CAREER & TECHNOLOGY EDUCATION

Career and Technical Education (CTE) courses help students develop marketable job skills and earn national industry certifications needed to achieve their occupational goals. The purpose of career & technology courses is to prepare young people for initial entry into employment in specific occupations or closely related trade, industrial, technical or service fields. CTE courses are two periods long and the complete program lasts two years. Career and Technical Education (CTE) programs take an end of the school year assessment as outlined by Mississippi Department of Education (MDE). Programs offered to Biloxi High students are listed below.

*Automotive Service I

Grade Level 10-11 2 Credits Course# 997000 Automotive Service Technology I is an introduction to shop operations, safety tools and equipment, and preparing the vehicle for both service and the customer. Automotive Service topics taught in this course

include: engine repair, manual and automatic transmissions, basic electrical/electronic systems, and an introduction to disc brakes, drum brakes, and antilock brakes.

*Automotive Service II Prerequisite: Automotive Service I

Grade Level 11-12 2 Credits Course# 997001

Automotive Service Technology II introduces students to the more advanced topics of complete Electrical/Electronic Systems, Engine Performance, Steering and Suspension, and Automotive Heating and Air. Students in this course have the opportunity to earn multiple ASE (Automotive Service Excellence) student certifications.

*Business, Marketing, & Finance I

Grade Level 10-11 2 Credits Course# 992004 Business, Marketing, & Finance I covers the fundamentals of business and marketing. It begins with the basics of workplace safety, ethics, and leadership. Students are introduced to business finance, economics, and cover microeconomics as well. Major topics of study in this course are career readiness,

economics, and cover microeconomics as well. Major topics of study in this course are career refoundations of marketing, market research and analysis, and entrepreneurship.

*Business, Marketing, & Finance II

Grade Level 10-12

Prerequisite: Business, Marketing, & Finance I

2 Credits

Course# 992005

Business, Marketing, & Finance II focuses on finance and management. It begins with a brief review of safety and other topics from the first year. Students will continue their study of economics with topics on international economics and macroeconomics. The majority of this course is spent on financial and managerial accounting, budgets, forecasting in finance, applied human resource management, strategy, and operations management. Personal finance topics on purchasing, financial institutions, credit, and risk management are also covered. *Note: completing Business, Marketing & Finance I & II can suffice for the required Economics credit.*

*Construction I

Grade Level 10-11 2 Credits Course# 993101

Construction I introduces students to fundamentals of construction safety, tools, math, and blueprint reading and basic carpentry, electrical, masonry, and plumbing skills. Students who pass the end of year national certification exam will earn the NCCER (National Center for Construction Education & Research)

Core Curriculum credential.

*Construction II: Carpentry <u>Prerequisite: Construction I</u>

Grade Level 11-12 2 Credits Course# 993110

Construction II: Carpentry course consists of an in-depth study of basic safety, construction math, materials, wall and ceiling framing; room framing; windows and doors; and stairs, and construction essentials. Students who pass the end of year national certification exam will earn the NCCER Carpenter Level One credential.

*Culinary Arts I

Grade Level 10-11 2 Credits Course# 996000

Culinary Arts I presents the foundational skills necessary in the foodservice industry and covers the history and overview of the industry, safety and sanitation, standardized recipes, culinary math, equipment, and popular techniques used. Students will learn techniques for various food presentations such as stocks, sauces, soups, basic baked goods, fruits, vegetables, potatoes, and grains. Basic communication and customer service skills, management essentials, and a career readiness section is taught to prepare students for advancement in the industry. Students who adequately master the competencies in this course will be well prepared to earn the ServSafe Food Handler certification.

*Culinary Arts II <u>Prerequisite: Culinary Arts I</u>

Grade Level 11-12 2 Credits Course#996001

Culinary Arts II students are exposed to basic nutrition and food preparation skills for dishes with eggs, dairy products, breakfast foods, sandwiches, salads, garnishes, meat, poultry, seafood, desserts, and more complex baked goods. Also presented in the course is the detailed overview and hands-on practice of culinary business skills, employability preparation, résumés, and more. Students who pass the end of year national certification exam will earn the ServSafe Manager certification.

*Drafting I

Grade Level 10-11 2 Credits Course #994300

Architectural Design and Drafting I is the entry level course of the secondary Architecture & Drafting program. Students will gain foundational competencies related to orientation, safety, leadership and personal development, and drafting and CAD (Computer-aided design) skills. Other topics presented during the course include multi-view drawing, isometric drawing, and sectional views.

***Drafting II** Prerequisite: Drafting I

Grade Level 11-12 2 Credits Course# 994301

Architectural Design and Drafting II is the exit level course of the secondary Architecture & Drafting program. Students will continue to gain higher-level foundational competencies related to orientation, safety, advanced leadership and personal development, architectural drafting and CAD skills. These skills will include floor plans, elevations, foundations, and sections. Students are also exposed to local industry professionals in the Drafting, Architecture, and Shipbuilding industries.

*Early Childhood I

Grade Level 10-11 2 Credits Course# 996200

Early Childhood I begins with an introduction to personal and professional preparation for continued education, training, and careers in early childhood. Major topics of study in this course are history and trends of early childhood education, stages of child development, ranging from birth through age five, and children's health and safety. Students are introduced to MSDH (MS Department of Health) Guidelines

and Regulations Governing Child Care Facilities. Other topics covered are related to the importance of observing and assessing children. Methods of child guidance techniques are also introduced in this course. Participation in a student organization is ongoing. Students will participate in field experience, internships, and job-shadowing.

