



## School of Medicine and Public Health

UNIVERSITY OF WISCONSIN-MADISON

### **Course Subject, Number and Title**

Course number: DERM 904

Title: Science of Cutaneous Disease

### **Credits**

2

### **Canvas Course URL**

### **Meeting Time and Location**

Monday – Friday 8am-5pm. See weekly schedule for locations.

The clinical component may be completed at any campus location under the direct supervision of an affiliated dermatologist. Small group sessions may be conducted by local instructors or through the use of distance education technology.

### **Instructional Mode**

*Blended online, self-study, and face-to-face format*

### **Specify how Credit Hours are met by the Course**

This course will be offered for 2 credits. The credit standard for this course is met by an expectation of a total of 90 hours of student engagement with the course learning activities (at least 45 hours per credit), which include reviewing asynchronous didactic content online, small group discussion, and evaluating and treating patients in the outpatient Dermatology clinic and/or hospital-based consults. Regular and substantive student-instructor interaction is a key component of this course.

### **Course Director**

Tom Keenan, MD/PhD

### **Primary Faculty:**

Lisa Arkin, MD

William Aughenbaugh, MD

Daniel Bennett, MD

Justin Endo, MD

Molly Hinshaw, MD

Rachel Kornik, MD

Rita Lloyd, MD

Margo Reeder, MD

Stefan Schieke, MD

Vijay Setiuri, PhD

Erik Stratman, MD

Andy Swanson, MD

Abigail Taub, MD  
Gloria Xu, MD  
Other faculty to be determined

### **Instructor/s Availability**

Students will have daily interaction with one or more instructors. Instructors are available via email any time during the course offering.

### **Course Director Email/Preferred Contact**

[tkeenan@dermatology.wisc.edu](mailto:tkeenan@dermatology.wisc.edu)

### **Course Description**

The practice of Dermatology encompasses diseases of the skin, mucosal surfaces, hair and nails. The specialty integrates cellular and molecular biology, immunology, microbiology, and physiology to support patient care decisions. This course will introduce students to basic science principles of normal and abnormal cutaneous functioning, building on the principles introduced in the Phase 1 Invaders and Defense course. These core concepts will be applied through interactions with patients in the clinical setting. By the end of this course, students will be equipped with foundational basic science knowledge to diagnose and treat dermatologic diseases.

### **Requisites**

**Med Sci-M 810, 811, 812, and 813**

### **Learning Activities/Course Hours**

#### **Course Hours:**

1. Didactics, small group discussions and presentation: 45 hours
2. Dermatology clinic: 45 hours

#### On-line didactics

- Interactive basic science lectures: 5 hours/week = 10 hours

#### Faculty-led conferences

- Dermatology Grand Rounds: 1.5 hours/week = 3 hours
  - Patients are presented (live and/or virtual), including review of histopathology. Basic science underpinnings of skin diseases are formally discussed
- Clinical pathologic correlation (CPC) conference: 2 hours/week = 4 hours
  - Focuses on pathophysiology of cutaneous diseases
- Journal Club: 2 hours
- Basic Science Conference: 2 hours

#### Basic science presentation (10 minutes per student)

- Preparation: 3 hours
- Student presentations: 1 hour

#### Independent reading

- Assigned readings: 10 hours/week = 20 hours

#### Clinical Experience

- Dermatology clinic: 20 hours/week
- Students will rotate in clinical venues, including subspecialty clinics, dermatopathology and dermatologic surgery to highlight the clinical application of dermatologic basic science content

### Sample Weekly Schedule

WEEK 1	Monday	Tuesday	Wednesday	Thursday	Friday
8-9a	Orientation	Grand Rounds	Independent Study	Dermatologic Surgery	Independent Study
9-10a	Basic Science Conference				
10-11a	Independent Study	CPC Conference			
11a-Noon					
Noon-1p					
1-5p	Dermatology Clinic	Dermatology Clinic	Inpatient Consults	Independent Study	Dermatology Clinic

WEEK 2	Monday	Tuesday	Wednesday	Thursday	Friday
8-9a	Independent Study	Grand Rounds	Independent Study	Independent Study	Independent Study
9-10a	Basic Science Conference				
10-11a	Independent Study	Journal Club			
11a-Noon				Presentations	
Noon-1p					
1-5p	Dermatology Clinic	Dermatology Clinic	Inpatient Consults	Dermatopathology	Dermatology Clinic
			CPC Conference		

### Course Learning Outcomes

1. Describe the process of normal keratinization and cellular factors that lead to disorders of keratinization
2. Explain the immunologic mechanisms underlying inflammatory dermatoses, including atopic dermatitis, allergic contact dermatitis, psoriasis, immunobullous diseases, urticaria and acne vulgaris
3. Describe the cellular mechanisms of cutaneous malignancies, including non melanoma skin cancer, melanoma and cutaneous lymphoma
4. Explain normal hair and nail physiology
5. Identify key histologic features of normal skin
6. Recognize histologic patterns of cutaneous disease and explain the cellular mechanisms underlying these changes
7. Explain the mechanism of action of various dermatology medications and vaccines in the treatment and prevention of cutaneous diseases
8. Critically appraise primary literature as it relates to the etiology and/or treatment of skin diseases

