Philippine Pediatric Society, Inc.

A Curriculum for Undergraduate Pediatric Education for Philippine Medical Schools (e-UPEC Manual 2013)

A joint publication of the PPS Undergraduate Pediatric Education Committee and the PPS Council on Subspecialties and Sections

Editors:

Carmelo A. Alfiler, MD
Melflor A. Atienza, MD
Melinda M. Atienza, MD
Milagros S. Bautista, MD

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Dedicated
to

This Generation's
Teachers
and
Learners
of
Pediatrics

and
to

The Filipino Children
of
Today
and
Tomorrow

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NOTICE

The authors and editors of this manual emphasized pediatric disorders and concerns being encountered during the time of publication. Due to epidemiologic changes and dramatic advances in medical diagnosis, evaluation and management, information may be different at a future time.

The Physician is therefore urged to continuously update himself with current trends and developments in Pediatrics. The Teacher is also encouraged to update his syllabus accordingly in consonance with the prevailing epidemiologic picture and emerging health issues.

THE EDITORS

Philippine Pediatric Society, Inc.

FOREWORD

In furtherance of the sole but far-ranging function of the Undergraduate Pediatric Education Curriculum Committee (UPECC) of the Philippine Pediatric Society (PPS), ie., to develop innovative and sustainable programs that will enhance the teaching and practice of Pediatrics in the undergraduate years ensuring a strong foundation in knowledge and clinical skills for the future general practitioner and pediatric specialist/subspecialist, this 2013 edition of the PPS-UPEC Manual saw electronic print twelve (12) years after the first hard copy and four (4) years after the latter's expanded electronic version came out.

The aforementioned outputs spawned a series of innovative teaching and learning modules disseminated to Philippine medical schools and PPS-accredited training programs via seminar-workshops or printed copies --- among them modern curricular concepts, breastfeeding, pediatric neurologic examination, growth and development --- which have contributed greatly to these schools' and hospitals' instructional materials these past years.

This e-UPEC Manual 2013 differs from the past two editions in that (1) two subsections --- Growth and Development and Nutrition/Nutritional Disorders --- are added to the Core Section which previously contained Data Gathering, Recording and Presentation and Pediatric Procedures (now titled under one subsection as Pediatric Diagnosis and Procedures); (2) component members of the PPS Council on Subspecialty Societies and Sections, various PPS-UPEC workshop groups and individual experts/resource persons shared their time and knowledge exhaustively in revisiting and updating instructional designs on Organ System Disorders; (3) Emergency Pediatrics joins the section of Selected Topics for the first time,(4) the topic on Integrated Management of Childhood Illnesses (IMCI) integrates educational vignettes from the World Health Organization and our Department of Health in a major way; (5) outcome-based education as espoused by the Commission on Higher Education (CHED) is adhered to, and; (6) it is a joint publication of PPS-UPEC and the PPS Council on Subspecialties and Sections.

This edition would not have been possible were it not for the unwavering support of the PPS Board of Trustees, now led by Dr. Melinda M. Atienza, the Association of Philippine Medical Colleges Foundation (APMCF) under Dr. Fernando S. Sanchez, Jr., the Professional Regulation Commission Board of Medicine now chaired by Hon. Edgardo T. Fernando, the countless innovative workshop groups since October 2010, the Task Forces and Writing Committees of the subspecialties under the PPS Council on Subspecialty Societies and Sections, and invited contributors.

Most of all, I reserve my heartfelt thanks to the members of PPS-UPEC Committee from 2002 to the present for their commitment to our objectives and action plans, to Prof. Melflor A. Atienza for taking over the teacher-of-teachers/facilitator's/co-editor's role since 2010, to the PPS Secretariat's Regine R. Mendoza and Norberto N. Puñegal, Jr., and to Pharex HealthCorp under President & CEO Tomas Marcelo G. Agana III whose logistical assistance has been unburdening the committee for so many years running.

On everybody's behalf, I hope that the guidelines in e-UPEC Manual 2013 will help promote a better and more rational Philippine child health care in our generation.

CARMELO A. ALFILER, MD
Chair, PPS-UPEC Committee

Philippine Pediatric Society, Inc.

MESSAGE

The internationalization and globalization of medical education has heralded novel approaches to improve the delivery of learning to medical learners. The advent of "inverted curricula or flipped instructional materials" has allowed self-motivated and self-directed learning to future medical professionals. The impact of medical informatics as an instructional tool provided medical educators with an almost limitless resource to innovate strategies of teaching and learning. These dynamics will inevitably redound to better medical schools and hopefully to more competitive future medical professionals.

The Philippine Pediatric Society through its Undergraduate Pediatric Education Curriculum Committee (UPECC) is pleased and proud to offer the "e-UPEC Manual" as an insightful contribution to modern day pediatric education in the undergraduate level combining "theoretical foundations with informatics innovation". This unique teplate will hopefully constructively align the fundamental concepts of pediatric mediicne to the practice of pediatrcis beyond the formative years of formal medical education. This will ensure that what the medical learner learns in theory is what he will apply in practice using web-assisted designs and formats. This attempt towards constructive alignment will undoubtedly strengthen the competencies of medical learners and later medical professionals in the art and science of pediatric practice.

Allow me to express the PPS' sincerest appreciation to the "forces" that facilitated the realization of this document. Professor Carmelo A. Alfiler, former President of the PPS who serves as Chair of the UPECC for the tenacity of spirit and resilience of mind to pursue this endeavour up to its fruition. Professor Melflor A. Atienza of the National Teachers' Training College for serving as the sturdy foundation of the frameworks that led to the completion of this teaching aid. Likewise, gratitude is in order, to the working committees of the different subspecialties PPS Secretariat and our invaluable partners in the professionalization and regulation of pediatric education and practice in the country, namely the Association of Philippine Medical Colleges (APMC) and the Professional Regulation Commission (PRC).

And of course last but not the least, our sincerest thanks go to Pharex Helath Corporation represented by its president CEO Mr. Tomas Marcelo G. Agana III for sharing with the PPS the vision to enlighten, enable, equip and empower the future medical professionals of our country.

MELINDA M. ATIENZA, MD, MHPEd
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MESSAGE

The first curricula in the various medical subjects were developed in January to March 1969 during the preconference seminars of the First National Conference on Medical Education in the Philippines under the auspices of the Association of Philippine Medical Colleges Foundation, Inc.

We, in APMCFI are gratified that in Pediatrics the pediatric faculty of the different schools have been updating the curriculum through the Philippine Pediatric Society E – Undergraduate Curriculum, first in 2001 and now in 2013-2014. This assures that the teaching of Pediatrics in the Philippine schools is abreast with the rest of the world.

Congratulations to the Pediatric faculty who labored to keep Pediatric teaching and practice in the Philippines up-to-date. You are doing a great service to Philippine Medicine and to our society.

Continue the good work.

FERNANDO S. SANCHEZ, JR., M.D., MPH
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MESSAGE

The PPS Undergraduate Pediatric Education Curriculum (PPS-UPEC) Manual 2001 inaugural edition has been an indispensable reference for medical schools in introducing innovations in the pediatric curriculum. It has likewise been used as a guide by the Professional Regulatory Board of Medicine in constructing its table of specifications.

Now, after years of hard work and dedication, another landmark in the history of PPS has been meticulously crafted. I am very impressed with the high quality and standard of pediatric curriculum for medical education that has been presented by this updated edition.

My heartfelt congratulations, especially to the PPS-UPEC Committee for this remarkable work which will go a long way in improving the pediatric education, training and practice of the specialty in our country

MABUHAY!

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Function: To develop innovative and sustainable programs that will enhance the teaching and practice of Pediatrics in the undergraduate years ensuring a strong foundation in knowledge and clinical skills for the future general practitioner and pediatric specialist/subspecialist

Action Plans:
(1) To produce a core syllabus in undergraduate Pediatrics
(2) To introduce guidelines in the teaching and practice of Pediatrics in medical schools relevant to the Philippine setting
(3) To study other strategies/mechanisms by which Philippine Pediatrics can be promoted in a proactive manner as early as in the undergraduate years
(4) To monitor and evaluate periodically the effectiveness and relevance of the above activities

Outputs:
(1) A Curriculum for Undergraduate Pediatric Education for Philippine Medical Schools 2001
(2) Expanded e-copy of the above 2001 UPEC Manual, 2009
(3) Workshops on Innovative Teaching Strategies in Undergraduate Pediatrics, 2010-2012
(4) Teaching-Learning Modules on Breastfeeding, Pediatric NeuroExam, Growth & Development, Nutrition/Nutritional Disorders (hard and e-copies), 2010-2012
(5) Feedbacks on utilization of PPS-UPEC materials, 2010-2012
(6) Workshop on Revisiting 2001 PPS-Undergraduate Pediatric Education Curriculum, 2013
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INTRODUCTION

Undergraduate Pediatric Education Curriculum

The word “curriculum” comes from the Latin word, *currare*, which means “race course.” Zais (1976) defined curriculum as the standardized ground covered by the students in their race toward the finish line. The term “standardized” refers to the planning and decision making involved in curriculum design and implementation, the “ground” pertains to the content and teaching and learning activities, and the “finish line” is the desired outcome (Sana, 2013)

Medical schools adopt the curricular track that best fit their respective mission, vision and goals. Whether these schools follow subject-centered or innovative curriculum, they are expected to produce physicians that are knowledgeable, skilled, dutiful and altruistic (Medical School Objectives Writing Group, 1999).

In line with this, attention has turned to outcome-based education (OBE), an approach to education that focuses on learning outcomes that the students should display at the end of the instruction. These outcomes are the “culminating demonstration of learning” (Spady, 1993).

OBE emphasizes exit learning outcomes and products more than the process, the results rather than the procedures. Such learning outcomes can be expressed in various ways. Smith and Dollase (1999) identified nine abilities expected of medical graduates at the Brown University in Rhode Island. These are:

1. Effective communication
2. Basic clinical sciences
3. Using basic sciences in the practice of medicine
4. Diagnosis, management, and prevention
5. Lifelong learning
6. Self-awareness, self-care, and personal growth
7. The social and community contexts of healthcare
8. Moral reasoning and clinical ethics
9. Problem solving

These learning outcomes are reflected in the instructional designs presented in this e-manual. The components of an instructional design consists of learning objectives, content, suggested teaching and learning activities and suggested evaluation methods (Sana, 2013). The assessment system in OBE is based on the demonstration of achievement of the learning outcomes by the individual student. Hence, there is emphasis on workplace-based assessment (e.g., blinded patient encounter, clinical encounter cards, mini clinical evaluation exercise and multisource feedback).

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GLOSSARY

Bedside teaching	Clinical teaching method that occurs with the actual patient as the focus
Blinded patient encounter	Assessment of a student based on direct observation of an encounter with a patient unknown to the student, to assess data gathering, hypothesis generation, problem solving abilities
CbD	Case-based discussion; a method of clinical evaluation wherein two case records of recently seen patients selected and discussed to assess the student's clinical assessment, investigation, treatment choice and medical record keeping abilities
CEC	Clinical encounter cards; a method of assessment of students based on the clinical teacher's direct observation of eight patient encounters, with comments written on a 4" X 6" score cards
DOPS	Directly Observation of Procedural Skills; a series of 15-25-minute, structured evaluation of students' procedural skills using a 9-point rating scale
Mini-CEX	Mini Clinical Evaluation Exercise, a series of 15-25-minute structured evaluation of students clinical competence using a 9-point rating scale, to assess medical interviewing skills, physical examination skills, humanistic qualities/professionalism, clinical judgment, counselling skills, organization/efficiency and overall clinical competence
MSF	Multisource Feedback or 360 degree evaluation; a way of measuring and recording essential attributes, namely professionalism, patient management, self-management, diligence, communication skill, and teamwork skills, of a student using a 9-point rating scale assessed by peers, co-health workers, patients, and self
OSCE	Objective Structured Clinical Examination; an organizational framework for evaluating students, consisting of various stations testing different aspects of clinical competence, including history taking, focused physical examination, technical skills, interpretative skills, and patient education
PBL	Problem-based learning; a small group learning method where students work in groups on a given a problem from which they will identify what they already know, what they need to know, and access new information to help them understand and solve the problem
SGD	Small group discussion

Instructional Designs

Section I: CORE PEDIATRIC MODULES

DATA GATHERING, RECORDING AND PRESENTATION

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Elicit an age-appropriate, organized, and complete history	Pediatric history: General data, Chief complaint, History of present illness, Review of systems, Maternal and birth history, Developmental history, Nutritional history, Immunization history, Family history and pedigree, Psychosocial history, Past medical history, Menstrual history, Environmental history, [For adolescents: HEADSSS (Home, Education, Activities, Drugs, Sexuality, Spirituality, Safety)]	Lecture-discussion Film showing Demonstration-return demonstration Actual and simulated patient Actual patient care	OSCE Written exam Oral exam Mini-CEX Blinded patient encounter
2. Perform an age-appropriate, thorough and proper physical examination	Physical examination (PE): Vital signs, Anthropometrics, Body mass index (BMI), WHO standardized charts for weight and length, Head, Eye, Ear, Nose and Throat (HEENT), Chest and lungs, Heart, Abdomen, Extremities, Genitourinary tract (GUT), Integument, Neurological examination, Tanner staging for adolescents Proper technique in the use of basic instruments – BP apparatus, otoscope, stethoscope, ophthalmoscope, weighing and height scale, tape measure for anthropometrics, thermometer	Lecture-discussion Film showing Demonstration-return demonstration Actual and simulated patient Actual patient care	OSCE Mini-CEX Blinded patient encounter
3. Construct a complete and organized written history and physical	Complete standardized data forms Written communication skills Motor and technical skills Integrity, honesty, professionalism,	Lecture-discussion Recording of documents	Written case history CbD *To include composition skills

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
examination.	confidentiality, neatness, systematic synthesis		
4. Effectively communicate with the family and patient during history taking and physical examination	Interview techniques Communication skills Interpersonal skills	Lecture Film showing Demonstration-return demonstration Actual and simulated patient Actual patient care	OSCE Mini-CEX CEC
5. Present complete and pertinent data clearly	Verbal communication skills Interpersonal skills Knowledge of pertinent data	Role modelling Demonstration-return demonstration Oral presentation Bedside teaching Case presentation	Case presentation Rating scale
6. Demonstrate the desired attitudes during history taking and physical examination.	Compassion, empathy, rapport, sensitivity, responsibility, professionalism, friendliness, respect for privacy, patience, gentleness, non-judgmental attitude	Role modelling Actual and simulated patient Actual patient care	MSF Patient feedback Attitude Rating Scale (Global Clinical Performance Ratings)

PEDIATRIC PROCEDURES

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Discuss the steps, indications, and contraindications of basic pediatric procedures	A. MUST KNOW PROCEDURES: 1. Essential Intrapartum and Newborn Care (EINC) 2. Complete blood count 3. NGT/OGT insertion 4. Suctioning 5. Gastric lavage 6. Collection of blood specimen 7. IV access (peripheral, intraosseous, umbilical) 8. Lumbar puncture 9. Injections (ID, SQ, IM) 10. Basic life support (ABCs, chest compression, endotracheal tube intubation) 11. Urine collection (bag collection, clean catch midstream collection, urethral catheterization) 12. Tourniquet Test B. Anatomy involved C. Indications and contraindications for each pediatric procedure D. Different steps involved in the performance of each pediatric procedure E. Complications/hazards associated with each procedure F. Post -procedural care	Lecture/handouts SGD	Written exam

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
2. Properly prepare oneself, patient and patient's parent/guardian for the procedure	Appropriate preparation for the procedure: 1. Explain the specific procedure to the parent/guardian/child 2. Obtain a signed informed consent 3. Prepare the child psychologically for the procedure 4. Materials /equipment necessary for the procedure 5. Medication for analgesia 6. Proper positioning and restraint for the specific procedure	Demonstration-return demonstration Video Simulation Preceptorials Bedside teaching	DOPS
3. Perform the essential pediatric procedures under direct supervision	Specific steps for each procedure Proper technique in performing procedures	Simulation Actual patient encounters	DOPS OSCE
4. Demonstrate the desired attitudes/values in the conduct of the procedure	Attitudes of non-maleficence, privacy, beneficence, confidentiality, respect, compassion and empathy Religious & cultural sensitivity		
5. Display the proper communication skills before, during and after the conduct of the procedure	Communication skills: Probing Reflective questioning Facilitating Summarizing		

