# UCSF School of Medicine Predoctoral Disability Curriculum Map July 2009

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## Autism and Disorders of Cognition: What Causes Them and What We Can do to Help.

Lecture.

Brain, Mind, and Behavior. First year. Most recent year offered: 2006-2007

Content: Core

<u>Discipline:</u> Professional Development

## Objective:

- To learn about autism and disorders of cognition: what causes them and what we can do to help.

## **Child Neurology.**

Lecture.

Brain, Mind, and Behavior. First year. Most recent year offered: 2008-2009

Content: Core

**Disciplines:** Neurology, Pediatrics

## Objectives:

- Explain the stereotyped pattern of developmental neurologic milestones.
- Define the types of developmental delay and some causes of delay.
- Define developmental regression, and list 3 disorders that can cause regression.
- Define cerebral palsy.
- Define autism, and list possible causes.

## Clinical Cytogenetics: Chromosomal Abnormalities and Human Diseases.

Lecture.

Cancer, Bench to Bedside. Second year. Most recent year offered: 2006-2007

Content: Core
Discipline: Genetics

- Explain what a karyogram is, how it is prepared and how it is used for diagnosis.
- Describe how to depict an individual's genomic/chromosomal constitution as their karyotype (e.g. 46, XY and, XX are normal male and female karyotypes, respectively).
- Explain the basic system of cytogenetic nomenclature.
- Describe three ways that chromosomes are identified and distinguished from one another.
- Describe three types of chromosomal abnormalities that can be identified by karyotype/karyogram analysis.
- Describe how abnormalities in chromosome number (aneuploidy) and structure (i.e. translocations) occur.
- Give three examples of clinical syndromes that involve aneuploidy.
- Describe the difference between balanced and unbalanced chromosome rearrangements.
- Define reciprocal and Robertsonian translocations.

- Describe the types of cytogenetic changes seen in cancer cells and explain the role of these changes in cancer development and progression.
- Give two examples of specific cytogenetic changes that are seen in particular types of cancer.

## **Reproductive Genetics.**

Lecture and Small Group. Life Cycle. Second year

Most recent year offered: 2008-2009

Content: Core

<u>Disciplines:</u> Genetics; Obstetrics & Gynecology

## Objectives:

- Describe the factors that are important for a successful genetic screening program.
- Describe the differences between population screening and screening based on ethnicity.
- Describe the goals of the newborn screening program.
- List 4 types of metabolic disorders screened for in Newborn screening.
- List 4 necessary criteria for a heterozygote-screening program.
- Name 4 genetic diseases and the ethnic groups at greatest risk for being carriers.
- List 4 ways carriers of genetic disease can avoid having an affected child.
- Describe the controversies involved with cystic fibrosis screening.
- Explain the difference between prenatal screening and diagnostic tests, and describe the risks, benefits and limitations of each.
- Describe two prenatal screening tests and two prenatal diagnostic tests.
- Explain how to interpret the results of a quad screen.
- Explain why age 35 was chosen as the age at which to offer prenatal diagnosis, and why some women may choose otherwise.
- List 6 indications for prenatal diagnosis.
- Give an example of a gene/environment interaction in the etiology of neural tube defects.
- Describe screening methods for neural tube defects.
- Give 2 reasons why it is important to determine if a birth defect in a fetus or child is part of a syndrome.

## A Day in the Life of a Pediatrician.

Lecture.

Life Cycle. Second year

Most recent year offered: 2003-2004

Content: Core

**Discipline:** Pediatrics

- Appreciate key challenges in diagnosing and treating disease in the pediatric population.
- Be able to identify key features of PMH, social history and family history that are unique and important in the management of health and illness of children.
- Consider the influence of cultural and socioeconomic factors on the manifestations of health and disease in children.
- Recognize that symptoms and diseases present differently in children of different ages.
- Recognize the role of growth and development as markers of health and illness in children.
- Recognize that a child's age and developmental status must be taken into account when

taking a history, performing a physical exam and developing a differential diagnosis.

## Human Neural Tube Defects and Open Forms of Spina Bifida.

Lecture.

Life Cycle. Second year

Most recent year offered: 2008-2009

Content: Core

Discipline: Embryology

Objectives:

- Briefly describe the process of primary and secondary neurulation.

- Name 3-4 types of neural tube defects. For each, describe the defect and the most common associated medical problems.

- Describe the epidemiology and treatment of myelomeningocele.

## **Chronic Illness and Disability in Adolescents.**

Lecture.

Life Cycle. Second year.

Most recent year offered: 2008-2009

Content: Core

**Discipline: Pediatrics** 

Objectives:

- Describe the epidemiology of chronic illness and disability in adolescence.
- Describe the effects of chronic illness on pubertal development.
- Describe the effects of chronic illness and disability on psychosocial and sexual development.
- Describe the principles of transition of care for youth with chronic illnesses and disability to adult care providers.
- Describe the factors that contribute to poor adherence to treatment in youth with chronic illness and disability.

