

**COURSE POLICY FOR BIOLOGY 285: HUMAN PHYSIOLOGY  
FALL 2012**

Course Description: 4 cr. Normal functions of organ systems in humans; fulfills the physiology requirements for biology, human development, nutritional sciences, physical education majors and is recommended for students with pre- professional interests in medical or allied health fields. Three hrs lec, three hrs lab per wk. **Prerequisites: Biology 160 (zoology) or Biology 101 (general biology) and high-school chemistry or Chemistry 101 or equivalent.**

**Lectures:** Dr. Sol Sepsenwol  
Room 439 TNR Building  
Ext. 4256

**Office hours:** By appointment: there are sign-up sheets posted next to my office door for all 15 weeks of the semester.

**Laboratories:** Dr. Sol Sepsenwol and Ms. Pat Zellmer, in TNR 253. (See lab schedule, p. 7.)  
Ms. Zellmer's Office: Room 235 TNR Building; ext. 3407

**★You will need to buy a set of LECTURE NOTES (\$11) and a LAB MANUAL (\$11) from the Biology Sales Office (TNR 167) before your first lab this week! ★**

**Assigned Text:** "Human Physiology, From Cells to Systems," 7th ed., by Lauralee Sherwood; West Publishing Company, publisher, 2010. (Available at Text Rental.) Think about buying the old edition for your own reference.

**Recommended Supplemental Text:** "Physiology Coloring Book," 2nd ed., 1999, by Wynn Kapit, Robert Macey and Esmail Meisami; Harper & Row publishers. (Contains excellent drawings and explanations not in textbook.) Available for purchase from the bookstore or Amazon.com or Borders.com.

**Examinations:** All 1-hour lecture examinations will be given on **EVENINGS, 7:15-9:15 PM, in Collins C.C. 101.** SEE FOLLOWING LECTURE SCHEDULE OR UWSP TIMETABLE FOR DATES. The material to be covered on each exam is shown on the lecture schedule. Alternate exam times will be available to those with **certifiable** job or class conflicts. Our exams take precedence over evening exams that are not listed in the timetable. Make-up exams will only be given if pre-arranged or in case of a *documented* emergency. There will be an *EXAM REVIEW* in **Collins C.C. 101, 7:15-8:15 PM**, before each exam. SEE LECTURE SCHEDULE OR TIMETABLE FOR DATES.

**Attendance Policy:** Attendance at lectures and laboratories is required.

**Last day to drop the course: Friday, November 9.** (A "W" will appear on your transcript.)

**Grading Policy:** The examinations and labs will be weighted as follows:

<b>Exams I-IV</b>	<b>80%</b>
<b>Lab grade (total) ★★</b>	<b>20%</b>

★★ Lab grade consists of quiz grades, lab reports, lab paper, extra-credit lectures, and attendance. For details, see LAB POLICIES, p.6.

Any form of *cheating* on quizzes or exams will earn a grade of **F**. Student grievances are handled per the University of Wisconsin's administrative code, "**Student Academic Standards and Disciplinary Procedures**," found at <http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/SRR-2010/rightsChap14.pdf>.

**Grade Scale:** Your grade will be based on a straight scale as shown below. There will be numerous *extra-credit* opportunities on exams and for lab. Grading decisions on borderline percentages will be made based on lab performance and attendance. There will be no negotiation of grades between instructor and students.

GRADE	MINIMUM PERCENT FOR GRADE
A+	97.0%
A	90.0%
A-	86.7%
B+	83.3%
B	80.0%
B-	76.7%
C+	73.3%
C	70.0%
C-	66.7%
D+	63.3%
D	60.0%
F	0.0%

The **A+** designation is called "honorary honors," which does not appear on your transcript, but which will be noted in letters of recommendation.

**Lecture recordings:** I try to record all lectures and put the audio files on D2L. I do not object if you want to record your own lectures.

