Our dermatology course will continue to emphasize blended learning by combining your study at home with graded quizzes and presentations in class in the expectation that more interactive learning will result in more extensive practice with and much greater retention of 1) core concepts and vocabulary, 2) problem-clarifying and problem-solving principles, and 3) efficient approaches to diagnosis and proper treatment.

There will be no traditional course pack for this course

This introduction is your detailed map to the course. You must read it carefully and successfully complete the quiz on the content to gain access to study materials.
1. Of course you are responsible for your own choices during the I-clicker quizzes at the beginning and ending of each class session. As you think about what the correct answer might be, you

   A. May call out your answer to help other struggling classmates
   B. May confer with students in other teams who are sitting nearby
   C. May use your computer to look up answers
   D. May quietly discuss options with your own teammates
   E. Must answer the questions individually without seeking any help from others

2. A team of students, properly prepared for class, is called up front to answer questions during one of the sessions in this course. They know they must use their own words. As they huddle together to pick which team member will answer which question, they may refer to

   A. Carefully prepared small note cards
   B. Lap top computer files
   C. Only the memories and problem-solving capacities already available in their very good minds
   D. Sheets of paper with notes on them
   E. Smart phones

3. To successfully complete 2017 OST 576, you must answer sets of questions by reviewing relevant online resources specially prepared by our faculty, required websites (aad.org and pediatrics.wisc.edu/education/derm/tutorials.html), and by visiting a few additional carefully selected websites (emedicine.medscape.com/dermatology and dermnet.org.nz/sitemap.html). Our primary goal in directing you to the additional websites is to provide

   A. A reliable source for alternative therapies
   B. Additional detailed text on pathophysiology which you must memorize
   C. An authoritative source for the details of evidence-based treatment
   D. Sources which are not copyright-protected
   E. Useful additional photographs of conditions covered in the course
4. A patient presents with a skin rash. While all levels of reasoning as defined by Bloom are used in the process, the reasoning level which BEST assures that the final diagnosis of the rash in this patient is accurate is

A. Analyzing
B. Applying
C. Comprehending
D. Judging
E. Synthesizing

5. Having completed this course successfully, you see a small raised brown mass on the upper arm of your grandfather. He says it has been there unchanged for years. The BEST way for you to decide between offering reassurance and getting him to a dermatologist is by

A. Considering all dark lesions malignant until proven otherwise
B. Generating a small list of possible explanations and examining the lesion for distinguishing features
C. Ignoring the history and focusing only on the lesion itself
D. Relying on your memory of the few dark lesions you have seen
E. Relying on the probability that most dark lesions are not malignant

N.B. These questions and the answers to them will be posted separately on D2L. The questions and the answers illustrate both expectations and important principles worth knowing. You both must answer the questions and review the correct answers to access your study materials.
Our new curriculum aims high as it should. The old teaching model at COM was badly broken - high on cramming too much information into students, expecting little more than regurgitation on exams, encouraging rapid forgetting. The students were not being treated as graduate students capable of critical thinking, capable of developing the discerning habits of mind essential to effective lifelong learning.

Speaking of those whose learning lasts, retired teacher Alice Venerable Middleton states in Blue Highways “... there’s only one place they can get an education – in the school of thought. Learning rules is useful but it isn’t education. Education is thinking. And thinking is looking for yourself and seeing what’s there, not what you were told was there. Then you put what you see together.”

That’s what I intend this course to be about.
**A Little Taste of How the Mind Cooks Up the World**

*Metacognition*, thinking about how the mind works best and applying that insight, is the bedrock undergirding this course. It is as important to learn how our minds work, and work best to identify and solve real world problems, as it is to acquire content. Perhaps even more important. We can always learn how to use our minds better to find the content and convincing arguments we need.

Curiosity, an intrinsic property of mind, is the principal driver of lasting learning.

