



**School of Arts & Science  
BIOLOGY DEPARTMENT**  
**BIOL 253-all sections  
Pathophysiology for Nursing 2  
Winter 2007**

## COURSE OUTLINE

The Approved Course Description is available on the web @ \_\_\_\_\_

Ω Please note: this outline will be electronically stored for five (5) years only.  
It is strongly recommended students keep this outline for your records.

### 1. Instructor Information

Dr. Ahmed Vawda (~~Biology~~)    \_\_\_F342D    370-3479    [vawda@camosun.bc.ca](mailto:vawda@camosun.bc.ca)

Patty Foster (~~Nursing~~)    \_\_\_\_\_    F256A    370-3268    [fosterp@camosun.bc.ca](mailto:fosterp@camosun.bc.ca)

### 2. Intended Learning Outcomes

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

Upon completion of this course the student will be able to:

1. With reference to respiratory, genitourinary, gastrointestinal, musculoskeletal and integumentary disorders, explain how and why normal physiology is altered in the pathogenesis of specific diseases.
2. Correlate disease with treatment and nursing management in one's patients.
3. Explain in lay terms the major features of a patient's disease to the patient.

### 3. Required Materials

Black, J.M. & Hawks, J.H. (2005). Medical-Surgical Nursing: Clinical Management for Positive Outcomes (7<sup>th</sup> ed., 2 volume set). Elsevier Saunders, St Louis.

Lilley, L., Harrington, S., Snyder, J. and Swart, C. (2007). Pharmacology and the Nursing Process in Canada. (1<sup>st</sup> ed). Mosby.

Cauthorne-Burnette, T and Estes, M.Z. (2002). Clinical companion to accompany health assessment and physical examination. (2nd ed). New York: Delmar Publishers.

Pillitteri, A. (2007). Maternal and Child Health Nursing. Care of the Childbearing and Childrearing Family (5<sup>th</sup> ed). Lippincott, Philadelphia.

Van Leeuwen, A.M., Kranpitz, T.R. and Smith. (2006). Davis's Comprehensive Handbook of Laboratory and Diagnostic Tests with Nursing Implications. (2<sup>nd</sup> ed). F.A. Davis Company. Philadelphia.

**OPTIONAL TEXTBOOK**

Porth, C.M. (2005). Pathophysiology. Concepts of Altered Health States (7<sup>th</sup> ed). Lippincott, Philadelphia.

**OTHER RESOURCES**

Course website: <http://vawda.disted.camosun.bc.ca>

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**4. Course Content and Schedule**

(Can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

Week	Date	Lecture Topic
1	January 8 – 12	Neurological Disorders
2	January 15– 19	Neurological Disorders
3	January 22 – 26	Neurological Disorders
4	January 29 – February 2	Neurological Disorders Gastrointestinal disorders
5	February 5 – 9 <b>February 8 and 9</b>	Gastrointestinal disorders Reading Break
6	February 12 - 16	Gastrointestinal disorders
7	February 19 – 23	Gastrointestinal disorders
8	February 26 – March 3 <b>February 26<del>8</del> (1608h030 – 170h200)</b>	Musculoskeletal disorders <b>Midterm Exam</b>
9	March 5 – 9	Musculoskeletal disorders
10	March 12 – 16	Integumentary disorders
11	March 19 – 23	Urinary / Genital disorders
12	March 26 - 30	<b>Urinary / Genital disorders</b>
13	April 2 – 6	Urinary / Genital disorders

	April 6	Good Friday
14	April 9	Easter Monday
	April 10 – 13	Urinary / Genital disorders
15 / 16	April 16 – 24	Final Examination

## COURSE OUTLINE

### NEUROLOGICAL DISORDERS

#### Degenerative Disorders

- Alzheimer's disease
- Multiple sclerosis
- Parkinson's disease (**self study**, Black, page 2170)
- Amyotrophic lateral sclerosis (ALS)
- Myasthenia gravis (**self study**, Black, page 2182)

#### Neoplasia

- Brain tumors
- Tumors of supporting structures

#### Infections

- Brain abscess
- Encephalitis, meningitis (bacterial, viral, parasitic, fungal)

#### Seizure disorders

- Seizure
- Epilepsy

#### Cerebrovascular disease

- CVA (stroke)
  - Ischemic
  - Hemorrhagic
- Transient ischemic attack
- Intracranial hemorrhage - subdural, epidural, intracerebral

#### Neurologic trauma

- Increased ICP
- Traumatic Brain injury
- Spinal **cord** injury (**nursing applications**)