**Tutoring:** We will have 3 **group tutoring sessions per week** for the course, available to anyone in this class, starting the third week of class. One-on-one tutoring is also available. If you do not qualify for a waiver, group tutoring costs \$15 for the semester for ALL courses taken during the semester. **THIS IS A BARGAIN!**

**Suggestion:** Make a **LIST OF TERMS** from notes for each lecture and text assignment as a guide for day-to-day study. Take notes in lecture: research shows that writing notes by hand increases retention by 50%!!. Use the *detailed outlines at the beginning of each handout* packet when studying for exams. Since Physiology does **not** lend itself to memorization very well, study the material as soon after *each* lecture as possible. Participation in a **study group** of three or four, meeting once a week, is **the most effective way to study physiology**. Turn the lecture topics into questions; it's a great way to see how well you know the material. You'll also be meeting some lifelong friends!

**BIOLOGY 285: HUMAN PHYSIOLOGY  
LECTURE SCHEDULE, FALL 2012**

**Dr. S. Sepsenwol**

**Office: TNR 439, ext. 4256; appointments by sign-up sheet on clipboard by office door)**

**Lectures: 9:00-9:50 am, Tues, Thurs & Fri (Collins Classroom Center 101)**

**SUMMARY OF EVENING EXAMS AND REVIEWS:**

**EXAM 1: Thursday, September 27, 7:15-9:15 PM, Collins 101 (covers material through lecture #11); REVIEW I, Tues, Sep. 25, 7:15-8:15 PM , Collins 101)**

**EXAM 2: Thursday, October 25, 7:15-9:15 PM Collins 101 (covers material through lecture #22); REVIEW II, Tues., Oct. 23, 7:15-8:15 PM , Collins 101)**

**EXAM 3: Thursday, November 15, 7:15-9:15 PM, Collins 101 (covers material through lecture #33); REVIEW III, Tues., Nov. 13, 7:15-8:15 PM , Collins 101)**

**EXAM 4: Thursday December 20, 2:45 pm am-4:45 pm, Collins 101 (covers material through lecture #43), REVIEW IV, Thurs., Dec. 13, 7:15-8:15 PM , Collins 101)**

Lecture No.	Date	Topic	Recommended Reading: <i>Human Physiology</i> , 7th ed., 2010 by L. Sherwood
		★★ <i>Recommended: review of basic chemistry and physics</i>	<i>Appendix B; Bio 285 Lab Manual, Appx A &amp; B</i>
1.	<b>Sept. 4</b>	Introduction to physiology; organ systems	
2.	<b>6</b>	Cells as physiological systems; the cell membrane	Ch. 2 (22-28); Ch. 3 (53-60)
3.	<b>7</b>	Membrane permeability; passive and active transport; osmosis	Ch. 3 (60-74)
4.	<b>11</b>	Neurophysiology I: origin of nerve-membrane electrical potentials from dissolved ions	Ch. 3 (75-82)
5.	<b>13</b>	Neurophysiology II: exciteable membranes, depolarization hyperpolarization, repolarization and action potentials in nerve and muscle cells.	Ch. 4 (87-104)
6.	<b>14</b>	Neurophysiology III: synapses; the neuro-muscular junction, (motor end-plate);	Ch. 4 (104-108); Ch. 7 (246-253);
7.	<b>18</b>	Skeletal muscle I: mechanics and molecules of contraction	Ch. 8 (256-270)
8.	<b>20</b>	Skeletal muscle II: calcium-triggering system: the sarcoplasmic reticulum and t-tubule system	Ch. 8 (256-270)
9.	<b>21</b>	Skeletal muscle types, cardiac and smooth muscle types	Ch. 8 (276-281; 289-297)
10.	<b>25</b>	Motor nerves and muscle groups: motor units and origin of reflexes; basic anatomy of the central nervous system	Ch. 8 (269-270); Ch. 5 (figs. 5-9a; 5-10, 5-15, 5-19, 5-20, 5-24-26)
<b>RVW #1</b>		<b>REVIEW #1, Tues, Sep. 25, 7:15-8:15 PM, Collins 101</b>	
11	<b>27</b>	autonomic nervous system	Ch. 7 (237-247)
<b>EXAM #1</b>		<b>EXAM #1, Thursday, September 27, 7:15-9:15 PM, Collins 101</b>	