Cognition (sorting situations out) is more important than knowledge (memorized tools for understanding and fixing problems). Both are required for problem recognition and problem solving, but one must first decide through cognition which tools are necessary in a given circumstance.

Printed course packs simply reinforce the idea that they contain everything one needs to know. Transmits wrong impression of learning. This is not how life works in medicine or elsewhere. Instead of instructions, readings, and examples in printed course packs, I have developed maps. A map to me implies not merely directions to where you might find something interesting and important, but also causes me to wonder who made the map, how accurate the map might be, what resides in the terrain defined, and what might live in that mysterious land just beyond where the map now ends.
The course introduction then is a set of maps, specially prepared collections of slides that identify, provide directions to, and often illustrate kinds and levels of thinking required in the course.

best use of the mind

learning goals for topics within the known world of dermatology

essential concepts, questions as guides for inquiry, and resources for finding answers

the vast, contiguous, still unexplored terrain of the skin and its disorders

how to recognize and use distinctive clinical patterns to optimally organize skin disease by category of lesion and also distinguish individual conditions within each category

proper sequencing of thinking when facing a skin finding for the first time in order to sort out emergencies and manifestations of systemic disease from conditions localized to the skin

the team-based work expected

the detailed minute-by-minute structure of each classroom hour

the ways that assessment of understanding will be conducted
As Diane Ackerman says, "The mind is a pattern-mad supposing machine." We take advantage of that intrinsic property in this course to learn how to identify reliable patterns of disease and injury in the skin.

A bit of ornithology is taught in the course along with dermatology. The birds highlight, teach, and reinforce the actual process of diagnosis we use in looking at skin lesions.

Identifying birds and identifying skin lesions have a great deal in common. Both require us to pay close attention to the world around us beyond the book and outside the classroom. For both, it begins with seeing clearly, identifying the pattern in front of you including its distribution, comparing that pattern with other unique patterns stored in your brain, noting distinctions in size, shape, color, and arrangement, and finally selecting the best explanation of your observations.

Online and classroom work focuses on seeing similarities and distinguishing differences clearly, then defending your choices. An adequate defense of your choices requires analysis, evaluation, and synthesis, the higher order thinking that is illustrated later in this introduction.
It is now generally well accepted there are two modes of decision-making. *Dual process decision making* involves both *System 1 intuitive reflexive fast thinking* (95% of our time spent here) and *System 2 analytical reflective slow thinking*. Both types of thinking in proper balance are required in life for effective decision making. Slow thinking skin lesions as a medical student, learning dermatology through careful analysis, evaluation, and synthesis of different skin findings, lays the groundwork for the accurate intuitive fast thinking recognition of many common skin lesions as a physician. But the student who has learned to slow think well will also recognize the need to regularly toggle from the intuitive mode to the analytical mode in order to curtail error.

*Cognitive bias*, shortcomings in the process of reasoning and deciding, an ingrained inclination to act in a certain direction (for example, assuming that a dangerous condition you have just diagnosed is much more common than it truly is), is likely a normal operating characteristic of the brain. Intuitive fast thinking is particularly vulnerable to the cognitive error such bias invites. Resorting appropriately to analytical slow thought as a quality check for intuitive thinking helps limit both error and harm to patients. We emphasize this process in this course.
As experienced physicians, we develop and use *illness scripts* in our diagnostic decision making. Illness scripts are sequenced summaries of the way specific problems characteristically unfold. These central features of the stories of illnesses are converted into abstract clinical patterns and stored in our brains. As we gather data from history and physical to assemble a specific illness script for the patient in front of us, we rapidly and unconsciously match it with *lower order reflexive thinking* (using *recall*, *comprehension*, and *application*) against the scripts of possible explanations we have preserved. Illness scripts permit us, often with reasonable accuracy, to guess from bits of dialogue in a few scenes how the entire story (the correct diagnosis) may turn out.