## **Caring for Children with Special Needs.**

Small Group.

Life Cycle. Second year.

Most recent year offered: 2004-2005

Content: Core

**Discipline: Pediatrics** 

**Description:** 

This small group session will focus on issues around children with special needs. Specifically, we will address children with physical disabilities, the long-term medical care of children with chronic illness, and some of the ethics around such pediatric cases. The first part will be an interview of a child and/or his/her parent by the faculty. Questions will focus on long term care issues and the impact of disability on the child and the family. Students will have opportunities to ask questions. The second part will be case based discussion using one to two cases of children with special needs. Discussion will focus on long term and dependent care of a child with special needs and the ethical issues surrounding it.

#### Objectives:

- Appreciate the impact a disability or chronic illness may have on a child and a family.

- Describe the medical and social issues surrounding the provision of long-term or dependent care to a child with special needs.
- Describe the ethical dilemmas that arise during the care of a child with special needs.

## Impaired Development as a Sign of Illness.

Small Group.

Life Cycle. Second year.

Most recent year offered: 2008-2009

Content: Core

Discipline: Pediatrics

## Objectives:

- Practice practical skills for organizing information into a logical format and presenting a pediatric case on rounds.
- Identify key differences between the approach to a sick child and the approach to a sick neonate or adult.
- Recognize the significance of speech delay as a sign of underlying illness or deprivation.
- Develop a differential diagnosis for speech delay in a toddler.
- Review the tools available for assessing cognitive, motor and psychosocial development in an infant or toddler.
- Develop an approach to identifying medical conditions that may present with developmental delay.

### Mental Retardation.

Lecture.

Life Cycle. Second year.

Most recent year offered: 2008-2009

Content: Core <u>Discipline:</u> Genetics

- Define mental retardation, using medical and developmental parameters.
- Describe the normal population distribution of cognitive function and explain how the definitions and tools used to define mental retardation influence the epidemiology.
- Explain how a specific diagnosis of mental retardation and its cause impacts on the prognosis and treatment of a given patient.
- Describe features of a medical history and physical exam that are important in making a specific diagnosis of the etiology of mental retardation.
- List aspects of history and physical exam that suggest a genetic cause of mental retardation.
- Name three categories of genetic causes of mental retardation and give an example of each.
- Name three categories of non-genetic (acquired) causes of mental retardation and give an example of each.
- Name and describe an example of a gene/environment interaction that results in mental retardation.
- Provide two examples for which different mutations in a single gene produce distinctly different phenotypic outcomes.
- Describe two types of genetic testing that are aimed at prevention of mental retardation.

- Describe three issues that are important to address in genetic counseling with families of patients with mental retardation.

## Disabilities Curriculum: Care for Patients with Mobility Impairments.

Lecture.

Intersession. Third year.

Most recent year offered: 2008-2009

Content: Core

<u>Discipline</u>: Professional Development

## Objectives:

- Discuss the spectrum of disability who and what are we talking about.
- Understand some challenges commonly encountered by people with mobility-related disabilities when interacting with the health care system.
- Develop appropriate history-taking and physical exam skills to assess mobility.
- Discuss cultural competencies with regard to patients with mobility impairments.
- Develop skills to prescribe the appropriate cane to aid mobility.
- Understand when to refer to physical and occupational therapy.

## Disability Panel Session: Care for Patients with Sensory Impairments.

Lecture.

Intersession 3. Third year.

Most recent year offered: 2008-2009

Content: Core

Discipline: Professional Development

## Objectives:

- Understand some of the day-to-day challenges faced by patients living with disabilities.
- Discuss ways in which disability can shape beliefs and practices about health, illness and health care.
- Develop appropriate history-taking and physical exam skills to understand the role and significance of a disability in the life of a patient.
- Understand some challenges commonly encountered by disabled people while interacting with the health care system.
- Discuss specific cultural competencies, etiquette and clinical accommodations for working with deaf / hard-of-hearing patients and patients with visual impairments.

## "A Life Worth Living" Physician and Patients Attitudes About Disability. Lecture and disabilities/ethics panel.

Intersession. Third year.

Most recent year offered: 2008-2009

Content: Core

Disciplines: Embryology, Obstetrics & Gynecology

- Articulate the 4 major principles of disability studies.
- Understand new research relating to the difference between physician and patient's understanding of life with a disability.
- Articulate how disability studies can be applied to ethical questions in medicine.

- Understand the ethics of prenatal testing and withdrawal of care from a disability studies perspective.
- Discuss how physician attitudes about a "life worth living" can influence our counseling patients about major medical decisions.

## **Developmental Disabilities: Small Group.**

PISCES.

Third year.

Most recent year offered: 2008-2009

<u>Discipline:</u> Medical Education