## GRADING

- The course directors will assume responsibility for grading each student’s performance on this rotation. Student will be graded on a Pass/Fail basis. At least 70% of learning activities must be completed in order to achieve a passing grade. The following assessments will be used to determine final grade:
  - Small group participation (40%). Students must achieve a minimum of ‘adequate contributor’.
    - **Outstanding contributor:** contributions reflect exceptional preparation. Ideas offered are always substantive, providing one of more major insights, as well as direction for the class. Challenges are well substantiated and persuasively presented. If this person were not a member of the class, the quality of discussion would be markedly diminished
    - **Good contributor:** Contributions in class reflect thorough preparation. Ideas offered are usually substantive; provide good insights and sometimes direction for the class. Challenges are well substantiated and often persuasive. If this person were not a member of the class, the quality of discussion would be diminished.
    - **Adequate contributor:** Contributions in class reflect satisfactory preparation. Ideas offered are sometimes substantive; provide generally useful insights but seldom offer a new direction for the discussion. Challenges are sometimes presented, fairly well substantiated, and are sometimes persuasive. If this person were not a member of the class, the quality of discussion would be diminished somewhat.
    - **Non-participant:** This person says little or nothing in class. Hence, there is not an adequate basis for evaluation. If this person were not a member of the class, the quality of discussion would not be changed.
    - **Unsatisfactory Contributor:** Contributions in class reflect inadequate preparation. Ideas offered are seldom substantive; provide few if any insights and never a constructive direction for the class. Integrative comments and effective challenges are absent. If this person were not a member of the class, valuable air-time would be saved.
  - Presentation on a basic science topic (20%). Students must earn a minimum of 14/20 points to achieve a passing grade.
    - The following grading rubric will be used:

	Beginning	Developing	Competent	Accomplished
Organization	Unfocused purpose, inadequate organization	Vague purpose, evident but inconsistent organization,	Expresses clear, coherent thesis, organized	Skillfully presented purpose, effective organization
Content/cognition	Clinical images, diagrams and slides fail to adequately explain basic science concepts; lacks understanding of material	Clinical images, diagrams and slides explain basic science concepts at an introductory level; has basic understanding of material	Clinical images, diagrams and slides accurately depict basic science concepts; well-articulated understanding of material; fields questions from the audience with assistance	Clinical images, diagrams and slides accurately depict basic science concepts; demonstrates ability to simplify complicated concepts; fields questions from the audience without assistance

Evidence	Information is incomplete; relevant and evidence-based resource/s not used	Information and analysis is developing; evidence-based, resources used	Information shows depth and breadth of topic; analysis is competent, evidence-based, relevant sources used	Information shows depth and breadth of topic; synthesis and analysis yield an integrated understanding of disease; relevant, evidenced-based resources used
Clinical application	Does not explain connection between basic science topic and clinical medicine	Addresses connection between basic science topic and clinical medicine, but fails to articulate the potential applications	Explains connection between basic science topic and clinical medicine, limiting discussion to current applications	Explains connection between basic science topic and clinical medicine, and proposes future applications
Presentation skills	Lacks confidence; looks only at notes; lacks interest in topic	Demonstrates some understanding of topic; little eye contact; shows some interest in topic	Demonstrates good understanding of material; maintains good eye contact; shows enthusiasm for topic	Demonstrates advanced understanding of material; maintains good eye contact and presents with confidence; creates enthusiasm about topic

- Learning modules (20%). Short quizzes at the end of each lecture will be used for assessing knowledge. An average of 70% will be designated as the benchmark for a passing score, with the option to remediate any session of the module for a failing score
- Clinical activities (20%)
  - The Phase 3 Basic Science Selective evaluation form will be used.

## REQUIRED TEXTBOOK, SOFTWARE & OTHER COURSE MATERIALS

- Bologna, J Schaffer, J and Lorenzo, C. (2017). Dermatology, 4e. Philadelphia, PA: Elsevier
- James, W Berger, T, Elston, D. (2006) Andrews' Diseases of the Skin, 12e. Philadelphia, PA:Elsevier
- Rapini, R. (2012) Practical Dermatopathology, 2e. Philadelphia, PA: Elsevier
- 'Research Techniques Made Simple' series. Journal of Investigative Dermatology

## RULES, RIGHTS & RESPONSIBILITIES

- See the Guide's [Rules, Rights and Responsibilities](#)

## ACADEMIC INTEGRITY

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison's community of scholars in which everyone's academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to [studentconduct.wiscweb.wisc.edu/academic-integrity/](http://studentconduct.wiscweb.wisc.edu/academic-integrity/).

## ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

**McBurney Disability Resource Center syllabus statement:** “The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.”

<http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php>

## DIVERSITY & INCLUSION

**Institutional statement on diversity:** “Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.” <https://diversity.wisc.edu/>