GROWTH

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Define growth	Definition of growth	Lecture-discussion SGD	Written exam Oral exam SGD output
2. Recognize the importance and significance of growth	Organogenesis – resulting malformations / abnormalities Organ-specific growth patterns a. Lymphoid b. Neural c. Somatic d. Genital	Lecture Video presentation Small group discussion	Written exam Oral exam
3. Interpret growth measurements	Measurements of the following: a. Weight b. Length / height c. Head circumference d. Chest circumference e. Weight for length / height f. Mid-parental height Plotting of measurements and interpretation of significance over time	Lecture Demonstration Exercises/ drills Bedside teaching Patient encounters	OSCE Written exam Oral exam
4. Utilize other parameters and predictors of growth	Other parameters: a. Mid-arm circumference b. Skin fold thickness c. Body proportion i. US/LS ratio- for short stature ii. Waist/hip ratio- for obesity d. BMI e. Mid parental target height Interpretation of results	Lecture Demonstration-return demonstration Exercises / drills Interpretation Bedside teaching Patient encounters	Written exam Oral exam OSCE Return demonstration

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
5. Interpret changing values in measures of function of different organ systems	Procedure in obtaining the following: a. Blood pressure b. Cardiac rate c. Respiratory rate d. Dentition e. Growth rates f. Hematologic (CBC, platelet) g. Immunologic (IgG, A, M, D, E) h. Neurologic (CSF) Reference values for age and sex Computation of annualized growth velocity	Lecture SGD Drills / exercises on interpretation of values Demonstration and return demonstration Video	Written exam Oral exam OSCE

DEVELOPMENT

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Define development	A complex process of growing and acquiring skills occurring in an orderly, predictable pattern as a result of maturation and experience Reflects the increase in skill and complexity of function performed by an individual	Lecture Case discussion SGD	Written exam Oral exam OSCE
2. Recognize the importance and significance of development	Statistics on developmental disorders Gov't programs / budget supporting child development Laws supporting development a. ECCD- RA 8980 b. DOH AO 2010-0015= Adopting WHO growth charts c. RA 6972- Barangay Level total development and protection in children	Lecture	Written exam
3. Explain the principles that govern development	Basic principles: - Continuous process - Intimately related to the CNS - Follows a definite sequence but variable rate - Follows a cephalo-caudal pattern - Proceeds from gross undifferentiated skills to precise and refined individual responses	Lecture SGD	Written exam Oral exam
4. Identify the factors affecting development	Modifying factors: - Biological endowment - Environmental Influences a. Human relations b. Nutrition	Lecture Group research : presentation of accumulated scientific evidence Case discussions	Written exam Oral exam Graded presentation /report

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	c. Available learning experiences d. Socio-economic resources	SGD History writing/data collection	
5. Explain behavioral theories and models governing development	Behavioral Theories and Models: - Cognitive Theory (Piaget) - Psychosexual Theory (Freud) - Psychosocial Theory (Erickson) - Neurodevelopmental Theory (Gesell) - Moral Development (Kohlberg)	Lecture SGD	Written exam Oral exam
6. Enumerate periods of development *(Please see Module on Adolescent Growth and Development)*	Prenatal period: Ovular 0 – 14th day Embryo 14th day – end of 8th wk Fetal 9th wk – birth Postnatal period: Infancy Birth – 1 yrs Toddler 1 – 3 yrs Childhood Early 3 – 5 yrs Middle 6 – 8 yrs Late 9 – 10 yrs Adolescence Early 10 – 13 yrs Middle 14 – 16 yrs Late 17 – 19 yrs	Lecture Videos of childhood characteristics in the different stages	Written exam Oral exam
7. Describe the domains and milestones in the different age groups	Discuss the different domains and milestones: a. Motor (gross, fine) b. Language (receptive, expressive) c. Personal/social d. Cognitive According to age groups: a. Newborn	Lecture Video presentation of skills Actual patient demonstration/observation SGD Developmental history-taking	Written exam Oral exam OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	b. Infancy c. Toddler e. Pre-school f. School age	Drills / exercises on interpretation of milestones	
8. Differentiate methods of Developmental Surveillance	Differentiation between surveillance methods - Screening - Monitoring - Assessment Indications for recent and commonly-used tools for screening / monitoring development - PEDS - Denver II - Gesell Scales - Cattell – Clinical Linguistic and Auditory Milestones WHO Assessment CD	Lecture SGD Demonstration Video presentation Ward work	Written exam OSCE
9. Recognize the indicators of developmental delay	Limit ages Patterns of development - Normal - Dissociated - Deviant - Delayed	Lecture SGD Case studies	Written exam Graded case presentation
10. Discuss the more common developmental disorders *(See Module on Developmental and Behavioral Disorders)*	Discuss the following disorders according to hallmarks, prominent symptoms/signs, patterns of development A. Mental retardation (Down Syndrome) B. Cerebral palsy C. Autism D. AD/HD E. Hearing Impairment	Lecture Video presentation Case discussions/ presentations SGD	Written exam Oral exam Graded case presentation

ADOLESCENT GROWTH AND DEVELOPMENT

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Define "adolescence" and related terms	Definitions of "adolescent", " young people", "youth", "puberty" Stages of adolescence: early, middle and late	Lecture	Written exam
2. Describe the normal physical and pubertal changes	Male and female pubertal changes (sequence of events) - Difference between male and female physical growth - Normal variations of pubertal growth - Tanner staging Physical manifestations in different phases of puberty, indicating differences between girls and boys 1. **Early phase:** obvious breast budding and acceleration of growth (girls) versus imperceptible increase in testicular volume (boys). 2. **Middle phase:** menarche at a precise age (girls) versus mature spermatogenesis at a non-precise age and growth acceleration (boys). 3. **Late phase:** body fat increase and change in distribution (girls) versus voice deepening, facial hair and increased muscle mass (boys). Hormonal data of an adolescent	Interactive lecture with cases illustrating normal variations SGD Individual exercises Students decide if the following are within physiological limits : examples - A girl with pubic hair development began at 7.5 yrs - A girl with breast development started at 8.5 yrs - A girl with menarche at 9.5 yrs - A girl with primary amenorrhea at 15.5 yrs - A boy with prepubertal penis at 14 yrs	Written exam Group participation

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
3. Identify the factors that affect growth and development	Factors that affect growth and development • Genetics • Hormones • Environment • Nutrition • Illnesses	SGD with assigned cases (e.g. delayed, precocious puberty; short stature, overgrowth syndrome, malnutrition) Group report Plenary	Written exam Report Group participation
4. Identify the psychosocial changes in different phases: early, middle and late adolescence	Developmental goals of adolescence Cognitive, behavioral and social changes	Interactive lecture Exercises Cases	Written exam Report
5. Obtain relevant information on growth and development during history-taking	Interviewing skills (listening skills, observing for non-verbal cues etc) Components of an adolescent-friendly interview (privacy and confidentiality, attitudes) HEADSSS format (Home, Education, Activity, Drugs, Sexuality, Spirituality, Safety)	Lecture Demonstration Video Preceptorials Role playing Highlight do's and don'ts, points that can be improved Clinical rotation, bedside teaching, actual patient contact	OSCE Clinical histories Observation checklist Written exam
6. Perform a thorough physical examination	Weight, height, BMI, WHO Z-scores PE highlights: Tanner staging Scoliosis screening Breast examination Respect for privacy; recognition of need for chaperone	Lecture Demo/ video Plotting on WHO charts Clinic preceptorship Clinical rotation, bedside teaching, actual patient contact	OSCE Graded preceptorial Written exam

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
7. Interpret growth measurements in adolescence	WHO charts: height, weight, BMI Mid-parental height Tanner stage	Student activity Actually plotting with appropriate graphs	Written exam OSCE
8. Promote healthy development of the adolescent	Health maintenance and anticipatory guidelines Physical assessment, psychosocial assessment, laboratory, immunization, health guidance Adolescent interview – principles Confidentiality/privacy	Group work: create content of a program for health promotion Lecture Checklist for wellness Preceptorials Clinical rotation, bedside teaching	Group project
9. Identify what constitutes an adolescent- friendly clinic or visit	Adolescent-friendly clinic/visit	Use of metacards: Ask students to list as many characteristics they think an adolescent-friendly clinic health provider should have	Written exam Participation in group activity and discussion
10. Identify legal and ethical issues on adolescent health care	Laws governing confidentiality and consent Reporting of abuse	Case reporting Brainstorming Panel discussion, debate Plenary	Written exam Graded presentation
11. Discuss the principles and content of health promotion and maintenance for adolescents	PPS preventive health guidelines to address: - How often should an adolescent come for checkup? - What should a wellness check-up consist of? - What health messages should we impart during each clinic visit? - What immunizations should an adolescent be given? (Use PPS-PIDSP updated recommendations) - Catch-up immunizations	Advance organizer: PPS guidelines Lecture SGD: Give case scenario: Ask the students to make an ideal schedule of immunization update for an adolescent who comes for a wellness check-up	Written exam Group presentation

NUTRITION AND NUTRITIONAL DISORDERS

NUTRITION

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
A. Discuss nutrition and its role in the growth and development of infants and children			
1. Define nutrition and related terms	1. Definition of nutrition and other related terms 2. Energy requirement and expenditure and the factors that affect it	Lecture	Written exam
2. Discuss the digestion, absorption, transport, storage, functions and dietary sources of essential nutrients.	Digestion, absorption, transport and storage, function and dietary sources of: 1. Carbohydrates 2. Lipids 3. Proteins 4. Vitamins 5. Electrolytes: sodium, potassium, calcium, phosphorus, magnesium, chloride 6. Minerals: iron, copper, zinc, chromium, selenium, manganese, fluoride, iodine, molybdenum 7. Water	Lecture Game Video presentation Role playing of the process	Written exam Evaluation of the presentation using a rating scale
3. Discuss the function of nutrition in child growth and development	1. Body composition and growth 2. Effects of nutrition on growth and development 3. Relationship of nutrition, immunity and infection	Lecture SGD (tutorial or problem-based learning)	Written exam SGD outputs Participation in SGD rating scale

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
B. Discuss proper nutrition for various pediatric age groups			
1. Discuss the nutritional needs, guidelines and eating patterns at various pediatric age groups	1. Recommended Energy and Nutrient Intakes (2001) 2. Nutritional guidelines (AAP, FNRI) 3. Food Guide Pyramid (PSPGHAN) 4. Dietary Prescription (NCP) 5. Eating patterns at various age groups • Infancy (0 – 23 months) • Toddlers (2-3 years) • Preschool (4-5 years) • School age (6-10 years) • Adolescence (10 – 19 years)	Lecture Exercises, e.g., Board work (computations of calories needed as well as % of carbohydrate, protein and fat) Handouts (self-directed learning) Games	Written exam Seatwork
2. Discuss the art and science of introducing complementary foods	1. Definition and four features of complementary food 2. Epidemiology of complementary food introduction 3. Guiding principles in the introduction of complementary foods among breastfed and non-breastfed infants (WHO and PAHO) 4. Methods of introducing age- and developmentally-appropriate food	Lecture SGD (tutorial) Role playing Bedside teaching Actual patient contact Q&A games	Written exam SGD output OSCE
3. Discuss the importance of physical activity in achieving a state of well- being in children	Appropriate physical activity at various pediatric age groups	Lecture SGD (tutorial)	Written exam SGD output

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
C. Discuss breastfeeding in terms of benefits, techniques, problems, legal issues and contraindications			
1. Describe the anatomy of the female breast	1. External structure of the breast • Nipple • Areola • Montgomery's tubercle 2. Internal structures of the breast • Lactiferous ducts • Lactiferous sinuses • Milk ducts • Alveolus	Lecture Flipcharts with students reporting Video clip SGD (tutorial, PBL)	Written exam OSCE
2. Discuss the phases of lactation	1. Endocrine control of lactation through 3 phases • Mammogenesis or mammary growth • Lactogenesis or initiation of milk secretion • Lactogenesis or maintenance of milk production 2. Autocrine control of lactation – influence of local factors acting on the breast • Milk prolactin reflex – prolactin hormone 3. Hormones in charge of supporting continuous milk production	Lecture	Written exam

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	4. Variations of breast milk composition • Colostrum vs transitional vs mature breast milk • Term vs preterm breast milk • Foremilk vs hindmilk • Fresh vs stored vs pasteurized expressed breast milk 5. Biochemical composition of breast milk 6. Anti-infective properties of breast milk • Immunoglobulin (IgA, IgG, IgM) • Bifidus factor • Lactoferrin • Macrophages and other cellular components • B-12 binding protein • Antiviral factor		
3. Discuss the benefits of breast milk and breastfeeding	1. Benefits to infant: • Cognitive development • Anti-infective properties • Safety • Enhanced immune response to immunization • Other benefits to the preterm infant • Prevention of adult-onset diseases 2. Benefits to the mother • Prevention of obesity • Protection against cancers like ovarian and breast • Economical considerations • Psychological benefits	SGD (PBL) Role-playing	Written exam SGD output Rating scale

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	3. Benefits to the maternal-infant dyad • Skin-to-skin contact • Maternal infant bonding		
4. Discuss the harm of using artificial milk substitutes	1. Intrinsic contamination of powdered milk substitutes : bacillus cereus , *Enterobacter sakazakii* 2. Dangers of bottle feeding 3. Evidence for increased morbidity and mortality among formula-fed infants	Lecture SGD (tutorial or PBL) Role-playing	Written exam SGD output
5. Discuss breastfeeding initiation, techniques, problems and solutions to these problems	1. Initiation of breastfeeding • Importance of early initiation of breastfeeding • Proper attachment of infant to mother's breast • Monitoring of adequacy of intake • Different positions of breastfeeding ○ cradle hold ○ reverse cradle hold ○ clutch hold ○ side lying position 2. Common problems in breastfeeding • Breast engorgement • Sore nipples • Mastitis • Breast abscess • Inverted/flat areola	SGD (tutorial or PBL) Bedside teaching Actual patient contact Role-playing	Written exam SGD output Direct observation during clinical / community rotation

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
6. Explain the proper collection and storage of expressed breast milk	1. Different methods of breast milk collection • Manual expression • Mechanical expression • Electric pumps 2. Storage techniques of breast milk • Room temperature • Refrigerator • Freezer 3. Thawing of stored breast milk	Video presentation Demonstration – Return demonstration Case analysis of breast problems Bedside teaching Actual patient contact	Written exam Checklist Direct observation during clinical / community rotation
7. Identify the increased need for macro- and micronutrients of a lactating mother	Dietary prescription for lactating mothers	Lecture Exercises (make dietary prescription)	Written exam Seatwork
8. Recognize the need for active breastfeeding promotion in the community/public health administration	1. Mother-Baby Friendly Hospital Initiative 2. Maternal and Newborn, Child Health and Nutrition Policy of the DOH 3. Essential Intrapartum and Newborn Care 4. Breastfeeding and Rooming Act 5. EO 51 (Milk Code) 6. Ten Steps to Successful Breastfeeding Policy	SGD EINC video Preceptorials Bedside teaching Actual patient contact	Written exam Reporting Direct observation during clinical / community rotation
9. Discuss the contraindications to breastfeeding and breast milk	Contraindications to breastfeeding / breast milk 1. Maternal contraindications • Drug intake • Medical conditions 2. Neonatal contraindication a) Galactosemia	SGD Lecture Role-playing	Written exam SGD output Checklist

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
10. Discuss the acceptable medical indications for the use of breast milk substitutes for infants.	1. Acceptable medical indications for breast milk supplementation and substitution (PPS Standards of Newborn Care, 3rd ed. pp. 62-63) 2. Breast milk substitutes a) Standard infant formulas b) Follow-on formulas c) Whole cow's milk formulas d) Special formulas • Soy-based formulas • Protein hydrolysates • Partially hydrolysed • Extensively hydrolysed	Advance organizers (handouts) Lecture Brainstorming	Written exam