#### Shock

#### Inflammatory / Paralytic Disorders

##### Guillan Barre syndrome

#### Congenital Malformations (**self study**)

- Myelomeningocele (Pillitteri)
- Hydrocephalus (Pillitteri)

#### Genetic disorders (**self study**)

- Down syndrome (Pillitteri)

### GASTROINTESTINAL DISORDERS

#### Inflammatory disorders

- Appendicitis
- Peritonitis
- Inflammatory bowel disease**
- Irritable bowel syndrome**
- Diverticular disease

#### Herniations

- Hiatus hernia
- Inguinal hernia

#### Peptic ulcer

### **Congenital disorders**

Cleft lip and cleft palate  
Pyloric stenosis  
Gastro-esophageal reflux  
Tracheo-esophageal fistula  
Hirschprung's disease  
Intussusception

### **Cancers**

Esophageal (**self-study**, Black page 736)  
Stomach (**self-study**, Black page 760)  
Colorectal (**self-study**, Black page 830)  
Liver  
Pancreas

### **Hepatitis**

Cirrhosis

**Portal hypertension, Ascites**

Cholelithiasis

Pancreatitis

### *MUSCULOSKELETAL DISORDERS*

Fractures

Osteoporosis

Gout

### **Osteoarthritis**

Rheumatoid arthritis

Systemic lupus erythematosus (**self-study**, Black page 2352)

### **Muscular dystrophy**

Repetitive motion injuries

Bone cancer

### *INTEGUMENTARY DISORDERS*

Eczema and Dermatitis (**self-study**, Black page 1396)

Cellulitis

Psoriasis

### **Skin cancer**

### **URINARY AND GENITAL DISORDERS**

#### *Male*

Hydrocele, spermatocele

Benign prostatic hyperplasia (BPH)

Prostate cancer

#### **Female**

##### **Menstrual disorders**

Pelvic inflammatory disease (PID)

## Cancers

Breast  
Ovary  
Uterus  
Cervix

## Renal

Renal failure  
Pyelonephritis  
Glomerulonephritis  
Urinary tract infection (UTI)  
Renal calculi  
Urinary incontinence

## Cancers (self-study)

Renal (Black, page 922)  
Bladder (Black, page 866)

## Hypospadias

## Sexually transmitted diseases (STDs)

Genital herpes  
Genital warts  
Syphilis  
Chlamydia  
Gonorrhea  
AIDS

## 5. Basis of Student Assessment (Weighting)

(Should be linked directly to learning outcomes.)

(a)	Assignments	20%
(b)	Quizzes	
(c)	Exams	Midterm exam 35%, Final Exam 45%
(d)	Other (eg, Attendance, Project, Group Work)	

## 6. Grading System

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

### Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
95-100	A+		9
90-94	A		8
85-89	A-		7
80-84	B+		6
75-79	B		5
70-74	B-		4
65-69	C+		3
60-64	C		2

50-59	D		1
0-49	F	Minimum level has not been achieved.	0

### Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at [camosun.ca](http://camosun.ca) or information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at [camosun.ca](http://camosun.ca) for information on conversion to final grades, and for additional information on student record and transcript notations.

## 7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

### LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services or the College web site at [camosun.ca](http://camosun.ca).

### STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services and on the College web site in the Policy Section.

Biology 253 is the second half of a two-semester course for students in the second year of the Collaborative Curriculum for the Bachelor of Science in Nursing Program. The course focuses on the basic concepts of pathology [physiology](#) that are used to define dysfunction of the major organ systems.

The course integrates both pathophysiology and nursing applications. It is taught jointly by Faculty from Biology and Nursing. The intent is to enable students to apply and integrate the theory of pathophysiology to nursing practice. Physical assessment skills, use of diagnostic tests, pharmacology and treatment regimes will be included with each unit of study.

For success in this course, it is essential to have a good understanding of physiology and the associated anatomy of the organ systems being taught as this forms the basis for studying pathophysiology. There will be no time to review or re-teach this in class. If necessary, you must review this information on your own.

### NURSING APPLICATIONS

- Preparation for class: “**Focus Points**” on class material (in outline format) will be available weekly on the course website. Topics are listed on the [Semester Overview](#) that will be handed out in week 1. It is important to prepare for each class by reviewing normal Anatomy and Physiology from Year 1 and appropriate information about the topic in your Medical-Surgical, Pharmacology, Physical Assessment and Laboratory and Diagnostic textbooks before class.
- After class, spend time reviewing your preparation (preview) notes, additional notes made in class, and the professional journal articles related to the topic.