===== END OF MATERIAL COVERED ON EXAM #1 =====

12.	29	Somatic reflexes or Hearing I	Handout or Lab manual
13.	Oct. 2	Vestibular reflexes or Hearing II	Handout or Lab manual
14.	4	The erythron: the red blood cell forming system; anemia	Ch. 11 (390-399) + handouts
15.	5	Hemostasis: blood coagulation and platelet function	Ch. 11 (405-412)
16.	9	White blood cells: the granulocytes and lymphocytes; leukemias & treatments	Ch. 11 (400-405)
17.	11	Immunology: macrophage & lymphocyte function; humoral and cellular immunity	Ch. 12
18.	12	Properties of arteries and veins, vascular disease; special circulations: lung, heart, brain, muscle, skin	Ch. 10 (fig 1, tbl 10-1) Ch. 9 (333-338); lecture notes
19.	16	Cardiac Physiology I: heart as a muscular pump	Ch. 9 (303-311)
20.	18	Cardiac Physiology II: the EKG; blood pressure patterns	Ch. 9 (311-321)
21.	19	Cardiac Physiology III: the cardiac cycle	Ch. 9 (321-324; Fig 9-16, p.322)
22.	23	Blood flow and blood pressure relationships	Ch. 9 (Figs. 9-1 & 2). Ch. 10 (345-381; fig 10-14)
<b>RVW #2</b>		<b>REVIEW #2, Tues., Oct. 23, 7:15-8:15 PM, Collins 101</b>	<b>LECTURES 12-22</b>
===== END OF MATERIAL COVERED ON EXAM #2 =====			
23	25	Control of cardiac output and blood pressure; congestive heart failure (CHF) and <i>cardiovascular shock</i>	Ch. 10 (345-381; 331-332; 381-387)
24.	26	Pulmonary Physiology I: Mechanics of respiration	Ch. 13 (460-485)
25.	30	Pulmonary Physiology II: Chemistry of respiration, Hb and carbonic anhydrase	Ch. 13 (486-498)
<b>EXAM #2</b>		<b>EXAM #2, Thursday, October 25, 7:15-9:15 PM, Collins 101</b>	<b>LECTURES 12-22</b>
26.	Nov. 1	Pulmonary Physiology III: nervous and chemical control of respiration; CO poisoning; respiratory disease (emphysema)	Ch. 13 (498-507; 489 for emphysema)
27	2	Renal Physiology I: regulation of body fluids; lymphatic system; gross and micro-anatomy of the kidney	Ch. 10 (368-371); Ch. 14 (510-519)
28	6	Renal Physiology II: filtration, GFR, reabsorption, counter-current multipliers	Ch. 14 (517 ff.)
29.	8	Renal Physiology III: acid-base balance	Ch. 15 (556-565)
30	9	Renal Physiology IV: role of the hormones aldosterone and ADH in the regulation of water excretion/blood volume.	Ch. 14 (526-529; 569; 544);
31	13	Gastrointestinal physiology I: anatomy & basic function.	Ch. 16 (tbl 16-1)
<b>RVW #3</b>		<b>REVIEW #3, Tues., Nov. 13, 7:15-8:15 PM, Collins 101</b>	<b>LECTURES 23-33</b>
32.	15	Gastrointestinal physiology II: digestion and assimilation of foodstuffs	Ch.19 (710-714) Fig 17-2;Ch.16 (Table 16-1)
<b>EXAM #3</b>		<b>EXAM #3, Thursday, November 15, 7:15-9:15 PM, Collins 101</b>	<b>LECTURES 23-33</b>
===== END OF MATERIAL COVERED ON EXAM #3 =====			

