

Course Descriptions **Added After Printed Catalog**

CNBT 2317 Green Building

Methods and materials used for buildings that conserve energy, water, and human resources. Lab required. Prerequisites: DFTG 1309, INDS 1371, and INDS 1373. 3 credit hours. (W)

DSAE 1340 Diagnostic Electrocardiography

Cardiac testing including the techniques and interpretation of patient physical assessment. Covers electrocardiography, stress testing, Holter monitoring, vital signs, and cardiovascular pharmacology. Lab required. Prerequisite: Current Healthcare Provider Cardiopulmonary Resuscitation (CPR) Certification from American Heart Association (AHA). 3 credit hours. (W)

ECRD 1111 Electrocardiography

Fundamentals of cardiovascular anatomy and physiology. Includes basic electrocardiography procedures, interpretation of basic dysrhythmias, and appropriate treatment modalities. Prerequisite: Current Healthcare Provider Cardiopulmonary Resuscitation (CPR) Certification from American Heart Association (AHA). Prerequisite/Concurrent enrollment: DSAE 1340. 1 credit hour. (W)

HART 1475 Solar Cell and Array Certification Training

Review of Solar Cell and Array concepts and principles in preparation for sitting for a certification examination administered by an outside organization or agency. The course includes National and Local Electrical Code requirements. Lab required. Prerequisites: CETT 1403 and MATH 1314, or consent of Program Director. 4 credit hours. (W)

HART 2472 Alternative Energy Perspectives, Energy Sources, Energy Storage, and Energy Distribution

The course covers principles of alternative/renewable energy technologies (e.g. Solar Electrical Energy Generation, Solar Thermal Energy Generation, Wind Energy Generation, Geo-Thermal Energy Generation). Each alternative is placed in the proper context of the energy equation. Traditional energy sources (e.g. coal, oil, natural gas, hydropower, nuclear) are described and contrasted so that the student sees costs and benefits of both alternative and traditional energy sources. Energy Storage and Energy Distribution is covered as it pertains to each energy technology. Lab required. Prerequisites: MATH 1314 and SMFT 1471, or consent of Program Director. 4 credit hours. (W)

INDS 1280 Cooperative Education - Interior Design - Green Design

Career related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Contact the Cooperative Work Experience Office. 2 credit hours. (W)

INDS 1375 Green Building Certification Training

The course provides a review of Green Building Certification and the Principles involved in Green Building Certification in preparation for sitting for a certification examination administered by an outside organization or agency. Lab required. Prerequisites: DFTG 1309 and INDS 1371. 3 credit hours. (W)

INDS 2374 Sustainable Living

The course provides an introduction to sustainable thinking toward Green Built Environment. Emphasis is placed on: analyzing the Indoor Environmental Quality, the effects of Indoor Air Quality on health and the well being of the occupants. The course strives to evaluate the relationship between humans and natural resources. Lab required. Prerequisites: DFTG 1309, INDS 1371, and INDS 1373. 3 credit hours. (W)

ITSY 1400 Fundamentals of Information Security (Security +)

An introduction to information security including vocabulary and terminology, ethics, the legal environment, and risk management. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning, policies and controls is also discussed. Lab required. Prerequisite: ITNW 1358. 4 credit hours. (W)

ITSY 2341 Security Management Practices

Replaces ITSY 2441

In-depth coverage of security management practices, including asset evaluation and risk management; cyber law and ethics issues; policies and procedures; business recovery and business continuity planning; network security design; and developing and maintaining a security plan. Lab required. Prerequisite: ITSY 2300 or consent of Program Director. 3 credit hours. (W)

ITSY 2572 Certified Information Systems Security Professional (CISSP) Common Body of Knowledge Domain Instruction

An in-depth study of the 10 domains which make up the Common Body of Knowledge (CBK) of information security professionals. The course is designed to instruct individuals to implement solid security practices, perform risk analysis, identify necessary countermeasures, and help the enterprise as a whole protect its facility, network, systems, and information. Prerequisites: ITSY 1400 and ITSY 2300 or equivalent experience and consent of Program Director. 5 credit hours. (W)

SMFT 1370 Introduction to Silicon Solar Cell Engineering

The chemistry, device physics, and materials science of Photovoltaic Solar Cell technology which results in the production of electricity from sunlight is covered. An overview of the process flows used to manufacture solar cells, the resulting device characteristics, the variety of solar cell structures and the solid state electronics characterization of the structures is presented. The course is taught from an operations perspective using an appropriate level of mathematics for comprehension. Lab required. 3 credit hours. (W)

