

# CTAE PATHWAY GUIDE

## LAMBERT HIGH SCHOOL



805 Nichols Rd, Suwanee, GA 30024 | [www.forsyth.k12.ga.us/lhs](http://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

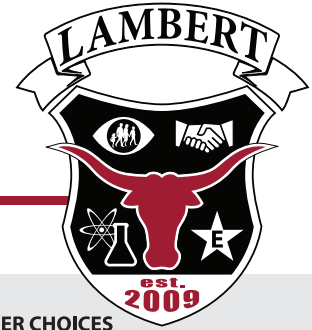
**INDUSTRY CREDENTIAL (Credential of Value): Not Yet Approved by the Georgia Department of Education**

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

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### 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, as well as knowledge of computer operating systems, programming languages, and software development required of 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 Engineers  
Computer Network Architects  
Computer Programmers  
Computer System Analysts  
Database Administrators  
Information Security Analysts  
Information Systems Managers  
Network Administrators  
Software Developers  
Software Engineers  
Video Game Designers

**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

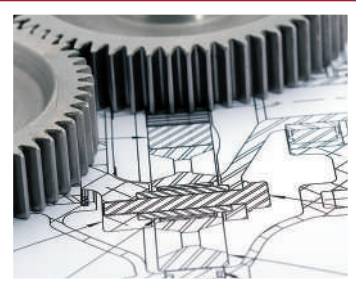
Introduction to Culinary Arts  
Culinary Arts I  
Culinary Arts II

#### 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**

### 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**

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### 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

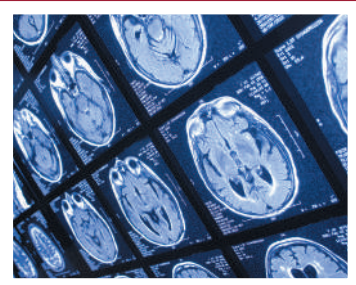
Introduction to Business and Technology  
Financial Literacy  
Banking, Investing and Insurance

#### 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



**HEALTHCARE - BIOTECHNOLOGY** 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**

### 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**

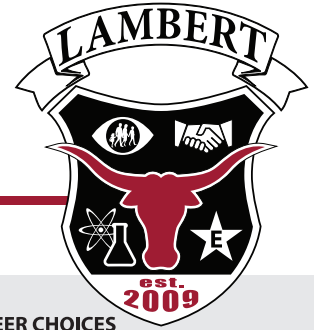
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### Healthcare- Sports Medicine



**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**

### 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 Agents  
Green Marketers  
Market Research Analysts  
Marketing Managers  
Marketing Strategists  
Public Relations Specialists  
Sales Managers  
Sales Representatives

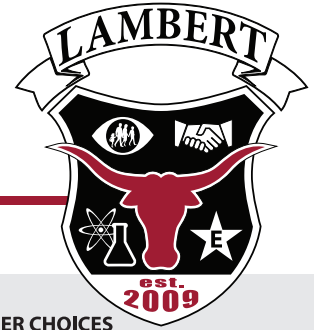
**INDUSTRY CREDENTIAL (Credential of Value): MBA Standard Marketing Program of Study/End of Program HS Exam**

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### Nutrition and Food



**NUTRITION AND FOOD** students focus of the pathway is centered 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**

### Teaching as a Profession



**TEACHING 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

- Examining the Teaching Profession
- Contemporary Issues in Education
- Teaching as a Profession Internship

#### 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)**

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