

## Elective Description

**Campus:** Fargo (ALL)

**Department:** Pediatrics

**Elective/Experience Title:** Pediatric Subspecialty

**Course Number:** PED 9507

**Location of Elective:** Sanford Health & Essentia Health – Fargo, ND

**Preceptor(s):** O. Anim, L. Casas, K. Casas, C. Cleveland, M. Chihak, J. Horner, C. Mauriello, S. Milanovich, C. Miranda, A. Setty, G. Syverson, M. Trefz, A. Thompson, (Sanford)  
C. DeCock, N. Kobrinsky, K. Rauser-Foltz (Essentia Health)

**Period(s) Offered:** all

**Course prerequisites:** Pediatric clerkship

**Number of students per period:** 1-2

**Revised curriculum phase:** 2 & 3

**Purpose:** To provide education and experience in the care of children and adolescents with pediatric subspecialty disorders in 2 two-week blocks selected from Pediatric GI, Pediatric Endocrinology, Medical Genetics, Pediatric Cardiology, Pediatric Rheumatology, Pediatric Neurology, Pediatric Infectious Diseases, Pediatric Allergy/Immunology/Asthma, and Pediatric Hematology/Oncology and Sleep Medicine

**Objectives:** Following successful completion of this elective, the student will be able to:

1. Perform problem and subspecialty specific histories and physical exams.
2. Demonstrate knowledge of the diagnostic evaluation of children with common pediatric subspecialty problems.
3. Formulate treatment plans for children with common pediatric subspecialty problems.

*In addition, for the chosen subspecialty, the student will be able to:*

### **Pediatric GI (Sanford)**

1. Identify the important principles of infant nutritional support.
2. Identify presenting symptoms and signs of abdominal pain, constipation, failure to thrive, inflammatory bowel disease, and celiac disease.
3. Describe the evaluation of a child presenting with jaundice.

### **Pediatric Endocrinology (Sanford)**

1. Demonstrate knowledge of normal and abnormal growth and pubertal development in children and adolescents.
2. Demonstrate a working knowledge of the most common metabolic disorders of childhood.
3. Describe the evaluation of a baby born with ambiguous genitalia.

### **Medical Genetics (Sanford)**

1. Explain basic principles of medical genetics relevant to the clinical setting.
2. Apply the principles of medical genetics to explain the underlying pathogenesis, diagnosis, management, and prevention of pediatric genetic disorders, inborn errors of metabolism and unexplained developmental and growth problems.
3. Discuss the organization of medical genetics services in a rural state such as North Dakota.
4. Provide basic genetic counseling and education to patients and their family members.

### **Pediatric Cardiology (Sanford and Essentia)**

1. Differentiate normal from abnormal common cardiac complaints such as murmurs, chest pain and syncope.
2. Describe the physiology of congenital heart disease lesions such as ASDs, VSDs, and PDAs.
3. Interpret basic electrocardiograms.
4. Describe the role of diagnostic and therapeutic interventions in children with heart disease.

### **Pediatric Rheumatology (Sanford)**

1. Define range of motion of joints at various stages of normal physical development.
2. Differentiate benign, self-limited leg pains from potentially serious ones.
3. Demonstrate the recognition, initial management, and referral decision making in the evaluation of rheumatologic conditions.
4. Demonstrate appropriate ordering and interpretation of common rheumatology labs.

### **Pediatric Infectious Diseases (Sanford)**

1. Perform an appropriate history and physical exam of the pediatric patient with an infectious disease and/or immune disorder.
2. Formulate an appropriate diagnostic evaluation of the pediatric patient with an infectious disease and/or immunological disorder.
3. Formulate an appropriate management plan for the pediatric patient with an infectious disease and/or immunological disorder.

### **Pediatric Allergy/Immunology/Asthma (Sanford)**

1. Identify clinical manifestations of common allergy/atopic conditions.
2. Recognize potential immunodeficiency states.
3. Recognize presenting symptoms, demonstrate physical findings, explain initial evaluation and educate the patient/family regarding childhood asthma.
4. Interpret spirometry results for common pulmonary conditions.
5. Interpret skin test results.

### **Pediatric Hematology/Oncology (Sanford and Essentia)**

1. Recognize and address the emotional needs of the child and family who are experiencing serious and terminal disorders.
2. Demonstrate the ability to formulate the proper diagnostic evaluation and management plan of the pediatric patient with a hematology and/or oncology disorder.

### **Pediatric Sleep Medicine (Sanford)**

1. Recognize and evaluate patients for common sleep disorders, e.g.: insomnia, parasomnia, hypersomnia, narcolepsy, and restless leg syndrome.
2. Identify obstructive sleep apnea and understand its management.

### **Pediatric Neurology (Essentia)**

1. Demonstrate the ability to obtain a complete neurology history, and perform a neurology examination.
2. Generate differential diagnoses of common disorders affecting the nervous system in children.
3. Choose appropriate diagnostic evaluation of children with common neurology problems.
4. Formulate proper treatment plans for children with common neurology problems.
5. Demonstrate basic skills and knowledge in developmental pediatrics.
6. Correlate neurological signs and symptoms with neuroanatomical disorders.

7. Explain the method and purpose of the following electrodiagnostic studies: EEG, ABR, VEP, PSG.

**Instructional Activities:** During this elective, the student will be involved in/experience:

1. The clinical evaluation of both inpatients and outpatients under the direction of the pediatric subspecialist.
2. Observation or assistance with diagnostic and biopsy procedures, as applicable.
3. Call responsibilities with the preceptor, as applicable.
4. Attending assigned lectures and conferences.
5. Discussion with preceptor regarding assigned reading and topics.
6. Review specialty-specific labs tests and diagnostic samples with the preceptor, as applicable

**Criteria for Grading:** During and following this elective, the preceptor will:

1. Utilize the standardized UNDSMHS senior elective evaluation form
2. Evaluate by direct observation the quality of the completed assignments and tasks.
3. Assess by direct observation the quality of discussions and presentations.
4. Evaluate by direct observation and feedback from the health care team and patients the student's professional behavior.
5. Evaluate by direct observation the student's ability to evaluate children with conditions outlined in the subspecialty discipline-specific objectives.
6. The Department Chair will act as head evaluator and assign the final grade based on the evaluations of the subspecialty faculty.