

# Skills **Development** Training Program for the American Centrifuge Facility, a Division of USEC, Inc.

Not only will individuals who complete the 240 hours of training be prepared to work at USEC Inc.'s American Centrifuge Facility, they will be among the first in Ohio to earn certification from the national Manufacturing Skill Standards Council, indicating they possess the core skills and knowledge companies demand of their employees in the 21st century.

## Ohio University-Chillicothe Course Description

### Physical Science (1 of 3 required components)

The Physical Science training offered by Ohio University-Chillicothe is designed to provide the individual with the knowledge necessary to understand selected concepts and successfully apply them to the job. In this course, the student will be provided with a basic understanding of the **fundamental concepts of chemistry** including atomic structure, compound formation, properties and reactions in solutions, acids and bases, and chemical equations. The **basic physics** portion of the course covers Newton's Laws of motion, basic properties of magnetic fields EM radiation, mechanical phenomena, and an introduction to the first and second laws of thermodynamics. The course includes; report of student progress, and exit exam.

This open enrollment non-credit 60-hour course (30-hours Fundamental Concepts of Chemistry and 30-hours Physics) will be delivered at the OSU South Centers in Piketon.

**Prerequisite:** Compass Test- *Algebra General* indicates Tier I Math

**Cost:** \$935

**Registration Deadline:** August 10, 2009

**Location:** OSU South Centers, 1864 Shyville Rd., Piketon, OH 45661

**Dates/Times:** Thursdays, 5:00-9:00 pm August 20 – December 10, 2009

**Instructor:** Roger Smith

### Class Schedule

August	20	Introduction, Matter
August	27	Elements Atomic Theory
September	3	Atomic Theory
September	10	Bonding
September	17	Formulas, Formula Weights
September	24	Chemical Reactions
October	1	Nuclear Chemistry
October	8	Exam
October	15	Newton's Laws of Motion
October	22	Newton's Laws of Motion
October	29	Introduction to the First Law of Thermodynamics

November	5	Introduction to the Second Law of Thermodynamics
November	19	EM Radiation
December	3	Nuclear Physics
December	10	Final Exam

**Grading System:**

Attendance is very important as this course is fast paced and sequential in nature therefore, attendance will be considered when determining the final grade and attendance will also be recorded in percentage format.

Homework problems will be assigned and solutions discussed during the following class period.

All Quizzes and Exams are based on practical real world applications.

Consideration for college credit will be discussed at a later date.

The final course grade will be determined as follows:

Midterm Exam.....	30%	90 – 100% ...	A
Quizzes.....	15%	80 – 89% .....	B
Home Work.....	15%	70 – 79% .....	C
Final Exam.....	30%	60 – 69% .....	D
Attendance.....	10%	Below 60%...	F
Total.....	100%		



**Cancellation Policy**

Ohio University reserves the right to cancel courses when the enrollment is too low to make the course feasible. Participants who have registered for those courses will be given a full refund of fees paid or may transfer fees to another class in the same terms. In the event of inclement weather, please listen to your local radio station for cancellation announcements. We also make every attempt to notify you of emergency cancellations by phone.