PLAB 1323 Phlebotomy

Skill development in the performance of a variety of blood collection methods using proper techniques and standard precautions. Included vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, patient identification, specimen labeling, quality assurance, specimen handling, processing, accessioning, professionalism, ethics, and medical terminology. Lab required. Prerequisite: Current Healthcare Provider Cardiopulmonary Resuscitation (CPR) Certification from American Heart Association (AHA). Corequisite: PLAB 1360. 3 credit hours. (W)

PLAB 1360 Clinical Phlebotomy

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by clinical professional. Prerequisite: Current Healthcare Provider Cardiopulmonary Resuscitation (CPR) Certification from American Heart Association (AHA). Corequisite: PLAB 1323. 3 credit hours. (W)

SMFT 1372 Introduction to Silicon Solar Cell Manufacturing

The course covers the fundamentals of silicon Photovoltaic Solar Cell fabrication from ingot to the final solar cell array. The basic chemistry, physics, and materials science of the fabrication process is presented. The course is taught from an operations perspective using an appropriate level of mathematics for comprehension. Lab required. 3 credit hours. (W)

SMFT 1374 Introduction to Materials Technology, Measurement Technology and Characterization Methods Used in Semiconductor Solar Cell Manufacturing

The course will include an in-depth coverage of materials measurement techniques, statistical process control/capability analysis, six sigma process characterization, and FEMA from the perspective of Photovoltaic Solar Cell materials characterization, electrical characterization and optical characterization technology and techniques. The course is taught from an operations perspective using an appropriate level of mathematics for comprehension. Lab required. Prerequisites: SMFT 1370 and SMFT 1372, or consent of Program Director. 3 credit hours. (W)

SMFT 1471 Fundamentals of Silicon Solar Cell Engineering

The chemistry, device physics, and materials science of Photovoltaic Solar Cell technology which results in the production of electricity from sunlight is covered. An overview of the process flows used to manufacture solar cells, the resulting device characteristics, the variety of solar cell structures and the solid state electronics characterization of the structures is presented. The course is taught from an engineering perspective using an appropriate level of mathematics for the engineering models presented. Lab required. Prerequisite: MATH 1314 or consent of Program Director. 4 credit hours. (W)

SMFT 1473 Fundamentals of Silicon Solar Cell Manufacturing

The course covers the fundamentals of silicon Photovoltaic Solar Cell fabrication from ingot to the final solar cell array. The basic chemistry, physics, and materials science of the fabrication process is presented. The course is taught from an engineering perspective using an appropriate level of mathematics for the engineering models presented. Lab required. Prerequisite: MATH 1314 or consent of Program Director. 4 credit hours. (W)

SMFT 1475 Materials Technology, Measurement Technology, and Characterization Methods Used in Semiconductor Solar Cell Manufacturing

The course will include an in-depth coverage of materials measurement techniques, statistical process control/capability analysis, six sigma process characterization, and FEMA from the perspective of Photovoltaic Solar Cell materials characterization, electrical characterization and optical characterization technology and techniques. . The course is taught from an engineering perspective using an appropriate level of mathematics for the engineering models presented. Lab required. Prerequisites: SMFT 1471 and SMFT 1473, or consent of Program Director. 4 credit hours. (W)

SMFT 2370 Semiconductor Solar Cell Manufacturing Facilities, Methods, and Safety

The course describes the facilities in which semiconductor solar cells are manufactured and the requirements for cleanliness in the facilities. The materials used to fabricate solar cells are described along with the safety implications of utilizing these materials. Methods of manufacturing work flow and the facilitization/use of vacuum systems, continuous flow fabrication systems and industrial test equipment are discussed in detail. Lab required. 3 credit hours. (W)

SMFT 2379 Advanced Topics in Solar Cell Design

The course reviews current advanced topics in solar cell design from the current literature, current conference records and current workshops. Relationships between the customary approaches in production and the advanced designs are sought and are rendered. Discussions of the production worthiness of the advanced designs result in technical assessment of the design's worthiness for fabrication and a cost benefit analysis. Lab required. Prerequisite: MATH 2413 or consent of Program Director. 3 credit hours. (W)

SMFT 2471 Advanced Solar Cell Design and Engineering

In-depth coverage of advanced semiconductor solar cell structures incorporated in industrial production today, in process development for tomorrow and in the feasibility and concept phase for the future. Lab required. Prerequisite: MATH 2413 or consent of Program Director. 4 credit hours. (W)

SPCH 1144 Forensics Activities I

This course consists of laboratory/practicum experience for students who participate in the preparation of forensic activities. 1 credit hour.

SPCH 2335 Argumentation and Debate

This course introduces the students to various argumentation techniques. The student will learn basic research skills and methods of cataloging evidence. The student will learn to organize and present ideas in effective communication paradigms. Individual debate and team formats will be demonstrated. 3 credit hours.