NUTRITIONAL DISORDERS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
A. Discuss the nutritional disorders of infants and children			
1. Identify the common nutrition problems in the Philippines	1. Undernutrition: protein-energy malnutrition(Marasmus / Kwashiorkor) 2. Overnutrition : Obesity 3. Other nutritional problems: e) Oral health problems f) Problems with vegetarian diet and unusual diets g) Feeding disorders: anorexia nervosa and bulimia	Lecture discussion with video presentation SGD (tutorial or PBL) Bedside teaching Actual patient contact	Written exam SGD output Direct observation during the clinical rotation
2. Describe the epidemiology of malnutrition in the Philippines	Local epidemiology and magnitude of the problem	Lecture	Written exam
3. Discuss the pathophysiology of malnutrition	Pathophysiology of malnutrition	Lecture SGD (tutorial or PBL)	Written exam SGD output
4. Describe the usual clinical manifestations of malnutrition	Clinical manifestation of the following: 1. Marasmus 2. Kwashiorkor 3. Obesity 4. Vitamin deficiencies/ excesses 5. Mineral deficiencies	Lecture Audiovisual presentation SGD (tutorial or PBL) Actual patient contact	Written exam SGD output Direct observation during the clinical rotation

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
B. Competently assess the nutritional status of given patients			
1. Given patients, obtain a complete medical history with emphasis on comprehensive nutritional history	1. Parts of a comprehensive nutritional history 2. Rapport with patient and parents 3. Factors in the history predisposing and contributing to present condition 4. Prognosis of patient	Lecture Video presentation Demonstration- return demonstration Role playing with video Preceptorials Bedside teaching Actual patient contact	Written exam Direct observation during clinical / community rotation OSCE or practical exam
2. Perform a complete physical examination to include: a. Anthropometric measurements b. Recognition of signs of malnutrition referable to macro- and micronutrient deficiency or excess	1. Anthropometric measurements: weight, height, head circumference, mid- upper arm circumference (MUAC), mid-arm muscle circumference (MAMC), skinfolds 2. Skin: dermatoses 3. Head: hair distribution 4. Eye: xerophthalmia, conjunctival pallor 5. Mouth: cheilosis, angular stomatitis, dental caries 6. Abdomen: hepatomegaly, ascites 7. Extremities: edema	Lecture Video presentation Demonstration-return demonstration Preceptorials Bedside teaching Actual patient contact	Written exam Direct observation during clinical / community rotation OSCE or practical exam
3. Discuss appropriate laboratory work-ups for specific disorders	1. Diagnostic work ups for specific disorders 2. Interpretation of results	Lecture discussion SGD (tutorial or PBL) Bedside teaching Direct patient contact Exercises	Written exam SGD output Direct observation during clinical rotation OSCE or practical exam

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
C. Discuss the appropriate plan of management of patients with nutritional disorders as well as the nutritional management of patients with other diseases			
1. Outline the plan of treatment of common nutritional disorders that include: a. Comprehensive nutritional assessment to guide treatment b. Dietary prescription as required by the condition c. Recommendation for regular monitoring of patients d. Specific treatment	1. Treatment of the following nutritional disorders: • Marasmus • Kwashiorkor • Obesity • Vitamin A Deficiency- dose, route of administration • Iron Deficiency Anemia: dose, route of administration • Iodine deficiency 2. Need for antimicrobials 3. Micronutrient supplementation for severe protein-calorie malnutrition 4. Fluid management of severely dehydrated malnourished children 5. Role of diet, exercise, and drugs in the management of obesity	SGD (PBL) Preceptorials Bedside teaching Actual patient contact Lecture	Written exam SGD output Direct observation during clinical rotation

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
2. Discuss nutritional management in children with specific diseases	Nutritional management of children with: 1. Renal disease • Hypertension • Nephrotic syndrome • Glomerulonephritis • Acute/chronic renal failure • Children on dialysis 2. Hyperlipidemia and obesity 3. Cardiac diseases: CHF 4. Diabetes mellitus 5. Allergic disorders 6. Post-operative states 7. Burns 8. Other conditions	Lecture discussion SGD (tutorial or PBL) Preceptorials Bedside teaching Direct patient contact	Written exam SGD output Direct observation during clinical rotation OSCE
3. Provide health education and proper disease concept to patients and families	1. Maintenance of nutritional status after nutritional rehabilitation 2. Role of the family & community in the maintenance of nutritional status 3. Proper nutrition starting in infancy 4. Integration with other health programs 5. Immunization, breastfeeding, control of communicable diseases	SGD Role-playing Preceptorials Bedside teaching Direct patient contact Community rotation	SGD output Participation in role play Direct observation during clinical rotation OSCE or practical exam Research proposal output

Section II: ORGAN SYSTEM DISORDERS

ALLERGY

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Discuss the principles of allergic disorders	Immune dysregulation (TH1, TH2, TH3 cells) Concept of allergen sensitization Types of hypersensitivity states (Gell & Coombs Classification) Type I (IgE-mediated reaction) Type II (Antibody-dependent cell cytotoxicity) Type III (Complement-mediated) Type IV (Delayed)	Lecture-discussion SGD PBL	Written exam SGD or PBL output
2. Discuss the common allergic triggers	Common allergic triggers: Housedust mites Pollens Moulds Food Animal dander	Lecture-discussion SGD PBL	Written exam SGD or PBL output
3. Discuss the allergic march and the co-morbid allergic disorders	Mechanisms of the allergic march Co-morbid conditions: Bronchial asthma Otitis media Sinusitis	Lecture-discussion SGD PBL	Written exam SGD or PBL output
4. Recognize allergic disorders or adverse drug/food reactions based on clinical presentation	Clinical presentation of allergic disorders: a. Pruritus b. Skin rashes/eruptions c. Sneezing &/or runny nose d. Wheeze e. Recurrent/chronic cough f. Persistent/recurrent diarrhea/vomiting g. Hematochezia	Lecture-discussion SGD PBL Bedside teaching	Written exam OSCE Direct observation

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Adverse drug reaction Adverse food reaction Allergic rhinitis/sinusitis Atopic dermatitis Bronchial asthma Urticaria		
5. Determine probable cause through appropriate diagnostic work-up	Role of history and physical examination Principle, rationale, and indications of each ancillary test CBC Chest x-ray PA and lateral views Smear for eosinophilia in the nasal, bronchial and gastrointestinal secretions Peak expiratory flow rate Blood gas analysis Total serum IgE In-vitro specific IgE test Goldman's criteria for the diagnosis of food allergy (eg double-blind placebo-controlled food challenge test (DBPCFC) Paranasal sinus Xray and/or CT scan Indications and principles of allergy skin test	Lecture PBL Discussion Independent study Case discussion Bedside discussion	Written exam OSCE Direct observation
6. Outline the plan of treatment for the common allergic disorders	Treatment for: a. Allergic contact dermatitis b. Allergic rhinitis c. Anaphylaxis d. Atopic dermatitis e. Bronchial asthma including cough	Lecture PBL Discussion Independent study Case discussion Bedside discussion	Written exam OSCE Direct observation

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	variant asthma f. Drug allergy g. Food allergy including cow's milk allergy h. Urticaria		
7. Explain the role of prevention in allergic diseases	Epigenetics of allergic diseases (gene-environment interaction) Risk factors for allergic diseases Identifying high risk atopic individuals Principles of allergy prevention (primary, secondary and tertiary prevention)	Lecture PBL Discussion Independent study Case discussion Bedside discussion	Written exam OSCE Direct observation
8. Explain the basic principle of treatment : a. Avoidance b. Pharmacologic therapy c. Aeroallergen immunotherapy	Risk factors and triggers Role of environment in disease exacerbation How to avoid triggers through specific and non-specific measures Principle and rationale of the different therapeutic modalities Pharmacodynamics and pharmacokinetics of the different first line pharmacologic agent Pharmacotherapeutics (method of administration of these pharmacologic agents Adverse effects of the different pharmacologic agents Mechanism of immunotherapy Indications for immunotherapy Manner of administration, onset of action, duration of treatment Possible adverse effects, prevention/treatment of complications	Lecture PBL Discussion Independent study Case discussion Bedside discussion	Written exam OSCE Direct observation

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
9. Identify the onset or presence of complications, their treatment, prevention and need for further treatment and referral	Secondary infections: viral, bacterial, fungal Pneumothorax Cardiorespiratory failure Anatomic, physiologic and pathophysiologic basis of the above complications	Lecture PBL Discussion Independent study Case discussion Bedside discussion	Written exam OSCE Direct observation
10. Clinically diagnose common allergic emergencies a. Anaphylaxis b. Bronchial asthma in severe exacerbation	Anaphylaxis Bronchial Asthma in severe exacerbation Causes, pathophysiology, clinical presentation, management, indications for admission and referral	Lecture PBL Discussion Independent study Case discussion Bedside discussion	Written exam OSCE Direct observation
11. Provide proper health education a. Pathophysiology b. Treatment modalities (include compliance to treatment) c. Prevention (primary, secondary, tertiary prevention) d. Control measures e. Role of immunotherapy	Basic concept in the development of allergic disease including role of genetics and environment Role of clinical/immunologic methods in detecting sensitization Early warning signs to prevent allergic diathesis and how to prevent progression and complications Control measures to attain a Normal life	Lecture PBL Discussion Independent study Case discussion Bedside discussion	Written exam OSCE Direct observation

BONES AND JOINTS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Identify the role and general scope of practice of rheumatology	Recognize situations where children benefit from skills of specialists trained in caring for the pediatric age group	SGD PBL Bedside teaching	Written exam
2. Distinguish normal or transient disorders from pathological rheumatologic conditions	Benign (growing pains) vs. pathologic limb pain Mechanical vs. inflammatory joint pain Typical presentation of HSP, Kawasaki disease, post-infectious arthritis, chronic rheumatologic condition Signs and symptoms suggestive of rheumatologic diseases: • Arthralgia vs arthritis • Common pediatric skin rashes vs. suspicious inflammatory rashes (vasculitis, malar rash, heliotrope rash) • Fever patterns suggestive of JIA, rheumatic fever, other systemic inflammatory processes • Fatigue, tender points vs. chronic painful, inflammatory condition • Weight loss • Back pain	Lecture-discussion SGD PBL Preceptorials	Written exam SGD output CEC
3. Elicit a thorough history including red flags requiring further work up	History taking Red flags in general pediatrics requiring further work up Interviewing skill	SGD PBL Demonstration-return demonstration Preceptorials	Mini-CEX Practical exam OSCE Clinical performance rating

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
		Bedside teaching	
4. Competently perform a musculoskeletal exam on patients seen in rheumatology clinic or in inpatient consultation	Technique of PE and musculoskeletal examination (pediatric gait, arms, legs, spine or pGALS) Respect for patient safety, comfort and privacy	Instructional video Demonstration-return demonstration Preceptorials Bedside teaching	Mini-CEX Practical exam OSCE Clinical performance rating
5. Interpret the following tests commonly employed in rheumatologic disease	Indications, limitations and interpretations of appropriate diagnostic examinations: Blood examinations: • CBC • ESR • Complement • Urinalysis • Rheumatoid factor • ANA • Anti-DNA Synovial fluid analysis Imaging studies • Joint x-ray • Joint MRI • CT scan • Ultrasound • Bone scan (nuclear medicine study)	Lecture-discussion SGD PBL Bedside teaching: Review of laboratory findings in consult patients Actual patient encounter with laboratory interpretation of examination results Self-directed learning	Written exam CbD CEC OSCE
6. Provide prevention counseling to parents and patients with rheumatologic conditions	The role of physical therapy, occupational therapy, and routine eye exams in various types of juvenile arthritis Use of antibiotic prophylaxis in lupus patients undergoing dental cleaning or other invasive procedures The role of healthy eating behaviors, diet,	Role play Preceptorials Bedside teaching Actual patient encounter	MSF Clinical performance rating

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	and calcium/vitamin D supplementation in children on chronic glucocorticosteroid treatment The role of sun protection in children with autoimmune diseases The importance of monitoring growth parameters in children with chronic rheumatic diseases The importance of anticipatory guidance regarding risky behaviors and medical noncompliance in adolescents with chronic rheumatic diseases Use of proper sports safety equipment to prevent bone and joint injuries that may lead to future disability Use of antibiotics in streptococcal diseases or with prior rheumatic fever to reduce the risk of new or recurrent rheumatic fever		
7. Outline the appropriate management of patients with rheumatologic disease			
a. Discuss the appropriate treatment for given patients	Principles of treatment Drugs used for patients	Lecture-discussion SGD PBL Bedside teaching	Written exam SGD output CbD CEC Clinical performance rating

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
b. Discuss the considerations involved in administering various vaccinations	Determine safety of live virus vaccination in a given patient Determine need for influenza vaccination	SGD PBL Bedside teaching	Written exam SGD output CbD CEC Clinical performance rating
c. Discuss special considerations in immunosuppressed patients	Fever/ infectious disease management Routine monitoring of PPD status Post-exposure prophylaxis	SGD PBL Bedside teaching Actual patient encounter	Written exam SGD output CbD CEC Clinical performance rating
d. Identify problems at school for which patients with chronic disease are at higher risk and well as ways to modify the risk	Screen for depression, anxiety or adjustment disorders Disrupted school attendance and performance Encourage physical education class and sports participation	SGD PBL Actual patient counter	Written exam SGD output MSF

BURNS AND INJURIES

BURNS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Explain the epidemiology of burn injuries	Epidemiology of burn injuries	Self-instructional materials, manuals and handouts Lecture-discussion SGD PBL	Written exam SGD output
2. Describe types of burn injuries	Types of burn injuries: • Scald • Flame • Chemical • Electrical • Radiation	Self-instructional materials, manuals and handouts Lecture-discussion SGD PBL	Written exam SGD output
3. Assess the depth of the burn injury	Depth of burn injuries: Partial thickness— first degree second degree Full thickness or third degree	Self-instructional materials, manuals and handouts Lecture-discussion SGD PBL Actual patient encounter Bedside teaching	Written exam SGD output Clinical performance
4. Estimate the extent of the patient s burn injury as percentage of total body surface area using body surface charts	Extent of burn injury: Lund and Browder chart and other body surface charts	Self-instructional materials, manuals and handouts Lecture-discussion Audiovisual presentations SGD PBL Actual patient encounter Bedside teaching	Written exam SGD output Clinical performance

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
5. Describe the pathophysiologic changes due to burn injuries	Pathophysiology of burn injuries: Hemodynamic Autonomic Cardiopulmonary Renal and metabolic disturbances	Self-instructional materials, manuals and handouts Lecture-discussion SGD PBL Actual patient encounter Bedside teaching	Written exam SGD output
6. Formulate preventive strategies against burn injuries using various preventive models	Models of preventive strategies: Injury matrix Haddon s 10 generic strategies Agent-host-environment interactive model The "safety equation" Model of risk factors and consequences The 4 E's: Education Enforcement Engineering Environment	Self-instructional materials, manuals and handouts Lecture-discussion SGD PBL Actual patient encounter Bedside teaching	Written exam SGD output Clinical performance OSCE CEC CbD
7. Institute appropriate medical procedures in the emergency phase of burn injuries	Emergency procedures in the management of burn injuries Fluid, electrolyte and colloid therapy	Self-instructional materials, manuals and handouts Lecture-discussion SGD PBL Actual patient encounter Bedside teaching	Written exam SGD output OSCE
8. Recognize patients that should be referred to a Burn Center	American Burn Association criteria for referral to a burn center	Self-instructional materials, manuals and handouts Actual patient encounter Bedside teaching	Written exam SGD output Clinical performance

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
9. Discuss treatment of complications	Complications following burn injuries: Cardiac dysfunction Respiratory problems Severe oliguria Renal failure Endotoxemia Nutritional problems	Self-instructional materials, manuals and handouts SGD PBL Actual patient encounter Bedside teaching	Written exam SGD output Clinical performance CEC CbD
10. Discuss the appropriate rehabilitation program of patients	Rehabilitation measures for burn patients	Self-instructional materials, manuals and handouts SGD PBL Actual patient encounter Bedside teaching	Written exam
11. Express sympathy to parents of children with burn injuries	Showing sympathy to children with burn injuries	Actual patient encounter Bedside teaching	Clinical performance MSF
12. Assist parents and family members in coping with the patient s situation	Showing concern and sensitivity to parents and family members	SGD PBL Actual patient encounter Bedside teaching	Written exam

