General Clinical Competencies

I. Patient Care (compassionate, appropriate and effective for the treatment of health problems and the promotion of health)

A. Develop proficiency in the major types of clinical encounters in Occupational and Environmental Medicine including acute injury management, fitness for duty and return to work, certifications (CDL and others), surveillance, drug and alcohol medical review officer, disability assessment, executive physical and health promotion, preplacement and consultations as to causation, management and impairment.

B. Participate in several surveillance programs, develop and implement at least one new surveillance program.

C. Manage the health status of individuals who work in diverse work settings.

D. Develop proficiency in repair of lacerations, in slit-lamp examinations, and in removal of foreign bodies from the cornea.

E. Develop and carry out health care plans using appropriate clinical guidelines in coordination with attending occupational physicians including communicating work restrictions to management for job placement and playing an active role in the overall case management of occupational injuries and illnesses.

F. Recognize outbreak events of public health significance and apply screening methods to detect substance abuse and other potential behavioral problems affecting worker performance.

G. Provide patient care that is compassionate, appropriate, and effective for the treatment of occupational and environmental medicine health problems and for the promotion of general health.

II. Medical Knowledge (knowledge about established and evolving biomedical and cognate e.g. epidemiology and social-behavioral sciences and application of this knowledge to patient care.)

A. Demonstrate knowledge about established and evolving biomedical, clinical toxicologic, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

B. Become familiar with the causation, diagnosis management and prevention of the common and rarer occupational injuries and diseases seen in the practice of occupational and environmental medicine.

C. Enhance knowledge of systemic pharmacotherapy, and minor surgical procedures including local injections for musculoskeletal conditions.

D. Enhance knowledge of scientific underpinnings and interpretation of laboratory test results used in occupational medicine including audiometry, drug and alcohol testing, spirometry and other pulmonary function measurement, imaging procedures, patch testing, toxicologic testing, Functional Capacity Evaluations, EMG/NCV Reports, MSDS Sheets, and the interpretation of industrial hygiene data and toxicologic information.

III. Practiced Based Learning and Improvement (able to investigate and evaluate patient care practices, appraise and assimilate scientific evidence, and improve patient core practices)

A. Critically appraise and assimilate scientific evidence from current medical literature.

B. Analyze knowledge base in the full spectrum of the practice of occupational and environmental medicine; identify areas for improvement.

C. Use information technology to broaden skills and knowledge in occupational and environmental medicine.
IV. Interpersonal Skills and Communication (interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families and professional associates)

A. Work effectively with other members of the clinic team including physicians, nurses, medical assistants, therapists, administrators, and support staff.

B. Demonstrate effective interpersonal and communication skills with patients, professional associates, primary care physicians and specialists in other disciplines, plant supervisors and management, union officials and public health and workers compensation insurance representatives.

C. Provide accurate and complete documentation of diagnosis, management and causation including that required for workers compensation and legal purposes.

D. Demonstrate ability to write effective reports and to understand and apply the principles underlying Independent Medical Examinations and impairment ratings.

E. Teach occupational and environmental medicine to professional audiences including the use of power point presentation software.

F. Appropriately report outcome findings and surveillance evaluations to affected workers and management.

V. Professionalism (commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to a diverse patient population)

A. Carry out all expected professional responsibilities with sense of responsibility, and appropriate time management, prioritization and planning.

B. Display respect and altruism.

C. Adhere to ethical principles.

D. Be sensitive to cultural, age, gender and disability issues.

E. Demonstrate conflict resolution and problem solving skills.

F. Develop skills in time management, planning, work prioritization and follow through to ensure completion of tasks and projects.

VI. Systems-based Practice (awareness and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value)

A. Demonstrate an awareness and responsiveness to the role of occupational and environmental medicine in providing responsive and cost-effective care which improves clinical and productivity outcomes.

B. Make effective use of Employee Assistance Programs, and safety, industrial hygiene and ergonomic resources in the practice of occupational and environmental medicine.