While well-written scripts permit us to efficiently make sense of the world, time pressures and cognitive bias may cause us to write unclearly and misread lines. This can lead to misdiagnosis, unnecessary testing or referral, and harm instead of the benefit we intend. Attention to data collection and judicious application of *higher order reflective thinking* (investing in *analysis*, *evaluation*, and *synthesis*) help prevent this.
Students often find themselves awash in the fragile ornaments called facts. Our minds have a limit on how many useful and pertinent things we can remember about a topic at one time. Creating categories expands the capacity to recall more useful things just when we need them. We should use that insight to focus on organizing the exploration of a subject instead of trying misguidedly to provide a completed map of it. In this course, we will work with you to discover the fir trees of organization, connection, and meaning on whose limbs the best of the ornaments of fact can be hung, preserved, and reliably retrieved.

Lasting learning requires curiosity, interaction, construction of meaning, and accountability.

For learning to consolidate itself in synaptic circuits and last, adult learners like yourselves need to do things in true-to-life settings, not just hear about them; hence, we offer you lots of practice with building your own self-teaching learning tools like diagnostic matrices and algorithms. These tools will help prepare you to put your discoveries and their meaning into your own words both in your small group teams and the classroom now and later in the future when you meet the patients and families who come to you for care.
Special Components of Our Course

We are very fortunate indeed to have Dr. Kennedy and Ms. Nantais again join us to offer their special contributions on Histology and Immunology and enjoy continued access to the wonderful work of Dr. Stephenson on Physiology of the Skin. All of their lectures and labs are listed in the schedule and are considered integral to the course. You will be tested on their material in the final examination. Their lectures and labs will be organized and treated somewhat differently from the material in my portion of the course as discussed in the syllabus.

I am also truly delighted to welcome Dr. Michelle Gallagher as a new partner who will be leading discussions on Pharmacology and Office Dermatological Procedures. The rules for handling her material are the same as those for myself, Dr. Hughes, and Dr. Piro.

And we have added one additional wonderful new learning opportunity. Scleroderma is a relatively rare condition; hence, it has not been part of our course in previous years. However, the Scleroderma Foundation has offered to bring to our campuses patients with scleroderma who on July 28 will meet with us first in small groups and afterward as part of a panel discussion to share their unique perspectives with this chronic illness.
To prepare you for this, you will be expected to review in your teams a new module I have specially created on the topic and you will be expected to attend and participate in both the small groups and the panel discussion. There will be no quizzes during these activities, just a rare opportunity to learn through questions you ask and the answers the patients provide what a biopsychosocial approach to disease, illness, and predicament really means. There will be one question on the final examination on the topic that all attendees should be well prepared to answer correctly.

Moving on to how the course functions, as you will see below, in my portion of the course there will be no traditional lectures. Think of the classroom in this course as a laboratory for practice and place to demonstrate in front of your classmates what you have learned in your own words. Think of it not as a location for yet another lecture, but as an interactive laboratory in which you sharpen your ability to see and describe, hone critical thinking skills and learn to efficiently solve real world problems.
Interaction will be always emphasized in this portion of the course. All students will be expected to participate as fully prepared student teams who have done the necessary work ahead of time. We need others to help us do our job best. Functioning in teams is the model for medicine in the future and this course is designed to give you practice with that model. True teamwork demands mutual effort. Each team member must contribute and has much to contribute to the co-learning of the group. I expect that students working in their self-selected groups of three will need to invest about two-three hours outside class for each hour in it to do well.

**In the bulk of the course, conventional lectures will not occur.** Instead, every class session will consist of opening and closing quizzes, three to six brief student team presentations, and corresponding faculty discussion and related questions. In essence, each session will be a learning laboratory. 60% of the grade will come from class participation.