INJURIES

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Interpret the epidemiologic features of common childhood injuries *(Please see Module on Emergency Pediatrics)*	Epidemiologic features of common injuries on the road, school and home: Traffic injuries Submersion injuries Falls Burns Poisoning	Self-instructional materials, manuals and handouts Lecture-discussion SGD PBL	Written exam SGD output
2. Explain the relationship among the agent of injury, the host or injured child and the environment	Epidemiologic framework: The agent-host-environment model Child development and injuries	Self-instructional materials, manuals and handouts Lecture-discussion SGD PBL	Written exam SGD output
3. Formulate preventive strategies against common injuries using various preventive models or approaches	Models of preventive strategies: Injury Matrix Haddon's 10 generic strategies Agent-host-environment interactive model The "safety equation" Model of risk factors and consequences The "4E's":Education Enforcement (of the law and regulations) Engineering Environment	Self-instructional materials, manuals and handouts Lecture-discussion SGD PBL Actual patient encounter Bedside teaching	Clinical performance OSCE CEC CbD
4. Teach first aid and other preventive measure to parents and other members of the family and the community	Management of the injured child: First aid Primary care Secondary Tertiary care	Self-instructional materials, manuals and handouts Actual patient encounter Bedside teaching	Clinical performance OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
5. Assess the injured child using the Pediatric Trauma Score and other scoring systems and know when to refer to a Trauma Center	Pediatric Trauma Score Glasgow Coma Score	Actual patient encounter Bedside teaching	Written exam SGD output Clinical performance OSCE CEC CbD
6. Apply first aid and other appropriate primary care measures to	Airway Breathing Circulation Disability Exposure Principles of application of first aid	Demonstration-return demonstration Actual patient encounter Bedside teaching	Clinical performance OSCE CEC CbD
7. Record accurate and complete information surrounding the particular injury	Proper documentation Thoroughness Accuracy	Self-instructional materials, manuals and handouts SGD PBL Actual patient encounter Bedside teaching	Written exam SGD output Clinical performance OSCE CEC CbD
8. Discuss with the parents/caregiver the status of the injured child	Concern, empathy and sensitivity to the parents and families of the injured child	Actual patient encounter Bedside teaching	Clinical performance OSCE CEC CbD
9. Report the injury incident to the proper medico-legal authorities	injury surveillance Proper reporting Concern for the welfare of the patient	Actual patient encounter Bedside teaching	Written exam CbC CEC

CARDIOVASCULAR DISORDERS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Explain the anatomic, physiologic and pathophysiologic basis of the presenting problem/complaint.	Anatomy and physiology of the cardiovascular system: fetal and postnatal Pathophysiology of Complaint/Problem	Lecture-discussion SGD PBL	Written exam Graded oral recitation Written report Practical exam Clinical performance rating Oral exam OSCE CEC Mini-CEX
2. Identify clinical presentation of cardiovascular diseases	Murmur: physiologic and pathologic Cyanosis: central and peripheral Difficulty of breathing Edema Hypoxic spell Irregular rhythm Chest pain Systemic hypertension Cardiomegaly Syncope Dysmorphic features	Lecture-discussion SGD PBL Bedside teaching	Written exam Graded oral recitation Written report Practical exam Clinical performance rating Oral exam OSCE CEC Mini-CEX
3. Elicit a complete history which focuses on the character and circumstances surrounding the complaint.	Complete history of the patient, focus on the C-V complaint/problem Include prenatal history and family history Communication skills Interpersonal skills Respect for patient's privacy confidentiality Thoroughness	Demonstration-return demonstration Preceptorials Bedside teaching	Written exam Written report Practical exam Clinical performance rating Oral exam OSCE CEC Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
4. Perform a complete PE including a systematic cardiac examination using inspection, palpation, and auscultation	Complete PE and cardiac evaluation including BP in all extremities, body weight and height (length), cyanosis +/- clubbing of nailbeds, edema, pulses upper and lower extremities, dysmorphic features Cardiac examination: chest symmetry, point of maximal impulse and location, heave, thrill, heart sounds and murmur, rhythm and rate Communication skills Consideration for the patient's safety, comfort and privacy	Instructional video Demonstration-return demonstration Preceptorials Bedside teaching Actual patient encounters	Written exam Graded oral recitation Written report Practical exam Clinical performance rating Oral exam OSCE CEC Mini-CEX
5. Determine the most likely abnormality and severity based on information gathered	Correlation and findings on PE with knowledge of the anatomy and physiology of the cardiovascular system Signs and symptoms presented and their severity	Lecture-discussion SGD PBL Preceptorials Bedside teaching Actual patient encounters	Written exam Graded oral recitation Written report Clinical performance rating Oral exam OSCE CEC Mini-CEX
6. List the logical differential diagnoses based on gathered data	Differential diagnosis: A. Congenital heart disease 1. Acyanotic: volume overloading lesions or pressure overloading lesions. 2. Cyanotic: Increased pulmonary blood flow, decreased pulmonary blood flow B. Acquired heart disease 1. Rheumatic fever Rheumatic heart disease	Lecture-discussion PBL SGD Bedside teaching	Written exam Graded oral recitation Written report Practical exam Clinical performance rating Oral exam OSCE CEC Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	2. Infective endocarditis 3. Myocardial disease 4. Pericardial disease 5. Kawasaki disease C. Arrhythmias D. Heart failure E. Metabolic syndrome Approach to differential diagnoses Primary diagnosis and bases Functional classification of the disease		
7. Choose the appropriate diagnostic examinations to establish the diagnosis	Indications, availability, reliability of diagnostic examinations Blood examinations: Complete blood count Arterial/venous blood gas Serum electrolytes (Na, K, Ca, Mg) Acute phase reactants: ESR, CRP ASO titer, Anti DNAseB test Blood culture (2x) Cardiac enzymes Imaging studies Chest radiograph (PA and L views) Magnetic resonance imaging/ Angiography Cardiac catheterization/ Angiocardiography Echocardiography: 2-D echo, color Doppler studies, TEE Electrocardiogram 15 leads, rhythm strip, holter (ambulatory) , monitoring (24-hour), treadmill	Lecture-discussion PBL SGD Bedside teaching	Written exam Graded oral recitation Written report Clinical performance rating Oral exam OSCE CEC Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Exercise Test Pericardiocentesis Written informed consent containing: a. Role in the diagnosis and treatment b. Necessity of the procedures c. Cost–risk-benefit evaluation Psychological support to the patient and family Importance and principles of asepsis in the collection of biological specimen Interpretation of the results of laboratory tests done Correlation of laboratory test results with the clinical data, differential diagnosis and natural course of the illness Adverse clinical outcome of diagnostic tests		
8. Establish the diagnosis using evidence	Diagnostic criteria for common cardiovascular diseases	Lecture-discussion PBL SGD Bedside teaching	Written exam Graded oral recitation Written report Practical exam Clinical performance rating Oral exam OSCE CEC Mini-CEX
9. Outline a plan of treatment for emergency care, definitive care, and long-	Relevance, availability, socio-economic factors, rehabilitative care and schedule of follow-up in the common cardiovascular disease Indications for hospitalization and	Lecture-discussion PBL SGD Bedside teaching	Written exam Graded oral recitation Written report Practical exam Clinical performance rating

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
term/rehabilitative care for various cardiovascular diseases	emergency care of patients with cardiovascular problem(s): • Heart failure • Arrhythmia • Hypercyanotic attacks • Sudden death Equipment, materials and medications for resuscitation Steps in emergency care Basic Life Support (BLS) Pediatric Advanced Life Support (PALS) Cardiovascular resuscitation techniques and stabilization measures including cardioversion Appropriate fluid management Palliative procedures Surgical procedures Catheter device procedures Therapeutic agents for symptomatic relief of CHF, RF, RHD, pulmonary hypertension Indications for limitation in physical activities, sports and employment List of C-V diseases with tendency to chronicity and requiring long-term follow-up: Grown–ups with CHD (operated and unoperated),RHD, pulmonary hypertension Specific therapeutic agents for long-term care of patients with C-V diseases Specific definitive care of patients with C-V diseases		Oral exam OSCE CEC Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Correct (appropriate) diet for the C-V disease; appropriate physical activity/ sports for the C-V disease Correct pharmacological agents for long-term care Antimicrobial prophylaxis against bacterial endocarditis Rehabilitative care for chronic C-V disease Recognition of complications and need for referral: Pulmonary artery hypertension Heart failure Infective endocarditis CNS: Complications: brain abscess, brain embolism, infarct Arrhythmias Hypoxic spells Cardiac tamponade		
10. Perform proper diagnostic procedure (EKG, 2D echo in hospitalized patients)	Steps in performing ECG	Demonstration-return demonstration Bedside teaching Actual patient encounters	Clinical performance rating Practical exam OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
11. Provide health education to families to prevent occurrence of acquired heart disease and its complications	Effects of heart disease to patient, family, and its implication to the community and national health Epidemiologic facts affecting the occurrence, spread and chronicity of C-V disease Ten leading causes of morbidity (DOH) Ten leading causes of death (1-5years old) (5-10,10-15 years old) Institutional studies Institutional data Registry of diseases Role of medical, paramedical and traditional health providers in the management and control of acquired C-V disease Interaction and dynamics between the family and C-V disease Preventive measure including physical activity and sports	SGD Role play Bedside teaching Actual patient encounters	Clinical performance rating OSCE Mini-CEX

CRITICAL CARE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Clinically diagnose common emergency problems	Clinical presentation of common emergency problems: A. Shock B. Respiratory failure C. Foreign body aspiration D. Multiple organ failure	Modules/slide presentation PALS interviews Independent patient contact Bedside tutorial SGD Lecture Module simulation	Written exam Clinical performance rating
2. Determine the probable cause through appropriate work-ups	A. Shock 1. Hypovolemic shock 2. Septic shock 3. Distributive shock 4. Cardiogenic shock B. Respiratory failure C. Systemic Inflammatory Response Syndrome (SIRS)	Lecture SGD PBL Ward rounds Tape/slide program on problem-oriented record-keeping Preceptorials	Written/oral exam Case presentation
3. Outline plan of treatment for common disorders	Drugs, IVF support, airway support A. Shock 1. Hypovolemic shock 2. Septic shock 3. Distributive shock 4. Cardiogenic shock 5. Multiple organ failure	Lecture SGD Patient management problem Preceptorials	Checklist Simulation assessment of video recordings

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
4. Institute treatment for the most common emergency conditions	ABC's of resuscitation: Airway Breathing circulation Drugs/fluids gauging Human mentation Intensive care Treatment for the following conditions: A. Pneumothorax B. Barotraumas/volutrauma C. Disseminated intravascular coagulation (DIC) D. Acute respiratory distress syndrome(ARDS) E. Apnea F. Asystole G. SIRS/Multiple organ dysfunction syndrome (MODS) H. Transport - emergency medical system (EMS) Transport by EMS	Ward team participation Models of procedures Demonstration- return demonstration Patient management problem Independent patient contact SGD	Models, knowledge and rapport Simulation test Video-audiotape assessment
5. Identify the onset and presence of complications, need for further treatment and referral (over-treatment vs. undertreatment)	Clinical presentation and treatment of the following complications: A. DIC B. ARDS C. SIRS D. MODS E. Apnea	Case presentation Lecture Algorithms Bedside teaching Ward rounds SGD Model simulation	OSCE Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	F. Asystole		
6. Provide health education and proper disease concepts	Control of disease Counseling Good intrapartal management Immediate neonatal care Diagnosis and treatment of life-threatening but reversible conditions Timely referral Teaching and counseling regarding basic and advance life support to caregivers	Independent patient Contact SGD Model simulation Patient management problem Ward rounds and team participation Preceptor sessions with video recordings of patient interviews Parent educating classes Home hospital visits	MSF Simulation

DERMATOLOGY

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Discuss common dermatological problems seen in the pediatric age group 2. Construct a complete history with emphasis on describing the initial dermatological complaint, and the development & progression of the cutaneous problem 3. Perform a complete PE with emphasis on dermatological examination	Descriptive terminology for skin lesions 1. Primary lesions: macules, papules, patch, plaque, vesicles, bulla, pustule, nodule, tumor, wheal 2. Secondary lesions: crust, scales, lichenification, erosion, ulcer, fissure, excoriation, atrophy, scar, hyper- or hypopigmentation, ulcer 3. Other conditions: atrophy, burrow, comedone, erythema, petechia, poikiloderma, purpura, sclerosis, exanthem, enanthem Transient skin lesions in the newborn: Cutaneous defects Vascular disorders Hyperpigmentation Hypopigmentation Eczematous disorders Papulosquamous disorders Vesicobullous disease Xerosis Cutaneous bacterial infections Cutaneous viral infections	Lecture SGD PBL	Written exam Graded SGD & preceptorials using evaluation forms OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Cutaneous fungal infections Cutaneous infestations Acne Hair disorders Dermatological emergencies: Steven Johnson Syndrome - toxic epidermal necrolysis and necrotizing fasciitis Physical and environmental hazards		
4. Select the appropriate diagnostic examinations for cutaneous problems 5. Interpret accurately the results of the tests & procedures	Diagnostics for: 1. Bacterial infections: gram stain & culture 2. Viral diseases: light microscopy (Tzanck smear), PCR, ELISA, viral cultures 3. Mycotic diseases: light microscopy (KOH smear), wood's light exam, fungal culture 4. Immune mediated skin diseases: direct & indirect immunoflourescence microscopy 5. Other common cutaneous problems: skin biopsy, skin scrap pings for scabies, light microscopy exam for hair shaft abnormalities	Lecture Case-based SGD Demonstration Bedside/out-patient clinic teaching Reading assignment with follow up discussions	Written exam Evaluation forms for group discussions OSCE
6. Propose a logical diagnosis and differential diagnoses based on data gathered			

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
7. Discuss the principles & rationale of management of common pediatric dermatological problems 8. Discuss the indications, appropriate dose, duration of use, adverse, & side effects of therapeutic agents/modalities 9. Recognize dermatological emergencies	A. Skin care & therapy- general principles: bathing, skin cleansers, creams, ointments, shampoos B. Xerosis: emollients, moisturizers, humectants C. Pruritus and inflammation: emollients, topical steroids, topical calcineurin inhibitors, antihistamine, menthol, phenol, topical doxepin, immunosuppressive agents, TNF inhibitors D. Physical & environmental hazards: sunscreens, barrier creams & ointments, insect repellents, clothing E. Skin infections: topical and systemic antibiotics, topical and systemic antifungal agents, antiviral agents, cantharadin, topical salicylic acid, pediculocides & scabicides, electro-cautery, cryotherapy F. Acne: cleansers, topical retinoic acid, topical & systemic antimicrobials,	Lecture Case-based SGD Bedside/out-patient clinic teaching Reading assignment with follow up discussion	Written exam Evaluation forms for group Discussions OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
10. Determine the indications for hospitalization, surgical intervention, & referral to specialists	isotretinoin, G. Dermatologic emergencies: wound care, proper use of antimicrobials, fluid management		
11. Develop an appropriate plan for preventive care, patient follow-up			