33.	<b>16</b>	Gastrointestinal physiology III: release of energy from absorbed foodstuffs; basic biochemistry; starvation and gluconeogenesis	"" "" "" "" "" ""
34	<b>20</b>	Regulation of blood glucose: insulin and diabetes-I & II	Ch. 19 (714-724)
35	<b>27</b>	Regulation of body temperature; role of the hypothalamus	Ch. 17 (650-658)
36	<b>29</b>	<u>Introduction to endocrinology control systems</u> : the pituitary gland -- the "master" endocrine gland.	Ch. 18 (670-676; fig 18-1; tbl 18-2 summary, p. 668)
37	<b>30</b>	The hypothalamus-pituitary team, using the control of the thyroid gland as a model system	Ch. 19 (691-698)
38.	<b>Dec. 4</b>	Adrenal gland I: anatomy, steroid hormones, epinephrine and pituitary control	Ch. 19 (698-705)
39.	<b>6</b>	Steroid hormones of the adrenal gland II: Adrenal diseases: [most in handouts] Cushing's syndrome (excess glucocorticoids); Addison's disease (low GC's) and the adrenogenital syndrome (excess adrenal androgens)	" " " " " " " "
40.	<b>7</b>	Sex determination and sex differentiation: sex is not all in the genes	Ch. 20 (741-749)
41	<b>11</b>	Female sex-steroid hormones: estrogen, progesterone and the menstrual cycle	Ch. 20 (764-776)
42	<b>13</b>	Endocrinology of pregnancy (hCG, and others); fetal physiology	Ch. 20 (778-789)
<b>RVW #4</b>		<b>REVIEW #4, Thurs., Dec. 13, 7:15-8:15 PM , Collins 101</b>	
43	<b>14</b>	Parturition and lactation (prostaglandins, hCS, oxytocin, prolactin and others)	Ch. 20 (789-797)
44.	<b>(optional)</b>	Male reproductive endocrinology	Ch. 20 cont.
45.	<b>(optional)</b>	special topics in reproduction	(lecture only)
<b>EXAM #4</b>		<b>EXAM #4 (Final) , Thursday December 20, 2:45 pm am-4:45 pm, CCC 101</b>	

===== END OF MATERIAL COVERED ON EXAM #4 =====

<b>HUMAN PHYSIOLOGY LABORATORY POLICIES</b>
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LAB DAY	SECTION	INSTRUCTOR
MAM (Mon 9am-12pm) ★★	Section #2	Dr. Sepsenwol
WAM (Weds 9am-12 pm)	Section #1	Dr. Sepsenwol
WPM1 (Weds 12n-3 pm)	Section #4	Ms. Zellmer
WPM2 (Weds 3pm-6 pm)	Section #6	Ms. Zellmer
RPM1 (Thurs 1pm-4 pm)	Section #5	Ms. Zellmer
RPM2 (Thurs 4pm-7 pm)	Section #7	Ms. Zellmer
FAM (Fri 10am-1 pm)	Section #3	Ms. Zellmer

★★ See next page for special Week 1 session for Section #2
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**Lab Quizzes and Weekly Reviews:** There will be a short lab quiz at the beginning of each lab period covering the results of the last week's lab and the procedures for the current lab. Unless there is an excused absence, missed lab quizzes cannot be made up. If you miss a lab you can schedule another lab during the same week with the instructor of that lab. There will be no lab questions on lecture exams.

**Extra-Credit Lab Paper** (for Dr. Sepsenwol's sections only): a paper, based on material from the course, will consist of an introduction to the physiology required to understand the topic and a discussion of the specialized topic itself. The topic must be approved by Dr. Sepsenwol. Directions are at the end of this handout. The paper deadlines are published in the lab schedule following.

**Extra-Credit Lectures:** at least two extra-credit lectures will be offered this semester, times to be announced. These will be invited speakers to UWSP whose topics might be of interest to Human Physiology students. Each will be worth 5 extra-credit lab points. You can get lab credit for two (+10 pts.). With extra-credit points, it is quite possible to earn more than 100% in lab (although only 100% will be credited toward your final grade in the course). DO NOT PASS UP EXTRA-CREDIT LAB OPPORTUNITIES! It can mean a big difference in your grade.

**Lab Grade:** the lab grade consists of *quiz grades, lab reports, lab paper (Sepsenwol sections), extra-credit lectures, and attendance. Lab counts 20% of the final grade.* Think of your lab grade as an extra lecture exam.