#### **2. Client Profile Assignment:**

- This assignment is worth 20% of the total course mark.
- **Due Date: February 19, 2007**  
Due to the large number of students in the course and the excessive volume of marking, extensions will not be granted and re-reads will not be done. Ask your questions before you submit your paper. All papers will be returned by April 6, 2007.

The Client Profile provides a learning opportunity to relate theory from all of your courses to health challenges that you are observing in the client population in your Nursing Practice area. Client profiles are based on a client for whom you have provided care during your nursing practice. I will be in contact with your Nursing Practice teachers to verify the suitability of clients chosen for this assignment. **Students not in Nursing Practice must consult with the Instructor regarding the Client Profile. Current CRNBC student membership is required. You must have a VIHA Confidentiality form on file.**

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## Client Profile Format

**Note:** It is not permitted to make photocopies of information from the client's Health Record (the chart).

**APA Guidelines** must be utilized.

- Information re: APA Guidelines is available via the Internet and in the college library and Learning Center. I recommend that you purchase an APA Publication Manual. It will be a valuable resource for the remainder of your nursing education.
- The APA Guidelines include spelling, punctuation, grammar, sentence structure, and referencing requirements.
- *Use only Approved Abbreviations from the VIHA Recording Manual.*
- *Charts and/or tables may be located in the body of the text or can be added as appendices as per APA Guidelines. Review use of appendices.*
- Must be no longer than 10 pages and not less than 8 pages (this includes the Title page and the References page). **Extra pages will not be read. This will impact your overall mark because information included on those pages will not be included in the final marking.**
- **References must** include three professional journal articles (two of these must be from Nursing Journals) in addition to your textbook references.

**Remove all information that would jeopardize client confidentiality.** (Use a pseudonym for identification of your client and do not include specific names of towns, cities, islands, or care facilities or actual names of caregivers e.g. physicians.)

### Introduction:

- Pseudonym, age, gender, allergies, advanced directives.
- Admission diagnosis and symptoms (presentation).
- Client understanding of the reason for admission.
- Brief health history that relates to the present admission.
- Social history as it relates to the present admission.
- Members of the health care team involved in the care of the patient (by occupation, not name). What care did these professionals provide for this client?

### Body:

- Description of the client's health challenge(s) utilizing clinical terminology. Focus on one or two of the client's most significant challenges. This will usually include the reason that the client has been admitted to hospital. Other challenges must be listed and a statement made indicating how these relate to the health challenge(s) being discussed.

- **“Patho Links”** – Explore the following relationships :
  - Presenting diagnoses (e.g., diabetes and below knee amputation)
  - Diagnostic procedures (on the unit and off), laboratory tests, treatments, procedures, OR’s, etc. and what the diagnostic and laboratory tests tell us about this client’s health status
  - Impact of Medications and treatments on this client’s health status. List the medications and describe their classification and modes of action as they relate to this client. Why is this client receiving this medication? Include nursing implications for administration of these medications.
  - Describe rationale for these treatment and medication choices from the pathophysiological perspective. Are these interventions effective or not?
  - What evidence is there of this?

**Nursing Implications:**

- What nursing **assessments** were performed for this client? What did you observe? Based on your assessment findings, what **problem, need, strength** emerged? What did you learn when interviewing this person?
- What client -centered **planning** was indicated for optimal care of this client? Why? Identify potential risks for this client.
- What **interventions** were done in response to the assessment findings and problems, needs, strengths?
- Were the interventions effective (**Evaluation**)? How did you determine this? Was another plan required?
- Relate this plan to the pathology evident in this client as evidenced by signs and symptoms, laboratory results and results of diagnostic procedures.

**Assessment-----Problem/Need/Strength-----Planning-----Intervention-----  
Evaluation**

**Conclusion:**

Considering the above findings, was the best medical and nursing care provided for your client? What do you think the outcome will be for this client? What role do you see yourself having as a client advocate for “best practice” care for this client?

**Notes:**

Updated examples of Client Profiles are available in the Learning Center. Ask at the desk for directions to these examples.

Do not hesitate to contact your Instructor if you have any questions about the assignment or course content.

**Marking Criteria:**

Marking criteria for the client profile are available on the Biology 253 website. A ‘grade’ designation for “What Constitutes an ‘A, B, C, D’ Paper” will be available on the Biology 253 website.