DEVELOPMENTAL AND BEHAVIORAL DISORDERS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Discuss the classification and prevalence of various developmental disabilities and behavioral disorders	Definition DSM 5 criteria for diagnosis of • Intellectual disability/ Global developmental delay • Cerebral palsy • Autism • Attention Deficit Hyperactivity Disorder (ADHD) Hearing/ vision impairment Risk factors/ protective factors Co-morbidities	Lecture-discussion Instructional video PBL SGD Preceptorials	Written exam SGD output
2. Recognize presenting signs and symptoms of common developmental and behavioral disorders	Clinical presentation of common developmental and behavioral disorders	Lecture-discussion Instructional video PBL SGD Preceptorials	Written exam SGD output
3. Elicit a complete and accurate history including developmental milestones and red flag signs for each condition	History-taking technique Developmental milestones Red flags: • Speech delay • Difficult behavior • Aggressive behavior • Excessive tantrums Communication skill Interpersonal skill Confidentiality	Lecture-discussion Instructional video Demonstration-return demonstration PBL SGD Preceptorials	Written exam SGD output CbD Mini-CEX Practical exam OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
4. Perform a systematic and thorough physical examination	PE technique Respect for patient's safety, comfort and privacy Thoroughness	Lecture-discussion Instructional video Demonstration-return demonstration PBL SGD Preceptorials Bedside teaching	Written exam SGD output CbD Mini-CEX Practical exam OSCE
5. List logical diagnosis and differential diagnoses	Clinical presentation of developmental disabilities and behavioral disorders	Lecture-discussion PBL SGD Preceptorials Bedside teaching	Written exam SGD output CbD Mini-CEX OSCE
6. Select appropriate diagnostic examinations for the common developmental and behavioral disorders depending on presenting manifestation	Principles, rationale and proper interpretation of tests and procedures in the diagnosis of developmental and behavioral disorders and comorbid conditions	Lecture-discussion SGD PBL Preceptorials Bedside teaching	Written exam SGD output CbD Mini-CEX OSCE
7. Establish the diagnosis based on supporting evidence	Criteria for diagnosis of developmental and behavioral disorders	Lecture-discussion SGD PBL Preceptorials Bedside teaching	Written exam SGD output CbD Mini-CEX OSCE
8. Discuss the principles of management of	Drug treatment Physical therapy Occupational therapy	Lecture-discussion SGD PBL	Written exam SGD output CbD

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
common developmental and behavioral disorders	Speech therapy Behavioral therapy Referral to specialists	Preceptorials	

ENDOCRINOLOGY AND METABOLISM

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Recognize presenting signs and symptoms of common endocrinopathies in the pediatric age group 2. Elicit a complete history including red flag signs for endocrinopathies 3. Perform a complete physical examination	Clinical presentation of the following endocrinopathies: A. Abnormal stature 1. Hypopituitarism 2. Pituitary tumors 3. Rickets 4. Hypothyroidism 5. Hyperthyroidism 6. Overgrowth syndromes 7. Chromosomal Disorders B. Polyuria/polydipsia 1. Diabetes mellitus 2. Diabetes insipidus C. Excessive weight gain 1. Exogenous obesity 2. Cushing syndrome D. Acute weight loss 1. Diabetes mellitus 2. Hyperthyroidism 3. Addison's Disease E. Goiter 1. Hypothyroidism 2. Hyperthyroidism F. Seizures 1. Hypoglycemia 2. Hypocalcemia G. Abnormal pigmentation 1. Addison's Disease 2. Acanthosis nigricans	Lecture SGD Preceptorials Demonstration/practice	OSCE/OSPE Written exam Clinical encounter Cards Case-based discussion SGD evaluation form Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	H. Precocious or delayed puberty 1. Pituitary tumors 2. Constitutional growth delay I. Ambiguous genitalia 1. Congenital adrenal hyperplasia 2. Hypopituitarism J. Hypertension 1. Pheochromocytoma		
4. Select appropriate laboratory work-up for the common endocrinopathies	Principles and rationale for the use of different diagnostic examinations A. Growth disorders: Bone aging, growth hormone levels including provocative tests with physiologic and pharmacologic stimulation (exercise, insulin, clonidine, 1-dopa and arginine), insulin-like growth factor-1, insulin-like growth factor binding protein B. Polyuric syndromes: FBS, RBS, blood gas studies, glycosylated haemoglobin, OGTT, plasma and urine ketones, islet cell antibodies, GAD, insulin, C-peptide, insulin antibodies, water deprivation test, vasopressin test, FT3, FT4, TSH, newborn screening, thyroid scan, thyroid ultrasound, TRH stimulation, thyroglobulin, thyroid antibodies, urinary iodine C. Adrenal disorders: Blood sugar, serum and urinary	Lecture SGD Preceptorials	Written exam SGD evaluation form Mini-CEX OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	electrolytes, urinary steroids, plasma cortisol , 17-OH progesterone, aldosterone, plasma rennin activity, dexamethasone suppression test D. Pubertal disorders: LH, FSH, prolactin, estradiol, testosterone, LHRH stimulation test, pelvic ultrasound, karyotyping E. Disorders of bone metabolism: Serum/urinary calcium and phosphorus, alkaline phosphatase, parathyroid hormone, urinary pH, skeletal survey F. Endocrine tumors: Urinary VMA, metanephrine, urinary cortisol imaging studies : CT scan, MRI, MIBG scan		
5. Establish the diagnosis based on supporting evidence	Pathophysiology of endocrinopathies Clinical presentation of endocrinopathies Interpretation of diagnostic tests	SGD PBL Bedside teaching	Written exam SGD output CbD OSCE
6. Discuss the principles of management of common endocrine disorders	Principles of management of common endocrine disorders, including indication, dosage, duration of use and side effects of therapeutic agents, need for hospitalization and referral A. Growth disorders: Growth hormone Thyroid hormone	Lecture SGD Preceptorials Bedside teaching	Written exam SGD output CbD Mini-CEX OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	B. Polyuric syndromes: Insulin Oral hypoglycemics Vasopressin C. Adrenal disorders: Glucocorticoid Mineralocorticoid D. Pubertal disorders: Estrogen Progesterone Testosterone LHRH agonist E. Disorders of bone metabolism: Calcium Vitamin D		
7. Discuss endocrine emergencies and the principles of management	A. Diabetic ketoacidosis 1. Fluids 2. Electrolytes 3. Insulin B. Hypoglycemia 1. IV glucose C. Adrenal crisis 1. Glucocorticoids 2. Mineralocorticoids D. Thyroid storm 1. Glucocorticoids 2. Antithyroids E. Hypocalcemia 1. IV Calcium	SGD PBL Preceptorials Bedside teaching	Written exam Mini-CEX CEC

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
8. Outline a program for follow-up and rehabilitative care		Lecture SGD PBL Preceptorials Bedside teaching	Written exam SGD evaluation form Mini-CEX
9. Identify the onset or presence of complications, need for further treatment		Lecture SGD PBL Preceptorials Bedside teaching	Written exam SGD output CbD CEC

GASTROENTEROLOGY AND HEPATOLOGY

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Correlate the structure with function of the digestive system	Anatomy of the esophagus, stomach, small intestines, large intestines, liver, biliary tree, pancreas and spleen Physiology of swallowing, digestion & absorption, esophageal, gastric & intestinal motility, bile formation & pancreatic function Functions, absorption and requirements (RENI) of carbohydrates, protein, fats, fat-soluble & water-soluble vitamins & micronutrients	Lecture-discussion Oral report SGD	Written exam Grading oral presentation SGD outputs
2. Elicit a complete and accurate history	a. Important details in history taking in patients with the following problems: - vomiting - abdominal pain - diarrhea - bleeding - jaundice b. Malnutrition - Clinical features of different types of protein-energy malnutrition (PEM); vitamin A		

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	- deficiency, iron deficiency anemia, goiter (VADAG); micronutrient deficiency (zinc, vitamin D, copper, calcium) Interpretation of growth curves using Z scores		
3. Perform a systematic and thorough physical examination	Steps in PE Anthropometric measurements and proper interpretation Proper attitude, including respect, concern for patient's comfort and safety, confidentiality	-Video presentation -Bedside demonstration -Anthropometric measurements & proper interpretation of WHO growth curves	Practical exam OSCE Clinical performance
4. Select appropriate diagnostic tests and procedures to establish the cause of these disorders	Diagnostic tests, rationale, interpretation: Blood examination, stool examination, hepatitis profile, special examinations for metabolic disorders, radiographs, ultrasound, endoscopy		
5. Diagnose various gastrointestinal and hepatic disorders based on the clinical features, manifestations and symptoms	Acute gastroenteritis with different types of dehydration (isotonic, hypotonic, hypertonic) Intestinal obstruction (partial, complete; upper, lower) Constipation (functional, organic causes) Cholestatic jaundice among young infants:	Reporting Case discussion Journal reporting	Written exam Oral presentation Audit Institution of appropriate & proper diagnostic tests & specific management of various diseases

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	neonatal hepatitis & biliary atresia Cholestatic jaundice among older infants: viral hepatitis (ABCDEF), Metabolic causes: Wilson Disease, Alpha – 1 anti-trypsin Malnutrition: marasmus, kwashiorkor & marasmus-kwashiorkor Vitamin A deficiency, iron deficiency anemia, goiter (VADAG) Gastroesophageal Reflux Disease (GERD) Gastritis Pancreatitis		
6. Outline proper management of gastrointestinal, hepatic and nutritional disorders *(Please see Module on Nutritional Disorders)*	Proper management of common gastrointestinal, hepatic and nutritional disorders	Report SGD PBL Journal report Bedside teaching	Written exam Oral presentation CbD Clinical performance rating OSCE

HEMATOLOGY

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Obtain a complete history (to emphasize red flags for hematologic disorders) 2. Construct a pedigree 3. Perform a complete physical examination 4. List the differential diagnoses 5. Discuss the anatomic, physiologic, and pathophysiologic bases of the differential diagnoses 6. Come up with a working diagnosis based on supporting evidence	A. Anemias 1. Anemia due to blood loss 2. Nutritional anemias 3. Hemolytic anemias 4. Bone marrow failure B. Bleeding 1. Platelet disorders 2. Coagulation disorders C. Hematologic cancers 1. Acute leukemias 2. Chronic myelogenous leukemia	Lecture SGD PBL Preceptorials Bedside teaching	Written exam SGD output CEC OSCE CbD
7. Choose the appropriate work-up for the common hematologic disorders	A. Anemias: CBC, red cell morphology,RBC indices, peripheral blood smear, Coomb's test, G6PD level, Hemoglobin electrophoresis, HPLC,serum iron, TIBC, serum ferritin, serum folic acid, Vitamin B12 assay, osmotic fragility test, stool exam (to include occult blood), bilirubin levels, bone marrow examination	Lecture SGD Preceptorials	Written exam SGD evaluation forms Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	B. Bleeding disorders: CBC, platelet count, peripheral blood smear, bleeding time, prothrombin time, partial thromboplastin time, thrombin time, CRT, clot lysis, coagulation factor assay, fibrin degradation products, Von Willebrands Factor C. Hematologic cancers: CBC, platelet count, peripheral blood smear, reticulocyte count, bone marrow exam, lymph node biopsy, uric acid, LDH, immunophenotyping flow cytometric		
8. Establish the diagnosis based on supporting evidences	Criteria for diagnosis of hematologic disorders	Lecture SGD Bedside teaching Preceptorials	Written exam OSCE Case-based discussions
9. Discuss the principles in the management of common hematologic disorders	Indication, dosages, onset of action, duration of use, side effects of therapeutic agents, blood component products, therapeutic interventions, procedures, and appropriate referral to specialists:	Lecture SGD Bedside teaching Preceptorials	

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	A. Anemias Proper diet/ proper hygiene Hematinics Steroids Immunosuppressives Blood component therapy Surgery Genetic counseling B. Bleeding Disorders Steroids Blood component therapy IV immunoglobin infusion Rhogam infusion Vitamin K Surgery C. Hematologic cancers Blood component therapy Chemotherapy Antibiotics Radiotherapy Bone marrow transplant Stem cell transplant		
10. Identify hematologic emergencies and their management	A. High output failure/ low output failure 1. pRBC transfusion 2. Diuresis 3. Inotropic agents	SGD PBL Preceptorials Bedside teachings	Mini-CEX CEC

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	B. Bleeding (massive/ fatal) 1. IVF 2. Blood component therapy 3. IV immunoglobulin infusion 4. Rhogam infusion 5. Coagulation factor infusion 6. Steroids 7. Surgery C. Tumor lysis syndrome 1. IVF 2. Diuresis 3. NAHCO3 4. Allopurinol 5. Kayexalate/ insulin 6. Calcium gluconate		
11. Outline a program for follow-up and rehabilitative care	Proper monitoring and follow up of patients with hematologic disorders Rehabilitative care	Lecture SGD Preceptorials Bedside teachings	Written exam SGD outputs Mini-CEX OSCE CEC

IMMUNOLOGY

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Describe the normal immune response	Ontogeny of the immune response Innate immune system Cellular: macrophage/monocyte, natural killer cell, phagocyte Soluble factors: complement, cytokines, acute phase reactants Adaptive immune system T cell B cell Interaction between the different arms of the immune system	Lecture SGD Preceptorials Self-instructional manuals	Written exam Written report Checklist
2. Describe and discuss the abnormal immune response a. Immunodeficiency (primary vs secondary immunodeficiency) b. Autoimmunity c. Immunodysregulatory states (relationship of allergy to immune dysregulation)	Definition of primary and secondary immunodeficiency Mechanisms for immunodeficiency, autoimmunity and immune dysregulation Specific defects of: Phagocytic disorders T cell disorders B cell disorders Combined T and B cell immune deficiency Complement disorders Syndrome complexes	Lecture SGD Preceptorials Self-instructional manuals	Written exam Written report Checklist
3. Elicit a complete Immunologic history and perform a comprehensive physical	Jeffrey Modell Foundation (10 warning signs of immunodeficiency) 4 or more new ear infections within 1 year	SGD Preceptorials Bedside teaching Self-instructional manuals	Written exam Written report Checklist

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
examination	2 or more serious sinus infections within 1 year 2 or more months on antibiotics with little effect 2 or more pneumonias within 1 year Failure of an infant to gain weight or grow normally Recurrent, deep skin or organ abscesses Persistent thrush in mouth or fungal infection on skin Need for intravenous antibiotics to clear infection 2 or more deep seated infections Including septicemia Family history of primary Immunodeficiency		
4. Perform a complete physical examination on patients with symptoms referable to the immune system	Growth parameters Dysmorphic features Skin and mucous membranes Ear, nose, and throat Pulmonary Cardiovascular Lymphoreticular system Neurologic Musculoskeletal	Demonstration-return demonstration SGD Preceptorials Bedside teaching Self-instructional manuals	Written exam Written report Checklist
5. Integrate history and physical examination to make a diagnosis	Phagocytic defects T cell defects B cell defects Complement defects	Required readings Lecture SGD Preceptorials or supervised	Written exam Written report Checklist

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Combined T and B cell defects	Patient encounters Self-instructional manuals	
6. Discuss the differential diagnosis of immune deficiency	Anatomic and structural defect (eg., cleft palate and recurrent ear Infections) Biochemical and metabolic deficiencies Nutritional deficiencies (protein-calorie malnutrition, specific vitamin/mineral deficiencies) Autoimmune diseases Allergic diseases Malignancies Immunosuppressive therapy Chronic debilitating illnesses (eg., DM, TB) Genetic disorders	Lecture SGD Preceptorials Bedside teaching Self-instructional manuals	Written exam Written report Checklist
7. Discuss the multiple factors affecting the development of immunologic disorders	Environment Genetics Nutrition	Lecture SGD Self-instructional manuals	Written exam Written report Checklist
8. Determine the etiology through appropriate immunologic work-up: Primary immune disorders T cell defects B cell defects Phagocytic defects Complement defects Combined T and B cell defects	Initial immunologic screening tests: CBC Serum Immunoglobulins (Igs) Chest Xray Nitroblue tetrazolium test (NBT) CH50	Lecture SGD Preceptorials Self-instructional manuals	Written exam Written report SGD output

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
Secondary immune disorders Infections (HIV, TB) Debilitating diseases Malignancy Autoimmune diseases Nutritional deficiencies			
9. Outline a plan of management for: T cells defects B cell defects Phagocytic defects Complement defects	General principles in the management of immunologic disorders and include issues on vaccination	Lecture SGD Preceptorials Self-instructional manuals	Written exam Written report Checklist
10. Provide health education to the patient and their families	Genetic counseling Good hygiene and isolation when necessary Adequate management of diseases Intravenous gamma globulin (IVIG) Proper antibiotics Bone marrow transplantation Gene therapy Awareness of early signs and symptoms Early recognition and correction of anatomic or structural defects Multidisciplinary team	Lecture SGD Role play Preceptorials Bedside teaching Self-instructional manuals	Written exam Written report Checklist