**BIOLOGY 285 HUMAN PHYSIOLOGY LAB SCHEDULE****FALL 2012**

**LAB MANUALS ARE AVAILABLE FOR \$11 FROM THE SALES OFFICE, TNR 167.  
YOU WILL NEED ONE TO BEGIN LAB THIS WEEK!**

Instructors: Dr. S. Sepsenwol, TNR 439, ext. 4256  
Ms. P. Zellmer, TNR 235, ext. 3407

<b>LAB BEGINNING:</b>	<b>EXPERIMENT DESCRIPTION:</b>	<b>LAB MANUAL PAGES:</b>
Sept. 5	ANATOMY OF THE PRESERVED RAT ★★★ <b>SECTION #2: SEE SPECIAL SESSION BELOW</b> ★★★	25-28
10	PENETRATION OF SUBSTANCES INTO CELLS: PERMEABILITY	29-42
17	THE SPECIAL SENSES: HEARING, TOUCH, TASTE & SMELL Introduction to the BIOPAC software [ <b>Lab Paper</b> , Sepsenwol sections only: <b>TOPICS</b> due this Friday, 5 pm]	59-72
24	PROPERTIES OF SKELETAL (STRIATED) MUSCLE	73-84
Oct. 1	SPINAL AND SUPRASPINAL REFLEXES	43-58
8	FORMED ELEMENTS OF THE BLOOD; RED BLOOD CELL MEASUREMENTS. [ <b>Lab Paper</b> , Sepsenwol sections only: <b>SUB-TOPIC LIST &amp; REFERENCES</b> due Friday, 5 pm]	85-96
8	IMMUNITY AND BLOOD TYPING	97-102
15	HEART ANATOMY AND THE ELECTROCARDIOGRAM	103-118
22	HEART (VALVE) SOUNDS AND BLOOD PRESSURE	119-134
29	CAPACITIES OF THE RESPIRATORY SYSTEM	135-142
Nov. 5	KIDNEY PHYSIOLOGY: WATER-, ELECTROLYTE- AND pH-BALANCE	143-154
12	★ SMALL-ANIMAL SURGERY PRACTICE AND PREPARATION { <b>Lab Paper</b> , Sepsenwol sections only: <b>COMPLETED LAB PAPER</b> due this Friday, 5 pm]	155-158
19	★★★★ <b>THANKSGIVING BREAK, NO LAB</b> ★★★★★	
26	HORMONE-DEPENDENT TISSUE GROWTH, PT. I: GONADECTOMIES OF MALE & FEMALE RATS	159-164
Dec. 3	THYROID HORMONES AND METABOLISM: SOLVING A HORMONE "UNKNOWN"	165-170
10	HORMONE-DEPENDENT TISSUE GROWTH, PT II: CASTRATION EVALUATION	171-178
Friday, Dec. 14 (tentative)	<b>OPTIONAL: TOUR OF ST. MICHAEL'S HOSPITAL</b> (see sample questions in lab manual). This gives you a chance to hear physiology spoken. Usually includes the following departments: Intensive Care, Hemodialysis, Clinical Chemistry, Pathology, and Obstetrics & Birthing Center.	179-180

**Lab Sections:**

<b>LAB DAY</b>	<b>SECTION</b>	<b>INSTRUCTOR</b>
<b>MAM (Mon 9 am-12 pm) ★ ★</b>	<b>Section #2</b>	<b>Dr. Sepsenwol</b>
<b>WAM (Weds 9 am-12 pm)</b>	<b>Section #1</b>	<b>Dr. Sepsenwol</b>
<b>WPM1 (Weds 12-3 pm)</b>	<b>Section #4</b>	<b>Ms. Zellmer,</b>
<b>WPM2 (Weds 3-6 pm)</b>	<b>Section #6</b>	<b>Ms. Zellmer</b>
<b>RPM1 (Thurs 1-4 pm)</b>	<b>Section #5</b>	<b>Ms. Zellmer,</b>
<b>RPM2 (Thurs 4-7 pm)</b>	<b>Section #7</b>	<b>Ms. Zellmer</b>
<b>FAM (Fri 10-1 pm)</b>	<b>Section #3</b>	<b>Ms. Zellmer,</b>

★★ **First week only:**  
**Section #2 will meet**  
**Thursday, September 6,**  
**from 7-10 pm.**