*Early Childhood II Prerequisite: Early Childhood I

Grade Level 11-12 2 Credits Course# 9962001

Early Childhood II focuses on curriculum planning and the development of age-appropriate activities and lesson plans that encompass all areas of child development and administration and management techniques needed in order to operate a successful, quality child care facility. Other major topics covered in this course are related to state licensing requirements for child care facilities, management principles as a center director (including responsibilities regarding management of personnel, the facility's physical indoor and outdoor space, inventory, record-keeping, accreditation, parental involvement, marketing, budgeting, and maintaining a healthy, effective learning environment). Students will participate in field experience, internships, and job-shadowing. Students will also continue to develop skills toward meeting requirements for the CDA (Child Development Associate) credential.

*Engineering & Robotics I

Grade Level 10-11 2 Credits Course# 994000

Engineering & Robotics I teaches students the history of engineering and the careers associated with the field. The students will learn the foundations and fundamentals of robotics, electronics, engineering and materials. This course also teaches technical writing, presenting, and project management. Students will learn the engineering design process, and the steps one follows for successful design planning. Students are introduced to the advanced concepts of 3-D sketching and modeling with CAD software. This course focuses on quality control and the benefits of engineering failure.

*Engineering & Robotics II <u>Prerequisite: Engineering & Robotics I</u>

Grade Level 11-12 2 Credits Course#994001

Engineering & Robotics II is a comprehensive course that focuses on the four systems: electrical, fluid, mechanical, and thermal. It also introduces students to Computer Integrated Manufacturing, or how robotics and drafting work together to create products. This course teaches students the concepts of digital electronic control system technology, focusing on electronics, gates, and truth tables. Students will also learn valuable workforce readiness skills and participate in activities that deal with advanced concepts of programming robotic equipment. *Note: May count as two elective credits or two science credits for graduation.*

*Health Science Core Prerequisite: Successfully completed Algebra I & Biology

Grade Level 10-11 2 Credits Course#995100

Health Science Core introduces students to careers available in the allied health field, basic anatomy and physiology, and basic patient care skills. Upon completion of this course, students will be trained to be entry-level general basic health-care assistants and trained in CPR and first aid. Students will be able to make an informed choice of a health occupation that they plan to pursue. This course offers 2 Carnegie units. Students who complete Health Sciences I may count one of the credits earned in this course as one science credit toward graduation requirements if they complete both years of the Health Sciences program. *Note: This course will be accepted in lieu of the required health credit for graduation*.

*Healthcare & Clinical Services

Prerequisite: Health Science Core

Grade Level 11-12 2 Credits Course# 995101

Healthcare & Clinical Services exposes students the theory and applied tasks related to careers within health care. This course covers topics such as human growth and development, health informatics, information technology, and therapeutic and rehabilitative services. Other topics include medical and emergency services, mental health, and pharmacological and nursing services. Note: May count as two elective credits or the completion of Healthcare I & II can count as one (1) science credit for graduation.

*Hospitality Management I

Grade Level 10-11 2 Credits Course# 992100

Hospitality Management I introduces students to the hospitality and tourism industry and identifies some of the current and future trends affecting the hospitality and tourism industry and the impact this industry has on society and the global economy. Students will explore hospitality and tourism career opportunities and understand the skills and knowledge required to succeed in this field and the importance of offering outstanding customer services. Students will learn how food and beverage services function within the industry and the proper techniques used to set up banquets, catering functions, and other special events. Students will gain an understanding of how resorts, cruise lines, recreational vehicles, and tent camping are part of the hospitality industry. The course also covers the main operational areas found in most lodging properties and the importance of adhering to safety policies and procedures to maintain a safe and secure environment for employees and guests. Students learn the role of sales and marketing in the hospitality and tourism industry.

*Hospitality Management II Prerequisite: Hospitality Management I

Grade Level: 11-12 2 Credits Course# 992101

Hospitality Management II provides an overview of the new technologies used to enhance productivity and competitiveness in the hospitality and tourism industry. Students will learn management's role in sales and marketing and the employability skills needed to be successful in the workforce.

*Welding I

Grade Level 10-11 2 Credits Course# 993300

Welding I focuses on the NCCER Learning Series Core curriculum and SMAW (Shielded Metal Arc Welding). Students will leave the class with a firm foundation of knowledge in the areas of employability skills, safety, and basic tool knowledge. Additionally, students will learn Oxyfuel Cutting fundamentals. Students will cover proper equipment setup, safety measures, and correct welding techniques. Students who pass the end of year national certification exam will earn the NCCER Core Curriculum credential.

*Welding II Prerequisite: Welding I

Grade Level 11-12

2 Credits

Course# 993301

Welding II focuses on specialized PAC, CAC, and advanced techniques used in SMAW. Additionally, this course will offer students the opportunity to examine GMAW (Gas Metal Arc Welding) and FCAW (Flux-cored Arc Welding). Additionally, students will earn about GTAW (Gas Tungsten Arc Welding). Students will learn safety measures, setup procedures, and welding techniques for each type of welding. Students who pass the end of year national certification exam will earn the NCCER Welding Level One credential and AWS-SENSE compliance certificate.

*Work Based Learning (Shipbuilding Academy)

Prerequisite: CTE program completer or in 2nd year of CTE program.

Grade Level: 12 2 Credits Course#995010

Work Based Learning gives Mississippi high school students the opportunity to earn academic credit for their authentic work experiences at Huntington-Ingalls Shipbuilding Academy. To receive credit, students must be enrolled in the WBL course and meet all course requirements, including attending work experience each day at Huntington-Ingalls. *Note: this course can suffice for the required College & Career Readiness credit.*