INFECTIOUS DISEASES

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Recognize common clinical presentations of infectious diseases, and be familiar with the usual infectious causes of these conditions	Etiology Epidemiology Pathogenesis / pathophysiology Clinical presentation Differential diagnosis: Fever Fever without localizing signs Fever of unknown origin (FUO) Fever with localizing signs A. Rash B. Cutaneous lesions other than rash C. Lymphadenopathy D. Headache and/or altered sensorium E. Seizure F. Eye discharge G. Sore throat H. Ear pain I. Cough J. Cyanosis K. Abdominal pain L. Jaundice M. Hepatosplenomegaly N. Diarrhea O. Dysuria P. Genital discharge Joint pain	Lecture SGD Slide / video presentation Bedside teaching	Written exam OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
2. Choose appropriate work-up to reach definitive diagnosis of common infections conditions	CBC Urinalysis Stool examination Analysis and culture of blood, discharges and other body fluids Serological test Immunological tests (eg, Mantoux test) Radiologic and other imaging procedures Other ancillary procedures	Lecture SGD PBL Bedside teaching / ward rounds	Written exam
3. Establish the diagnosis of patients	Diagnosis of the following infectious diseases: A. Bacterial infections Cholera Diphtheria Escherichia coli and other gram negative enterobacterial infections Gonorrhea Hemophilus influenzae infection Leprosy Leptospirosis Meningococcal infections Pertussis Pneumococcal infections Salmonella infection (typhoid, non typhoid) Shigellosis Staphylococcal infections		

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Streptococcal infections Syphilis Tetanus Tuberculosis B. Viral infections AIDS and HIV infections Cytomegalovirus infections Dengue fever/dengue hemorrhagic fever Encephalitides and aseptic meningitis (vs. purulent, TB, fungal) Epstein-Barr virus Enteroveral (poliomyelitis, coxsackie A and B, echo virus) Hepatitis A-G Herpes simplex virus, types 1 and 2 Influenza and influenza-like infections Mumps Rabies Rubella, rubeola and other viral exanthems Varicella zoster virus C. Parasitic diseases Amebiasis Ascariasis Balantidiasis Capillariasis		

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Enterobiasis Filariasis Giardiasis Hookworm infection Malaria Paragonimiasis Pneumocystis carinii infection Scabies Schistosomiasis Strongyloidiasis Trichuriasis Toxoplasmosis D. Fungal infections Candidiasis Cryptococcosis Aspergillosis		
4. Outline a plan of management	Specific treatment via judicious use of antimicrobials Symptomatic treatment Supportive treatment	Lecture Bedside teaching / ward rounds SGD	Written exam
5. Recognize complications and determine the need for initial management and/or referral	Common complications of infectious diseases as listed in "Content" #3	Lecture Bedside teaching / ward rounds	Written exam
6. Institute appropriate prevention and control	Isolation Chemoprophylaxis Immunization (passive / active) Preventive measures: good hygiene, environmental sanitation, proper waste disposal	Lecture Bedside teaching / ward rounds SGD	Written exam

NEONATOLOGY

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Clinically recognize the normal newborn	Absence of maternal and fetal risk factor Natural history of normal pregnancy Normal process of labor and delivery Fetal circulation Neonatal/adult circulation	Lecture-discussion SGD PBL Role playing Actual patient encounter	Written exam SGD output Clinical performance
2. Discuss Essential Intrapartum and Newborn Care (EINC) practices	Core principles of Essential Intrapartum and Newborn Care (EINC) Evidence-based Standard Practices: Immediate & thorough drying Skin-to-skin contact Properly time cord clamping Non-separation of mother and baby Early latching less than 1 hour of life	Lecture-discussion SGD PBL Mother's class	Written exam SGD output
3. Perform a complete physical examination, including APGAR score and neurologic examination	Physical examination technique Neurologic maneuvers Normal physical findings State of alertness Vital signs Components of APGAR score and interpretation Anthropometric measurements Gestational aging (Ballard's exam) Inspection, palpation, auscultation, percussion Normal physiologic variations in	Lecture-discussion SGD PBL Instructional video Role playing Demonstration-return demonstration Actual patient encounter	Written exam SGD output Clinical performance Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	newborn Primitive reflexes Levels of alertness (sensorium)		
4. Provide comprehensive newborn care	Risk assessment: maternal, fetal and neonatal factors Application of EINC protocol to infants (34 weeks AOG or older) Neonatal resuscitation Cord care Thermoregulation Bathing Vitamin K prophylaxis Eye prophylaxis Immunizations (Hepatitis B, BCG) Kangaroo care Lactation promotion	Lecture-discussion SGD PBL Instructional video Demonstration-return demonstration	Written exam SGD output Clinical performance Mini-CEX
5. Recommend newborn screening after 24 hours of life	Concept, significance of newborn screening, procedures involved and implications of results	Lecture-discussion SGD PBL Demonstration-return demonstration Bedside teaching Actual patient encounter	Written exam SGD output Clinical performance Mini-CEX OSCE
6. Provide proper newborn care instructions to parents and caregivers	Involvement of both parents Kangaroo care Lactation promotion Expression and storage of breast milk Cord care Signs of illness in the newborn Well baby visits and immunizations	Lecture-discussion SGD PBL Demonstration-return demonstration Bedside teaching Actual patient encounter	Written exam SGD output Clinical performance Mini-CEX OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
7. Discuss the anatomic, physiologic and pathophysiologic basis of the manifestations of problems in the newborn	Deviation/aberration in intrauterine growth Predisposing maternal, placental, and fetal factors Classification of newborns according to the Lubchenco chart Anatomic and physiologic handicaps, potential pathologies (risk assessment) peculiar to each category Feeding difficulties Anatomic and physiologic development of the digestive system Fluid, electrolyte, caloric, nutrient requirements of the newborn Normal variations in feeding patterns Signs and symptoms suggestive of a feeding problem Respiratory distress Physiology of normal breathing in the newborn Signs and symptoms of respiratory distress Definition of apnea Forms of cyanosis Differences between pulmonary and non-pulmonary causes of respiratory distress Classification of condition	Lecture-discussion SGD PBL Demonstration-return demonstration Bedside teaching Actual patient encounter	Written exam SGD output Clinical performance Mini-CEX OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	according to severity System/s involved based on history and physical examination Vomiting, diarrhea, abdominal distension Normal stool patterns of the newborn Differences between organic and non- organic causes of abdominal distension Manifestations of intestinal obstruction and corresponding level of obstruction Abnormal secretions / discharges Source/s of abnormal discharges based on history and gathered data Pallor and bleeding Normal hematologic values in the newborn Normal coagulation process Causes of neonatal anemia Differences between acute and chronic blood loss Different sources of bleeding Jaundice Neonatal bilirubin metabolism Differences between physiologic and pathologic jaundice Various types of		

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	hyperbilirubinemia Jitteriness/ seizures Differences between jitteriness and seizure Different types of neonatal seizures Correlation of seizure with possible cause/s Meconium-related disorders Classification of meconium staining Prenatal/ perinatal factors predisposing to the condition Concomitant signs of fetal distress on fetal monitoring Potential problems relating to meconium staining Pathophysiology behind potential problems Temperature instability Different methods of obtaining body temperature and its corresponding normal values Signs and symptoms of temperature abnormality Acceptable alternative methods of taking body temperature Sensorial problems Signs of irritability, alterations in consciousness, changes in muscle tone		

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Predisposing factors to above condition/s		
8. Elicit an accurate and thorough history with focus on character and circumstances surrounding the manifestations	Clinical presentation of problems in the newborn: A. Deviations/ aberration in intrauterine growth B. Feeding difficulties C. Cyanosis, respiratory distress and apnea D. Vomiting, diarrhea, abdominal distension/ constipation E. Abnormal secretions/ discharges F. Pallor and bleeding G. Jaundice H. Jitteriness/ seizures I. Meconium- related disorders J. Temperature instability K. Sensorial problem	Lecture-discussion SGD PBL Demonstration-return demonstration Bedside teaching Actual patient encounter	Written exam SGD output Clinical performance Mini-CEX OSCE
9. Perform a complete physical and neurologic examination	Clinical findings	Lecture-discussion SGD PBL Instructional video Role playing Demonstration-return demonstration Actual patient encounter	Written exam SGD output Clinical performance Mini-CEX
10. List differential diagnosis based on evidence		Lecture-discussion SGD	Written exam SGD output

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
		PBL Demonstration-return demonstration Bedside teaching Actual patient encounter	Clinical performance Mini-CEX OSCE
11. Describe the natural course of the illness		Lecture-discussion SGD PBL Demonstration-return demonstration Bedside teaching Actual patient encounter	Written exam SGD output Clinical performance Mini-CEX OSCE
12. Determine the probable cause through appropriate work-up	Asphyxia of the newborn ABG analysis Urinalysis Occult blood in stools Cranial CT scan Renal function tests ECG Chest x-ray Coagulation studies EEG Intrauterine growth retardation CBC Microbiologic studies Serologic studies Chromosomal studies Newborn screening Respiratory distress syndrome Chest x-ray ABG analysis	Lecture-discussion SGD PBL Demonstration-return demonstration Bedside teaching Actual patient encounter	Written exam SGD output Clinical performance Mini-CEX OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Infections CBC Culture and sensitivity of body fluids/secretions Cranial ultrasound/CT scan Hemolytic disease of the newborn CBC Coomb's test Blood typing of mother/ baby Peripheral smear Hematologic tests on other family members Bilirubin levels Meconium aspiration syndrome Chest x-ray ABG analysis Hemorrhagic disease of the newborn Coagulation studies, PT/ PTT, coagulation factor determination Apt's test Birth trauma Cranial ultrasound Cranial CT scan Radiographic examination of body parts Metabolic disorders Hemoglucotest Serum electrolytes Serum calcium and magnesium		

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Urine metabolic screen Renal function tests Anatomic congenital anomalies Imaging studies of organ involved		

NEPHROLOGY

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Recognize presenting signs and symptoms of the ten (10) most common renal syndromes 2. Elicit a complete and accurate history 3. Perform a complete physical examination 4. List the differential diagnoses 5. Discuss the epidemiologic basis of the common renal syndromes	Pathophysiology, epidemiology, clinical presentation, red flags of the following renal syndromes: A. Glomerular diseases 1. Hematuria 2. Proteinuria 3. Oliguria/anuria 4. Hypertension 5. Post-infectious glomerulonephritis 6. Nephrotic syndrome B. Tubular disorders 1. Polyuria and polydipsia 2. Renal tubular acidosis 3. Tubulointerstitial nephritis C. Fluid and electrolytes 1. Hyponatremia 2. Hypernatremia 3. Hypokalemia 4. Hyperkalemia 5. Hypocalcemia 6. Acid-base disorders D. Systemic diseases 1. Systemic lupus erythematosus 2. Henoch-Schoenlein purpura 3. Infectious diseases of the kidney	Lecture SGD Preceptorials Demonstration/ practice	OSCE Written exam CEC CbD SGD output Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	E. Hypertension 1. Primary 2. Secondary F. Urinary tract disorders 1. Urinary tract infection (UTI) 2. Urolithiasis 3. Obstructive uropathy G. Congenital anomalies of the kidneys and the urinary tract (CAKUT) H. Renal tumors 1. Wilms tumor 2. Renal cell carcinoma I. Acute kidney injury 1. Pre-renal 2. Intrinsic 3. Post-renal J. Chronic kidney ddisease		
6. Select appropriate laboratory work-up for the 10 common renal syndromes	Principles, rationale, proper collection and correct interpretation of diagnostic examinations for renal problems: • Complete blood count • Urinalysis • Urine culture and sensitivity • Blood chemistries: BUN, creatinine, serum Na, K, Cl, calcium, phosphorus, magnesium, uric acid, TPAG, lipid profile (include	Lecture SGD Preceptorials	Written exam OSCE Mini-CEX SGD evaluation form

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	cholesterol, triglycerides) • Arterial blood gas • Urine protein creatinine ratio or 24 hour urinary protein collection • Creatinine clearance • Imaging studies – ultrasonography, Doppler studies, x-rays, nuclear imaging, CT scan • Ultrasound guided renal biopsy		
7. Arrive at a working diagnosis based on supporting evidence			
8. Discuss the principles of management of common renal disorders	Indication, precaution, dosage, duration of use, side effects of therapeutic agents: • Antimicrobials • Diuretics • Anti-hypertensives • Steroids and immunosuppresants • Renal supportive treatments – erythropoietin, iron supplement, sodium bicarbonate, calcium supplement, vitamin D • Renal replacement therapy-Dialysis [peritoneal dialysis (PD) and hemodialysis (HD)]	Lecture SGD Preceptorials	Case-based discussion SGD evaluation form OSCE Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	and kidney transplantation • Surgical procedures		
9. Recognize emergencies	• Pulmonary congestion • Hypertensive emergencies/urgencies • Uremic syndromes • Severe electrolyte and acid base disorders	Case-based learning	Mini-CEX Clinical encounter Cards Written exam
10. Outline a program for follow-up and rehabilitative care		Lecture SGD Preceptorials	OSCE Mini-CEX SGD output
11. Identify the onset or presence of complications, need for further treatment		Lecture SGD Preceptorials	SGD CbD CED

NEUROLOGY

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Classify common neurologic problems in terms of etiology and given diagnostic criteria	Etiology of common neurologic problems Definition and classification of: • Seizures • Epilepsy syndromes (1989. ILAE) • Non-epileptic movement disorders (based on ILAE 2010, 1989 & 1981) • Primary headaches • Secondary headaches (Classification of headache based on International Headache Society) • Criteria for the diagnosis of headache and increased intracranial pressure: • Head trauma (Treatment Guidelines and Pediatric Glasgow Coma Scale) • Congenital malformations (cranial and spinal) • CNS infections • Movement disorders Embryogenesis: Ontogenesis in the development of the nervous system (timelines in the	Lecture-discussion SGD PBL	Written exam SGD output Group presentation Oral exam

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	development of malformations according to time of consult)		
2. Describe the clinical presentation of common neurologic problems	Clinical presentation of common neurologic problems: • Seizure • Headache • Head trauma • Congenital anomalies • Developmental delay • Weakness • Movement disorders Red flags in the developmental milestones Age limit for developmental milestones Algorithm in the diagnosis and management of children with developmental delay Clinical characteristics of central vs. peripheral cause of motor weakness (UMN vs. LMN) Algorithm in the diagnosis of patients with common neurologic symptoms/signs: • Headache • Seizures with fever • Seizures without fever	Lecture-discussion SGD PBL Bedside teaching	Written exam SGD output Group presentation Oral exam

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	• Developmental delay (language, motor, conduct/behavior problems) • Congenital malformations • Dysmorphisms		
3. Elicit a complete and accurate history focusing on red flags for developmental delays and neurologic problems	Components of neurological history and pediatric history Skill in history taking	Lecture-discussion SGD PBL Demonstration-return demonstration Instructional video Bedside teaching Actual patient encounters	Written exam SGD output Group presentation Oral exam Clinical performance Mini-CEX CEC OSCE
4. Perform systematic and thorough physical and neurologic examination in various pediatric age groups	Knowledge of neuroanatomy and neurophysiology Steps and proper technique in doing PE and neurological examination Neurologic instruments	Lecture-discussion SGD PBL Demonstration-return demonstration Instructional video Bedside teaching Actual patient encounters	Written exam SGD output Oral exam Clinical performance Mini-CEX CEC OSCE
5. Identify logical differential diagnosis based on signs and symptoms	Localization based on signs and symptoms Differential diagnosis considering the patient's age, sex, clinical course, findings and other associated conditions	Lecture-discussion SGD PBL Bedside teaching Actual patient encounters	Written exam SGD output Oral exam Clinical performance Mini-CEX CEC