Dr. S. Sepsenwol  
Biology 285: Human Physiology  
August 13, 2012

**HUMAN PHYSIOLOGY LAB PAPER**  
**( Dr. Sepsenwol's sections only)**

*Summary of deadlines for paper:*

*Main Topic approval: **Friday, Friday, September 21, 5 PM**, in TNR 439..*

*Specialized terms list and references submission: **Friday, Friday, October 12, 5 pm** in TNR 439.*

*Final deadline for turning in paper: **Friday, Friday, November 30, 5 pm** in TNR 439.*

1. The lab paper is *optional* for Dr. Sepsenwol's sections. It will add up to *10 extra-credit points* to your lab total.

**PURPOSE:** The purpose of this paper is to select a topic that is interesting to *you* and *relates to the Physiology lecture course and/or lab*. Topics can be on (a) *normal conditions* that require physiology to understand (for example, how the heart and respiratory systems respond during deep-water diving) or (b) on the *effects of drugs or natural substances* on physiology (for example, how different types of diuretics work and how they are used) or (3) on how the effects of *disease* can affect normal physiology (for example, how the normal functions of the motor-control centers of the brain are affected by Parkinson's Disease). We have had excellent papers on diseases suffered by family members, friends or the writer him/herself, sports-related injuries or illnesses, the physiology of specialized training regimens, specialized aspects of birth, nursing, heart function.

**AUDIENCE FOR PAPER:** You are writing this paper to an audience of *college students that have already had Biology 285*; in other words, who have had all the information that is presented in the course.

**MAIN TOPIC:** A **main topic** for your paper must be approved by Dr. Sepsenwol, **Friday, September 21**. The topic cannot be general ("vision," "diabetes," "training for sports"); it must be specific ("macular degeneration," "diabetic retinopathy," "creatine supplementation"). I'll be glad to help you narrow down your main topic and suggest some sources. Just see me in lab or sign up to see me at my office.

**TOPIC'S SPECIALIZED TERMS LIST AND REFERENCES:** A **specialized terms list and references** for the paper must be submitted to Dr. Sepsenwol by **Friday, October 12**; email is OK. A **specialized terms list** is a list of **specific** topics to be covered in your paper. Do some reading on your topic, so you know what should be in the paper; this is the foundation for the specialized terms list. If it's a disease, start with the **MERCK MANUAL** in the reference room at the Library. (See below.) A general list like, "discussion of symptoms," "what it is," etc. is not acceptable for a sub-topic list. It should be **detailed** (e.g., "types of insulins," "diabetic retinopathy," "diagnostic signs of diabetic kidney failure: high blood pressure..."), but does not have to be organized in any way. This is to show that you have done some preliminary research on the topic and know what you want to write about. **You will also include a list of at least 4 references that you have looked at** (one may be your textbook). See the section below on "Sources of information." If the topic is a disease, you can use an **interview with a patient** as a reference.

**THE FINAL PAPER:** The paper is due **Friday, November 30** under my office door, TNR 439. **Paper Length:** 8 pages, double-spaced, with not more than 1" margins, Title page, references and illustrations do not count in total. How to write the paper is on the next page.



## FORMAT OF PAPER

- I. **INTRODUCTION:** Why are you writing about the topic? Is it related to you or a friend or relative? Something you read? Something related to your professional interests? Use a story or experience to bring the reader into your topic.
- II. **BASIC PHYSIOLOGY REQUIRED TO UNDERSTAND YOUR SPECIAL TOPIC:** Provide the basic physiology and anatomy background from lecture and/or your human physiology text. Include relevant lab experiments.
- III. **DISCUSSION OF SPECIAL TOPIC:** This is the main part of the paper and applies principles of physiology covered in Biology 285 (discussed above) to understanding the special topic. This is meant for a college-level audience, people who have had Biology 285.
- IV. **RELEVANCE TO PERSONAL OR PROFESSIONAL INTERESTS.**
- V. **REFERENCES USED. YOU MUST USE AT LEAST TWO TEXT OR JOURNAL REFERENCES** (in other words, references that are **NOT** from the Internet). Include books, journals (look for *review articles*) and interviews. **Interviews:** you might want to *interview* a person who suffers from a disease to get a specific view of what it's like, how it started, how it was diagnosed, what treatment is like, etc. You can also interview other experts, like a doctor or nurse or trainer or even professor that deals with your special topic on a daily basis.) Your textbook is an appropriate reference. Also, the **UWSP library now has an up-to-date collection of medical references** (textbooks in physiology, pathology, immunology -- all the basic references found in a medical library). You will need to know what reference to look for; ask me if you have trouble finding one. **Do not use references older than 1990.**