C. Deliver effective and cost-effective care, including through appropriate and effective use of medical system and referral services.

D. Demonstrate the ability to evaluate the effectiveness and cost-effectiveness of interventions on patient outcomes.

E. Apply an understanding of Workers Compensation, Disability and Group Health Insurance in providing optimum medical services for employee populations.

Specific Rotation Competency Objectives
I. The Workplace: Hazard Recognition, Evaluation and Control

A. Recognize major types of Hazards
   1. Physical
2. Chemical
3. Biological
4. Psychosocial

B Perform hazard characterization
   1. Perform walk-through assessment for safety and health
   2. Interpret and appropriately request industrial hygiene surveys

C Interpret existing standards
   1. OSHA safety standards
      a. Hazards communication
      b. Lock-out, tag-out
   2. OSHA PEL
   3. OSHA general duty clause
   4. Unofficial standards such as ACGIH TLVs and BEIs
   5. EPA standards

D Ergonomics
   1. Recognize and evaluate ergonomic hazards
   2. Perform a simple ergonomic job analysis for specific hazards including lifting and
      repetitive motion
   3. Apply corrective workplace design and work practice interventions and controls

E Recognize, evaluate and apply principles of control to physical hazards
   1. Mechanical and electrical hazards
   2. Vibration
   3. Ionizing radiation
      a. Radioactive contamination
   4. Non-ionizing radiation
   5. Lasers
   6. Noise
      a. Sound level measurements
   7. High and low pressure
      a. Dysbarism
   8. High and low temperature
      a. Heat stress

F Hazard Communication
   1. Interpret and advise on content of material safety data sheets (MSDSs)

G Develop and Monitor Medical Programs
   1. Respirator Clearance
   2. Hearing conservation

H Industrial Hygiene Control
   1. Recognize industrial hygiene hazards and principles of general program design
   2. Identify key principles in the collection of industrial hygiene data
   3. Perform an environmental risk analysis
   4. Recommend appropriate personal protective equipment
   5. Assist in development of administrative controls
   6. Recommend the need for engineering controls
   7. Understand the regulatory context
   8. Communicate industrial hygiene findings and their consequences

I Safety and Accident Investigation
   1. Perform an accident investigation using principles of a fault tree

J Workplace Culture
   1. Identify important characteristics of workplace culture at a workplace
   2. Formulate measures to change workplace culture with respect to health and safety

II. The Worker: Disability and Work Fitness

A Disability prevention and management
   1. Demonstrate ability to identify issues early
   2. Recognize risk factors
3. Manage the effects on illness or injury of
   a. Psychological issues
   b. Substance abuse
   c. Family
4. Recommend appropriate accommodations
   a. Permanent
   b. Temporary
5. Develop prevention plan for recovered employees

B Make appropriate recommendations with regard to the Americans with Disabilities Act
   1. Undue risk
   2. Direct threat
   3. Accommodations
   4. Preplacement examinations

C Fitness for Duty and Return to work
   1. Conduct and interpret functional work capacity evaluations
   2. Apply impairment ratings to examinations results
   3. Conduct Department of Transportation (D.O.T.) examinations
   4. Understand Principles Behind Federal Aviation Administration (F.A.A.) examinations
   5. Recognize special needs and make appropriate recommendation with regard to:
      a. heavy exertional work
      b. chemical hazards
      c. hazardous waste
      d. pregnant workers
      e. travel
      f. physical handicaps
      g. injury or illnesses

D Understand and interpret regulations and the role of government agencies
   1. Workers Compensation
   2. D.O.T.
   3. F.A.A.
   4. Family and Medical leave Act (F.M.L.A.)