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
			OSCE
6. Select appropriate diagnostic examination to establish the diagnosis	Indications, contraindications of the following examinations: • Skull series • CSF examination (lumbar puncture) • CT scan (plain and with contrast) • MRI (head and spine) • Cranial ultrasound • EMG/NCV • Muscle biopsy • Nerve biopsy • Spine x-rays	Lecture-discussion SGD PBL Bedside teaching Actual patient encounters	Written exam SGD output Oral exam Clinical performance Mini-CEX CEC OSCE
7. Outline the appropriate plan of management for patients with neurologic problems	Short-term, long-term, pharmacologic, surgical treatment and rehabilitation of neurologic disorders: • CNS infection (viral, bacterial, TB) • Hydrocephalus • Meningocoele/ encephalocoele • Seizures and epilepsy syndromes • Epilepsy and epilepsy syndromes	Lecture-discussion SGD PBL Bedside teaching Actual patient encounters	Written exam SGD output Oral exam Clinical performance Mini-CEX CEC OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	• Brain and spinal tumors • Increased intracranial pressure • Movement disorders • Acute flaccid paralysis • Head and spine injury • Headache and migraine • Inborn errors of metabolism • Congenital CNS infections. • Neuromuscular disorders: Myasthenia Gravis • Congenital muscular dystrophy • Mental retardation		
8. Discuss causes, clinical presentation, and management of neurologic emergencies	Normal intracranial pressure and physiology of CSF production and circulation Pathophysiology of increased intracranial pressure Herniation syndromes, clinical signs and anatomic correlates Definition and algorithm in the management of status epilepticus Definition and causes of coma and stages of altered consciousness Pediatric Glasgow Coma Scale	Lecture-discussion SGD PBL Bedside teaching	Written exam SGD output Oral exam

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
9. Discuss with patient and family the neurologic problem, course, prognosis and management	Communication skill Obtaining informed consent Family counselling technique	Lecture-discussion SGD PBL Bedside teaching Actual patient encounters	Written exam SGD output Clinical performance Mini-CEX CEC OSCE

ONCOLOGY

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Identify presenting signs and symptoms of common malignancies in children	Red flag signs Clinical presentation of benign vs. malignant tumors Common pediatric tumors Syndromes and systemic manifestations associated with pediatric malignancies. Feminization Virilization Bleeding Others such as WAGR, hypertension, hemihypertrophy	Lecture-discussion SGD PBL Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE
2. Elicit complete and accurate history	Components of medical history Red flags Clinical presentation of common malignancies Communication skill Interpersonal skill Respect for confidentiality	Lecture-discussion SGD PBL Demonstration-return demonstration Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
3. Perform thorough physical examination	Steps in doing PE Communication skill Compassion Respect for patient's safety, comfort and privacy	Lecture-discussion SGD PBL Demonstration-return demonstration Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE
4. Select appropriate diagnostic examinations to establish the diagnosis	Blood examinations, including tumor markers Imaging studies: x-rays, ultrasound, CT scan, MRI Biopsy	Lecture-discussion SGD PBL Demonstration-return demonstration Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
5. Arrive at a logical diagnosis and differential diagnosis	Criteria for diagnosing and staging common malignancies 1. CNS tumors a. supratentorial (glioma, ependymoma) b. infratentorial (cerebellar medulloblastoma, brain stem glioma) 2. Retinoblastoma 3. Liver tumors (malignant hepatoblastoma, benign hemanioendothelioma) 4. Renal tumors (malignant Wilms tumor, benign mesoblastic nephroma) 5. Adrenal and endocrine tumors (neuroblastoma, pheochromocytoma)	Lecture-discussion SGD PBL Demonstration-return demonstration Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE
	6. Soft tissue tumors (rhabdomyosarcoma, fibrosarcoma) 7. Bone tumors (osteosarcoma, Ewing sarcoma) 8. Germ cell tumors (germinoma) 9. Histiocytic (Langerhans cell histiocytosis)		

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
6. Recognize oncologic emergencies	Clinical presentation and pathophysiology of oncologic emergencies: Tumor lysis syndrome Superior vena cava syndrome Intestinal and genitourinary obstruction Neurologic symptoms	Lecture-discussion SGD PBL Demonstration-return demonstration Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE
7. Discuss the general principles in the management of oncologic emergencies	Management of oncologic emergencies	Lecture-discussion SGD PBL Demonstration-return demonstration Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE
8. Discuss the principles of the different treatment options in the management of childhood malignancies	Treatment options in the management of childhood malignancies: Surgery Chemotherapy: adjuvant vs. neoadjuvant Radiotherapy Palliative care	Lecture-discussion SGD PBL Demonstration-return demonstration Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
9. Recognize the importance of multidisciplinary care	Multidisciplinary approach Team work	Lecture-discussion SGD PBL Demonstration-return demonstration Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE
10. Discuss with the patient/family the nature of the problem and management options	Psychological, social, emotional aspects of illness Principles of disclosure Empathy Communication skill Interpersonal skill Honesty Confidentiality	SGD PBL Demonstration-return demonstration Role play Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE
11. Promote primary and secondary cancer prevention	Communication skills Risks associated with malignancies Primary and secondary cancer prevention	Lecture-discussion SGD PBL Public health lecture Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE
12. Recognize the roles of family, primary physician, government agencies and private organizations, in the management of childhood malignancy	Team work Involvement of the family and other institutions in the care of the patient	Lecture-discussion SGD PBL Public health lecture Preceptorials Bedside teaching	Written exam SGD output Clinical performance MiniCEX OSCE

RESPIRATORY DISORDERS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Explain the anatomic, physiologic and pathophysiologic basis of the presenting problem/complaint.	Anatomy and physiology of the respiratory system Pathophysiology of common respiratory complaints: Nasal catarrh Sneezing Hoarseness Cough Stridor Wheezing Gurgly chest (*halak*) Hemoptysis Chest pain Difficulty of breathing Cyanosis	Lecture-discussion SGD PBL	Written exam Graded oral recitation Written report Practical exam Clinical performance rating Oral exam OSCE CEC MiniCEX
2. Elicit a complete history which focuses on the character and circumstances surrounding the complaint.	Complete history of the patient, focus on respiratory complaint/problem Communication skill Interpersonal skill Respect for patient's privacy confidentiality Thoroughness	Demonstration-return demonstration Preceptorials Bedside teaching	Written exam Written report Practical exam Clinical performance rating Oral exam OSCE CEC MiniCEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
3. Perform a complete PE using inspection, palpation, percussion, and auscultation	Complete PE including BP in all extremities, body weight and height (length), cyanosis +/- clubbing of nailbeds, edema , pulses upper and lower extremities, dysmorphic features Cardiac examination: chest symmetry, point of maximal impulse and location, heave, thrill, heart sounds and murmur, rhythm and rate Communication skill Consideration for the patient's safety, comfort and privacy	Instructional video Demonstration-return demonstration Preceptorials Bedside teaching Actual patient encounters	Written exam Graded oral recitation Written report Practical exam Clinical performance rating Oral exam OSCE CEC MiniCEX
4. Determine the most likely abnormality and severity based on information gathered	Correlation and findings on PE with knowledge of the anatomy and physiology of the respiratory system Signs and symptoms presented and their severity	Lecture-discussion SGD PBL Preceptorials Bedside teaching Actual patient encounters	Written exam Graded oral recitation Written report Clinical performance rating Oral exam OSCE CEC MiniCEX
5. List the logical differential diagnosis based on gathered data.	Approach to differential diagnoses Primary diagnosis and bases Upper respiratory tract: A. Rhinitis B. Pharyngitis C. Sinusitis D. Otitis media E. Tonsillitis	Lecture-discussion PBL SGD Bedside teaching	Written exam Graded oral recitation Written report Practical exam Clinical performance rating Oral exam OSCE CEC MiniCEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	F. Epiglottitis G. Acute laryngotracheobronchitis Lower respiratory tract: A. Bronchitis B. Bronchiolitis C. Pneumonia D. Asthma E. Pulmonary tuberculosis		
6. Choose the appropriate diagnostic examinations to establish the diagnosis	Indications, availability, reliability of diagnostic examinations Pulse oximetry Complete blood count Microbiological studies Tuberculin skin tests Blood gas analysis Chest radiograph Special procedures, to include: Spirometry Peak flow measurement Thoracentesis Lung tap Lung biopsy Bronchoscopy Fluoroscopy Chest ultrasonography Ventilation / perfusion scan Computed tomography Magnetic resonance imaging Written informed consent containing:	Lecture-discussion PBL SGD Bedside teaching	Written exam Graded oral recitation Written report Clinical performance rating Oral exam OSCE CEC MiniCEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	Psychological support to the patient and family Importance and principles of asepsis in the collection of biological specimen Interpretation of the results of laboratory tests done Correlation of laboratory test results with the clinical data, differential diagnosis and natural course of the illness Adverse clinical outcomes of diagnostic tests		
7. Establish the diagnosis using evidence	Criteria for the diagnosis of common respiratory diseases	Lecture-discussion PBL SGD Bedside teaching	Written exam Graded oral recitation Written report Practical exam Clinical performance rating Oral exam OSCE CEC MiniCEX
8. Outline a plan of treatment for emergency care, definitive care, and long-term/rehabilitative care for various respiratory diseases	Relevance, availability, socio-economic factors, rehabilitative care and schedule of follow-up in the common respiratory diseases Indications for hospitalization and emergency care of patients with respiratory diseases Steps in emergency care Respiratory resuscitation technique	Lecture-discussion PBL SGD Bedside teaching	Written exam Graded oral recitation Written report Practical exam Clinical performance rating Oral exam OSCE CEC MiniCEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	and stabilization measures Specific therapeutic agents: Decongestants Antihistamines Cough suppressants Mucolytics/expectorants Anti-asthma agents Antimicrobial agents Oxygen Methods of postural drainage, bronchial clapping steam inhalation and inhalational therapy Technique of oro- and naso-pharyngo-tracheal lavage and suctioning Principles of pulmonary rehabilitation Recognition of complications and need for referral Mastoiditis Retropharyngeal abscess Pleural effusion Lung abscess Air leak Atelectasis Respiratory failure Bronchiectasis Cor pulmonale		

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
9. Provide health education to families to prevent occurrence of acquired heart disease and its complications	Effects of respiratory disease to the patient and his family and its implications to the community Epidemiologic factors affecting the occurrence, spread and chronicity of respiratory disease Role of medical, paramedical and traditional health providers in the management and control of respiratory disorders Interaction and dynamics between the family and respiratory disease Preventive measures	SGD Role play Bedside teaching Actual patient encounters	Clinical performance rating OSCE MiniCEX

Section III: SELECTED TOPICS

ADOLESCENT RISK-TAKING BEHAVIORS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Describe the different risk behaviors and related factors	Risk behaviors in adolescents Reasons of concern for the physician Factors that relate to different risk taking behaviors: risk and protective factors Theories on risk taking behavior (the teen brain)	Lecture-discussion SGD PBL	Written exam SGD output
2. Discuss national epidemiology on adolescent mortality and morbidity	DOH goals for healthy adolescents and youth development DOH current statistics on top 10 mortality and morbidity PPS top 10 mortality and morbidity in accredited hospitals	Lecture-discussion SGD	Written exam SGD output
3. Analyze the impact of various risk behaviors on the adolescents	Adolescent sexual behavior and teen pregnancy Suicide and depression Alcohol use Tobacco use Drug use Obesity and overweight and other eating problems Violence	Lecture SGD PBL	Written exam SGD output
4. Do risk assessment of given adolescent patients	Assess developmental needs and determine co-variation in risk behaviors	Lecture Bedside teaching Actual patient encounters	Written exam Clinical performance
5. Provide health guidance for adolescent patients	Health guidance Communication skills	SGD Role play Bedside teaching Actual patient encounters	Clinical performance OSCE

CHILD PROTECTION

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Recognize interpersonal violence, child abuse and neglect as a public health problem and an ethical concern	Epidemiology Human behavior Definitions Barriers to care Society myths	Lecture Community visits Agencies/institution visits SGD	"Child Abuse" Notebook-Reflections SGD output
2. Discuss the primary, secondary & tertiary prevention of interpersonal violence, different forms of child abuse and neglect	Strategies fo primary, secondary, tertiary prevention of interpersonal violence, child abuse and neglect Enumerate the risks & protective factors Importance of the interaction between the child and the environment Anticipatory guidance during Well Child visits Resources & programs available in the community Programs & policies of government eg., Breastfeeding, Parenting, Conditional Cash Transfer	Lecture SGD Case presentation Community visits Agencies/institution visits Preceptorials	"Child Abuse" Notebook-Reflections
3. Diagnose interpersonal violence, the different forms of child abuse & neglect through appropriate medical history, physical findings and laboratory exams when warranted	Appropriate history from child and family Diverse clinical presentations, signs and symptoms Laboratory examinations when warranted Recording & documentation of	Lecture Case presentations Case studies 4R's modules of the Department of Health	Written exam Preceptorials SGD output

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	pertinent findings		
4. Explain the micro and macro effects of interpersonal violence and the different forms of child abuse and neglect	Neurobiological effects of abuse Connection between violence, poverty, substance abuse, crime, educational attainment & health later in life	Lecture SGD Case studies Community visits	Written exam Case studies with reflections
5. Discuss the legal and ethical implications of interpersonal violence, different forms of child abuse and neglect	Philippine laws on domestic violence & child protection Confidentiality Proper documentation Reporting responsibilities Role of the physician Referral system	Lecture SGD Seminars	Written exam Preceptorials Case report

COMMUNITY PEDIATRICS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Identify the relevant data indicative of the child health situation in the community and the factors responsible for it when asked to examine a hypothetical situation, after a tour of the community	Purpose and importance of situational analysis Ecologic concepts of health and disease data categories in the health areas: Demographic Health status Ecologic data Health resources Health policy data Review of sources and methods of data collection, organization and presentation of data Brief overview of vital and health statistics Appraisal of given information Essentials in the preparation of a report	Community-guided tour followed by assigned clinicians / consultants and discussion or field study Project work Hands-on exercises or practice sessions after lecturette by teacher Read handout, then class discussion Critique of report	Graded oral presentation Written report Practical exam Written exam
2. Identify possible sources of assistance using a list of locally available resources to solve problem/s identified and point out possible obstacles when using these resources	How to locate resources and type of resources (NGO, church, health center, DOH, NSO, school, hospital, market place, police outpost)	Class discussion Site visit Seminar paper	Observation Area mapping Written exam
3. Administer first aid, diagnose and treat common childhood complaints a. List question series to explore specific complaint/s	Review major features of history of the patients / health situations Integrated Management of Childhood Illness (IMCI) diagnosis and management protocol Life support in pediatric emergencies	Practice interview on classmate or real patients Video tape sessions and critiquing of history IMCI diagnosis and management using model	Practical exam Written exam Oral exam

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
b. Ask follow-up questions to verify given history c. Determine diagnostic considerations and therapeutic options after completing the history		case Return demonstration	
4. Refer complex cases for prompt intervention a. Identify sources of assistance and service desired b. Complete referral forms after identifying problems faced c. Explain necessity of referral including arrangements to be made with the family of the patient and referral center	Assessing the need for referral Referral possibilities and procedures Reasons / indications for referral Communication with professionals from other disciplines and families	Demonstrate referral process using case model for illustration	Practical exam Written exam
5. Participate in health promotion activities on the following sample topics: a. Child care and nutrition b. Basic sanitation and personal hygiene c. Accident protection and safety promotion d. Vegetable gardening e. Recognition of common infections f. immunization	Brief overview of health education: Communication process Principles and methods Selection and use of audiovisual aids Steps in behavioral change	Lecture-discussion Demonstration Instructional video	Practical exam Written exam Graded lecture demonstration

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
6. Prepare a work plan to address child health problems a. Formulate clear objectives b. List all activities to be carried out, specifying dates of completion and how they will be accomplished c. Lest required resources and who will perform the activities	Steps in preparing the work plan Purpose and activities Resources required Problems anticipated	Project work	Graded oral presentation Written report Critiquing of sample of a work plan
7. Disaster preparedness response	Disaster preparedness program	Disaster demonstration / drills Lecture - demo	Oral report Written exam
8. Prepare an evaluation plan for a specific activity to assess its effects / impact on a target	Why evaluate Steps in evaluating Methods of evaluation Process and outcome evaluation	Project work Group study of an activity / project for evaluation	Graded project evaluation report and oral presentation
9. To train a new breed of health workers that will serve as Primary Health Care teachers • Inculcate value formation • Teaching children and youth the value of early responsibility, respect for elders, love of God, family and neighbor	8 Elements of Primary Health Care Pillars of Primary Health Care Role modeling Lecture demo on selected values	Lecture Project proposal or seminar paper research study	Monitoring and evaluation of the project

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
10. Keeping vulnerable groups informed and educated on available support system	Strengthening of family ties and OFWs Counseling formation To identify children at risk (eg., children caught in arm conflict, street children)	Lecture Project proposal or seminar paper research study	Monitoring and evaluation of the project