### Sources of Information

- A. **Your textbook:** Sherwood's "Human Physiology, 7th ed." has a lot more information than we can cover in lecture and is a good source for a basic understanding of your topic. It also has excellent illustrations you may be able to use in your paper.
- B. **Library references:** There is a very good starting place for topics in human disease at the UWSP library: **The Merck Manual, 17th edition.** This lists, in condensed form, almost all diseases known to mankind. There is also a **collection of up-to-date advanced texts in physiology, pathology, biochemistry, cell biology and all areas of medicine (surgery, dermatology, etc.).**
- C. **Me.** Talk to me. My appointment sheet is posted next to my door, TNR 439. Weekly sheets are posted for the entire semester. I can lead you to useful references.
- D. **The Internet.** The best Internet starting place for information on *diseases or medical conditions* is "**Medline Plus**" from the National Library of Medicine, part of the National Institutes of Health, <http://www.nlm.nih.gov/medlineplus/healthtopics.html>.  
The diseases are listed alphabetically, and include patient information, drugs, on-going research and links to other sites.
- E. For a large listing of journal articles about a particular topic, you can try the **National Library of Medicine "Medline" database:** You can save references and abstracts directly to **MyFiles H:\ drive** on the network. Use **Medline** database from any campus computer: <http://www.ncbi.nlm.nih.gov/PubMed/>  
In the inquiry box that appears, use a string of key words to locate the best articles. The full title of each article appears, most recent, first. Don't look up individual research articles -- they are too specific and you will be wasting your time. Click on the **"REVIEW"** tab. These are all the reviews of the topic you are looking for, and summarize all the current literature on the subject. You can read the abstracts of the

interesting ones. At the end of each abstract, there is a **SAVE** button to save the abstract to your **MyFiles H:\ drive**, found in My Documents. ("**SAVE** the above report in \_\_\_\_\_format"). Choose **PC** for format and save to your H:\ drive, under My Documents. For a paper copy only, just hit printer icon on screen.

If the library doesn't have the journal, you will need to request the article from UWSP's **Interlibrary Loan** online <http://library.uwsp.edu/depts/ill/ill.htm>. It takes about a week to get the article.

References should be put into the following form for your paper:

**FOR JOURNAL ARTICLES:** Author(s) Name(s). Year. "[title of article or book]", Title of Journal, pages.

Example:

J.L. Marcus. 1992. "Porphyrias and vampirism," J. Gen. Psychiatry, 2188-2190.

**FOR BOOKS:** Author(s) Name(s). Year. "[title of chapter used]", in [title of book], [editors], Publisher, pages. Example:

P.N. Nobble and A.J. Flom. 1991. "Hemoglobin variants and disease," in Hematology, Canby and Canby, eds., McGraw-Hill, 191-201.

**FOR WEBSITES:** **Author** (if known), **sponsoring organization** (university, agency, etc.), "**title of web page**", web address (=URL), **last update** (usually at bottom of page). The easiest way to do this is to go to the site => click on the address box of the browser to highlight all of it => click on **EDIT => COPY**. Go to the reference page of your paper and click on **EDIT => PASTE**. For your own safety, save the web page to your **H:\ drive** as follows: **FILE => SAVE AS** . Then go to "**Save As type:** " box and look for "**Web Archive single file (\_\_\_\_.mht)**", then click "**Save**" button. This puts all the pictures and text on the web page into one file. Example:

Mayo Clinic, "Dengue Fever," <http://www.mayoclinic.com/health/dengue-fever/DS01028> , last updated: September 2009.