E Relate recommendations to workplace culture
   1. Develop recommendations which are feasible and likely to succeed in terms of business
      imperatives and organizational culture

F Work/Rest Cycles
   1. Relate effects of shift work on circadian rhythm and sleep/wake cycles
   2. Recommend methods for fatigue reduction in multiple time zone flights
   3. Develop rotating shift schedules

III. Organizational and Health Care Management

A Develop a business plan for an occupational and environmental health service.
B Apply principles of teamwork and diversity in management activities.
C Apply methods of strategic planning in an occupational health setting.
D Work effectively with employee representatives and organized labor.
E Be aware of the goals and major areas of human resource management.
F Audit and review an occupational health program.
G Apply monitoring tools and appreciate the health consequences of performance measurement
   including performance appraisal.
H Communicate effectively with the media
I Market an occupational health program
J Design a program, establish performance indicators, and evaluate effectiveness.
K Adapt behavior to a specific corporate context and culture
L Apply conflict resolution skills in occupational and environmental health settings
Health Administration and Economics

A  Be able to strategically position occupational and environmental health services within an organization's human resource policies and practices

B  Apply principles of quality assurance and management in an occupational health program including: quality management, risk management, demand management, case management, utilization management and practice guidelines

C  Apply a working knowledge to an O.M. program and provide consultation for health care delivery system, insurance concepts and benefit design

D  Develop and monitor cost containment measures

E  Determine the relative merits of outsourcing or in-service provision of occupational and environmental health services

F  Perform a simple cost-benefit analysis for a health measure

IV. Environmental Health and Risk Assessment

A  Perform a Risk Assessment

B  Recognize and apply principles of “Community Right to Know”
   1. Interact positively with community advisory panels

C  Interpret result of Environmental Monitoring

D  Identify and make recommendations concerning human health effects
   1. Pulmonary
   2. Reproductive
   3. Neoplastic
   4. Other

E  Assess and communicate the risks from and make diagnostic evaluations of the health effects from Environmental Exposure
   1. Release if industrial chemicals
   2. Human and animal wastes
   3. Outdoor air pollution
      a. Priority pollutants
   4. Indoor air pollution
   5. Water pollution
   6. Hazardous wastes
      a. Chemical
      b. Radioactive
      c. Infectious
   7. Radon
   8. Household chemicals
   9. Pesticides

F  Hazard Communication
   1. Develop a risk communication program for a specific community and risk

G  Understanding and interpret regulations and the role of government agencies
   1. EPA

H  Understand the role of quality and responsible care in environmental issues

V. Population Based Occupational Medicine

A  Ethics
   1. Address issues related to individual privacy and confidentiality of records
   2. Interpret governmental regulations and make appropriate recommendations
   3. Appreciate and be able to handle different roles including whose agent the physician is under in different circumstances
   4. Address issues contained in a standard code of ethics, e.g., the ACOEM Code of Ethical Practice.

B  Record Keeping
   1. Recognize regulatory requirements for OSHA record keeping

C  Computers and informatics
   1. Be able to utilize the following types of applications in an occupational health setting:
a. Database Management  
b. Spreadsheets  
c. Word Processing  
d. Patient Records  
e. Billing  
f. Performance Tracking  
g. Disability Management  
h. 

D  Health Promotion and Clinical Prevention  
   1. Develop and implement population-based programs in the following areas:  
      a. Fitness  
      b. Health Promotion  
      c. Nutrition  
      d. Smoking Cessation  
   2. Apply health risk assessment tools to populations  
   3. Apply screening to populations  
   4. Develop intervention for targeted high risk groups  

E  Statistics and Epidemiology  
   1. Design a simple epidemiological study  
   2. Interpret the results of an epidemiological study  
   3. Prepare a risk assessment based upon existing data  
   4. Design a medical surveillance program  
   5. Recognize and act upon regulatory reporting requirements  

F  Emergency Planning  
   1. Hazardous materials incidents  
   2. Disaster planning  

G  Employee Assistance Programs  
   1. Recognize behavioral, psychiatric and substance abuse issues in the workplace  
   2. Select appropriate counseling services  

H  Develop and conduct Workplace Health Surveillance  
   1. Medical surveillance programs  
   2. Data analysis of injury and illness experience  
   3. Identify sentinel health events  
   4. Perform simple cluster analysis  
   5. Derive appropriate intervention from surveillance data