EMERGENCY PEDIATRICS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Recognize the seriously ill and/or injured child	Basic principles of triaging Age-related anatomy and normal physiology Focused clinical history taking and physical examination Pattern recognition for physiological and clinical decompensation High risk clinical features	Lecture-discussion Modules SGD PBL Actual patient encounter	Written exam Oral exam SGD output Clinical performance Mini-CEX
2. Diagnose common pediatric medical emergencies	Common pediatric medical emergencies and their causes: a. Shock (hypovolemic, cardiogenic, distributive and obstructive) b. Respiratory distress and failure (pulmonary and non-pulmonary) c. Upper airway obstruction d. Asthma and status asthmaticus e. Bronchiolitis f. Pneumonia g. Rhythm disturbances h. Congestive heart failure (congenital and acquired) i. Gastrointestinal bleeding	Lecture-discussion Modules SGD PBL Preceptorials Bedside teaching Self-directed learning	Written exam Oral exam SGD output Clinical performance Mini-CEX

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	j. Abdominal pain k. Acute gastroenteritis and dehydration l. Fluid and electrolyte disturbances m. Gut obstruction (partial and complete) n. Renal failure (acute and chronic) o. Urinary tract infection in infants p. Seizures and status epilepticus q. CNS infection r. Anaphylaxis s. Sepsis and septic shock t. Diabetic ketoacidosis		
3. Recognize common childhood injuries and pattern of injuries *(Please see Module on Injuries)*	Clinical presentation of common childhood injuries: a. Head injury b. Fractures and soft tissue injury c. Lacerations and wound management d. Motor vehicular accidents e. Burns f. Poisoning g. Drowning and near drowning h. Animal bites	Lecture-discussion Modules SGD PBL Preceptorials Bedside teaching Self-directed learning	Written / oral exam CEC

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	i. Non-accidental injuries		
4. Describe the pathophysiology of the common pediatric medical emergencies	Pathophysiology of common pediatric medical emergencies	Lecture SGD PBL Self-directed learning	Written exam Oral exam SGD output
5. Outline the plan of management for pediatric medical and traumatic emergencies	Basic life support (infant, child and adult) Principles of pediatric advanced life support Structured approach to the acutely ill and/or injured child: a. Airway b. Breathing c. Circulation d. Drugs and disability e. Exposure f. Fluids Specific emergency treatment for each condition Timely referral to subspecialties	Lecture-discussion Video presentation SGD PBL Demonstration-return demonstration Module simulation Problem-based discussion ER team participation Self-directed learning	Written exam SGD output CEC
6. Outline complications associated with common pediatric medical and traumatic emergencies	Common pediatric medical emergencies Common childhood Iinjuries	Lecture-discussion SGD PBL Self-directed learning	Written exam Oral exam SGD output
7. Perform common pediatric procedures	Bag-mask ventilation Basic cardiopulmonary resuscitation	Lecture-discussion Video presentation Demonstration-return	Clinical performance Practical exam OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	IV cannulation Nasogastric/orogastric tube insertion Lumbar puncture Foley catheter insertion Basic suturing and wound dressing Spine and neck immobilization and hard collar application Splinting techniques Basic foreign body removal	demonstration Actual patient encounter	DOPS

ENVIRONMENTAL PEDIATRICS AND POISONING

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Explain the concept of pediatric environmental health	Pediatric environment health Physical and human environment Vulnerability of the pediatric age group to environmental toxins	Lecture-discussion SGD PBL	Written exam SGD output
2. Discuss the vulnerability of children to environmental toxicants	Critical windows of vulnerability in the different age groups	Lecture-discussion SGD PBL	Written exam SGD output
3. Identify the common environmental threats to the health of children	Sources of exposure and clinical presentation of common toxicities: Lead Mercury Arsenic Indoor and outdoor air pollution Environmental tobacco smoke Pesticides Drinking water contamination Endocrine disruptors Food contaminants Herbs, dietary supplements Noise Electric and magnetic fields Ionizing radiation Biphenyls and dioxin	Lecture-discussion SGD PBL	Written exam SGD output
4. Recognize specific physical examination findings that may signal environment toxicant exposure	Physical examination findings that may signal environment toxicant exposure: A. Pallor B. Cyanosis C. Hyperkeratosis	Lecture demonstration Discussion	Written exam Direct observations

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	D. Chloracne E. Mee's lines F. Gingival lines G. Wheezing H. Chronic abdominal pain and colic I. Diarrhea J. Seizures K. Attention deficit-hyperactivity disorders L. Development delays		
5. Integrate environmental issues or concerns into health supervision (ie,, well and sick child visits, continuity clinic, in-patients, etc.)	Daily environmental issues or concerns Diet Hobbies Child and adolescent employment	Lecture-discussion SGD PBL Bedside teaching Actual patient encounters	Written exam SGD output MiniCEX OSCE Clinical performance
6. Provide anticipatory guidance to prevent and abate exposures	Preventive measures	Lecture-discussion SGD PBL Bedside teaching Actual patient encounters	Written exam SGD output MiniCEX OSCE Clinical performance
7. Apply the principles of risk assessment to common environmental toxicants	Principles in risk assessment	Lecture-discussion SGD PBL Bedside teaching Actual patient encounters	Written exam OSCE
8. Demonstrate the skills for risk communication in relation to environmental pediatrics	Communication skills	Role play Bedside teaching Actual patient encounters	Project report

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
9. Encourage parents to seek solutions to their environmental concerns through education from their health care provider local and national resources and organizations	Health education Environmental health advocacy	SGD PBL Role play Actual patient encounter	Clinical performance

ETHICAL ISSUES IN PEDIATRICS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITITIES	SUGGESTED EVALUATION METHODS
1. Discuss basic concepts in medical ethics	Faith theory in relation to medicine The human person as an individual requiring dignity and respect Rights of children	Lecture SGD PBL	Oral exam Written exam SGD output
2. Explain the bioethical principles	Bioethical principles: Autonomy / paternalism Informed consent Truth telling Stewardship Withholding information, privacy and confidentiality Beneficence and maleficence Double effect Totality Cooperation Justice	Lecture-discussion SGD PBL	Oral exam Written exam
3. Apply the principles of medical ethics in physician-patient relationship	Oath of Hippocrates Philippine Medical Association / Philippine Pediatric Society Medical Code of Ethics Physician-physician relationship (consult and referrals) Physician-nurse relationship Physician-student relationship Assent of children Truth telling and professional secrecy Proxy decision making and informed consent Issues regarding professional fees and	Lecture-discussion PBL Bedside teaching Actual patient contact	Oral exam Written exam Written report Clinical performance rating OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITITIES	SUGGESTED EVALUATION METHODS
	honoraria		
4. Elaborate on principles of ethics in physician-God relationship	Allocation of scarce resources / poverty-related issues Relationship with pharmaceutical firms Virtues of a physician Rights to religious belief	SGD PBL	Reflection paper
5. Discuss issues regarding life, death and dying	Sanctity of life Care of terminally ill child: palliative / hospice care Care of defective newborn / special children Withdrawing and withholding life-prolonging treatment Ethical and legal issues in organ Transplantation	Lecture SGD Actual patient encounters Bedside teaching	Oral exam Written report Reflection paper SGD output Clinical performance OSCE
6. Discuss ethical and legal issues involving research in children	Legal issues	Lecture-discussion SGD PBL	Written exam SGD output Reflection paper
7. Discuss the Human Genome project	Implication of gene therapy Advantage and disadvantages of screening and counseling	Lecture SGD, PBL Case study	Written exam SGD output
8. Recognize the role of bioethics committee/ Institutional Review Board (IRB)	Role of Bioethics Committee and Review Board	Lecture SGD, PBL Case study	Written exam SGD output
9. Demonstrate ethical and professional practice in all dealings with patients, their families and the other members of the healthcare team	Ethical principles Professionalism	Bedside teaching Actual patient encounters	MiniCEX Clinical performance MSF

GENETICS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Realize the burden of genetic disorders in childhood	1. Health impact of birth defects and inborn errors of metabolism locally (incidence, diagnostic delays, barriers to effective genetic services) 2. Discuss ways for prevention of genetic disorders (ie., folic acid, genetic counselling, birth defects surveillance initiatives)	SGD PBL	SGD output
2. Recognize the role of genetic factors in health and disease	General organization of the human genome and the structure and function of genes Human genome, gene, gene activity during development and in normal and pathological cell function Patterns of inheritance Principles and genetic basis of mitochondrial inheritance and disease Nature of mutations and how they contribute to human genetic variation and disease Concepts and clinical relevance of genetic imprinting and uniparental disomy Factors that affect the development of the phenotype in single gene disorders including variable	Lecture-discussion SGD PBL	Written exam SGD output

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	expressivity and incomplete penetrance Genes and Diseases Clinical manifestations of common Mendelian disorders Basic principles of inborn errors of metabolism Principles of multifactorial inheritance How genes interact with other genes and how various environmental factors contribute to disease Genetic polymorphisms, gene mapping, linkage analysis and association studies and their use in medicine Chromosomes and chromosomal abnormalities Organization of genes into chromosomes, chromosomal replication in mitosis and meiosis, transmission of chromosomes from parent to child Clinical features of common numerical, structural and mosaic chromosomal abnormalities Population genetics How principles of population genetics account for varying frequencies of particular mutations in population, effects		

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
	of consanguinity and continuing occurrence of new mutations Population screening for genetic disease: Newborn screening Carrier screening Presymptomatic screening		
3. Elicit a comprehensive history, family medical history,	Features in a patient's medical history that suggest the presence of a genetic disease Family history with pedigree using appropriate and acceptable symbols Patterns of inheritance and other signs suggestive of a genetic disease in a family history	Lecture SGD PBL Preceptorials Bedside teaching Actual patient encounters	Written exam SGD output Mini-CEX OSCE CEC
4. Perform a thorough physical examination	Features in the physical examination or laboratory investigations that suggest the presence of a genetic disease	Lecture SGD PBL Preceptorials Bedside teaching Actual patient encounters	Written exam SGD output Mini-CEX OSCE CEC
5. Identify patients with strong inherited predispositions to common disease and facilitate appropriate assessment of other at-risk family members	Mendelian and Non-Mendelian disorders, chromosomal abnormalities and inborn errors of metabolism	Lecture SGD PBL Preceptorials Bedside teaching Actual patient encounters	Written exam SGD output Mini-CEX OSCE CEC
6. Select appropriate diagnostic tests	Diagnostic tests for various genetic conditions	SGD PBL Bedside teaching	Written exam SGD output Mini-CEX OSCE

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
			CEC
7. Discuss ways to prevent genetic disorders	Prevention of genetic disorders: folic acid, genetic counseling, birth defects surveillance initiatives	SGD PBL Role play Bedside teaching	Written exam SGD output Clinical performance Mini-CEX OSCE CEC
8. Outline appropriate management of genetic conditions	Principles of management of genetic conditions	Lecture SGD PBL Preceptorials Bedside teaching Actual patient encounters	Written exam SGD output Clinical performance Mini-CEX OSCE CEC

INTEGRATED MANAGEMENT OF CHILDHOOD INFECTIONS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Discuss the IMCI approach in the management of common pediatric diseases in the Philippines.	Epidemiology of the top 10 morbidity and mortality among the under-5 children Objectives of IMCI Steps (Assess, Classify, and Treat) in the IMCI approach to management of childhood diseases	Reading reference Case-based SGD	Written exam
2. Assess and classify a sick child (2 months to 5 years) according to the IMCI approach	General danger signs Four major symptoms • Cough and difficulty of breathing • Diarrhea and dehydration • Fever • Ear problem Malnutrition and anemia Other problems Need for immunization, vitamin A supplementation and deworming	ICATT (IMCI Computerized Adaptive Training Tool) material Community exposure	Direct observation OSCE Recording of patient encounters using a pediatric card to monitor number and classification of patients seen
3. Assess and classify a sick young infant (0 to 2 months) according to the IMCI approach	Major concerns • Signs of serious bacterial infection • Jaundice • Diarrhea and dehydration Feeding and malnutrition Other problems Need for immunization	ICATT material Community exposure	Direct observation OSCE Recording of patient encounters using a pediatric card to monitor number and classification of patients seen

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
4. Treat the sick child and young infant according to the IMCI approach	IMCI treatment guidelines on drugs, fluids and feeding Guidelines on referral	Actual patient care/case studies Demonstration and return-demonstration on immunization techniques	Direct observation OSCE
5. Demonstrate counseling and communication skills to mothers and caregivers	Importance of drug completion Administration of drugs (how and when to give) and immunization Advice on feeding and fluids Advice on follow-up Counseling and communication skills	Actual patient care Role play	Direct observation OSCE

PHARMACOLOGY AND THERAPEUTICS

OBJECTIVES	CONTENT	**SUGGESTED TEACHING-LEARNING ACTIVITIES**	**SUGGESTED EVALUATION METHODS**
1. Discuss the unique anatomic and physiologic features that distinguish children from adults	Comparative anatomy and physiology of the following systems: Skin Gastrointestinal Central nervous system Cardiovascular system Respiratory Renal Endocrine	Lecturette SGD Plenary report, open forum	Written exam Oral presentation Recitation
2. Explain how these anatomic and physiologic features influence drug handling and response in children	Absorption Distribution Metabolism Excretion	Lecturette SGD Plenary report, open forum	Written exam Oral presentation Recitation
3. Explain how some pathologic states that affect drug handling require dose adjustment	Protein-calorie malnutrition Obesity Edema Dehydration Acidosis Renal and hepatic insufficiency Hyperbilirubinemia Principles of pharmacokinetics	Lecturette SGD and case exercises Plenary report, open forum	Written exam Oral presentation Recitation

4. Describe the different levels of drugs interaction and cite example	Levels of drug interaction: In-vitro drug incompatibility Absorption Distribution Metabolism Excretion	Lecturette SGD and case exercises Plenary report, open forum	Written exam Oral presentation Recitation
5. Explain commonly encountered adverse drug reactions	Adverse drug reactions (ADRs): Definition Types of ADRs Common ADRs in children	Lecturette SGD and case exercises Plenary reports, open forum	Written exam Multiple choice questions Oral presentation Recitation
6. Explain the adverse effects of drugs on the fetus and lactating infant when given to mothers	Adverse drug reactions in the fetus and lactating infant	Lecturette SGD and case exercises Plenary reports, open forum	Written exam Multiple choice questions Oral presentation Recitation

PREVENTIVE PEDIATRICS

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
1. Provide anticipatory guidance to patients and parents on health maintenance practices in an ambulatory care setting a. Discuss anticipatory guidance packages according to age groups b. Discuss screening tests routinely used in health care maintenance visits	Newborn, infant, childhood, and adolescence anticipatory guidance Newborn screening Serologic screening tests Vision and hearing Blood pressure Dental hygiene PPD screening test	Role playing Reporting	Class participation
2. Recommend and administer indicated childhood vaccinations at various age groups and situations a. Discuss principles of immunization and vaccination based on immunologic, epidemiologic, and biochemical rationale b. Discuss the Expanded Program of Immunization (EPI) of the Philippines c. Discuss other vaccines available but not	Principles of immunization and vaccination coverage Indication / contraindication Adverse events Vaccination procedure	Lecture Case presentation Simulation	Written exam Observation Practical exam

OBJECTIVES	CONTENT	SUGGESTED TEACHING-LEARNING ACTIVITIES	SUGGESTED EVALUATION METHODS
included in EPI			
3. Monitor growth and development of patients	Anthropometric monitoring (weight, length / height, head circumference) Behavior and other developmental considerations, eg, tantrums, toilet training, school readiness, play / toy /other socialization activities	Simulation Role play	Practical exam Class participation
4. Explain the nutritional requirements according to age group and aspects of nutrition	Food groups, breastfeeding and artificial feeding, weaning	Buzz group	Class participation
5. Obtain thorough, adequate and dynamic data	Growth and development Immunization history Nutrition history Family history Personal and behavior profile	Simulation	Observation Oral exam Rating scale

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Formal Turnover and Launch
1. eUPEC Manual 2013
2. Developmental Pediatrics Videomodule

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