritive value of foods.

PATHWAY COURSES

- Food, Nutrition, and Wellness
- Food for Life
- Food Science

CAREER CHOICES

- Chef and Head Cook
- Dietician/Nutritionist
- Food Inspector
- Food Scientist and Technologist
- Food Services Manager
- Geriatric Food Designer
- Health Educator

INDUSTRY CREDENTIAL (Credential of Value): ServSafe Food Safety Handler Certification

Sports and Entertainment Marketing



SPORTS AND ENTERTAINMENT MARKETING students will learn about the major segments of the sports and entertainment industry and the social and economic impact the industry has on the local, state, national, and global economies. The products and services offered to consumers and the impact of marketing on these products and services are examined. Students will also have opportunities to develop managerial and analytical skills and deepen their knowledge in sports/entertainment marketing.

PATHWAY COURSES

- Marketing Principles
- Introduction to Sports and Entertainment Marketing
- Advanced Sports and Entertainment Marketing

CAREER CHOICES

- Agent
- Communications Specialist
- Customer Service Representative
- Demonstrator and Product Promoter
- Entertainment Marketer
- Entrepreneur
- Market Research Analyst
- Marketing Specialist
- Media Buyer
- Product Development Management
- Public Relations Specialist

INDUSTRY CREDENTIAL (Credential of Value): MBA Standard Marketing Program of Study/End of Program HS Exam

For more education on each pathway, download a complete Program of Study:

<https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Programs-of-Study.aspx>