Because of copyright concerns and the way the course is planned and delivered, there will be **no** live-streaming or recording of our discussions by Media Services for later review. **And no videorecording, audiorecording, or photographs are permitted in the classroom.** This will be strictly enforced. Any breach will be referred directly to the Dean
The faculty will be intentionally modeling the roles of the primary care physician and the specialist. Most skin conditions can be diagnosed and managed by the primary care pediatrician, internist, gynecologist, and family medicine physician. It is efficient, effective and personally gratifying to do so. We will demonstrate how our dermatologist colleagues can help us teach ourselves to do that and make appropriate referrals to them when necessary.

Dermatology has always been a special part of our curriculum. An opportunity like this has been available in few medical schools in the country. This semester you will be part of an important continuing attempt to reshape and substantially improve instruction at COM, an ambitious undertaking on behalf of more effective teaching and learning. With appropriate investment you will learn a great deal in the process and reap the dividends in your clerkship years and during the remainder of your professional life. It will help you on your COMLEX exam.

I welcome your assistance in making this endeavor a very nice gift to yourselves and to the students who follow you.
Individual Course Learning Goals for 2017

Retain essential concepts, vocabulary, principles of decision-making, effective and efficient diagnostic processes, and the essence of evidence-based treatment ready for use in the clinical years

Stress rigorous pre-class preparation by student teams in order to first find and discuss answers to the study questions provided them and then rehearse the oral presentation of those answers before their classmates

Use your own words to express definitions and defend conclusions in public. Change lectures into laboratories

Learn how the brain works best in clinical situations and apply those insights in class

Expand the capacity to recognize and use distinctive clinical patterns to optimally organize skin disease by category of lesion and also distinguish individual conditions within each category

Become comfortable with efficient diagnostic algorithms (proper sequencing of thinking when facing a skin finding for the first time using the clinical clues available to you) which promptly and accurately sort out patients with skin problems who are seriously ill or at risk to complications from chronic illness from those not so sick

Be able to recognize emergencies presenting in the skin

Be able to recognize skin signs of systemic illness

Be able to recognize skin findings which suggest underlying anatomical abnormalities

Be able to outline the principles of necessary, effective, and safe treatment for the conditions discussed in the course

Learn when consultation for skin findings is truly required to optimize patient care
To accomplish these aims, we will proceed as follows:

You must work in threesomes (your choice of teammates) throughout the class, including the final examination. It is important that threesome selection be accomplished early because your learning folders (concepts and conditions you must know, questions you must answer, and essential resources) will be ready on the OST 576 D2L site on June 26, 2017 and you will need to get started to be ready for the first day we meet together on July 6, 2017.

There are two important sign-up deadlines. To avoid any penalty, you must identify yourselves as threesomes to Cheryl Luick (luick@msu.edu) by June 19, 2017. Failure to do so will result in a loss of 10 points from your course grade.

If Cheryl is not notified by 5 p.m. June 26, 2017 you will not be permitted to work in threesomes in advance, you will still be called upon in class to present as part of an unfamiliar threesome, and you will have 40 points deducted (slightly more than 13%) from your final grade. Previous classes have avoided any penalty. Team selection has always been complete well before the first deadline.

No changes in threesomes will be permitted during the course. No groups of four will be allowed. And groups of two will be permitted only at the discretion of the instructor to assure no one has to work alone. The instructor will pick the necessary few groups of two in that case.
Self-selection of three person teams by Monday June 19, 2017 (see previous page)

June 26 – July 5: Team review of and practice with instructional objectives, concepts, questions, and resources folders utilizing detailed online example of classroom expectations for students in the Course Syllabus Part 2 (See further below in this Introduction and Course Map) before the first day when students actually come to my class which is Thursday July 6, 2017 (the D2L site will open to students on Monday, June 26, 2017). We will hit the ground running on July 6 with the first pre-quiz at 11:00 on Anatomy of the Skin, so be fully prepared.

Histology Lecture, Labs, and Help Sessions are not included in this schedule, but are in the Course Syllabus

Discussion Schedule (Dates are fixed, but order of topics could change)

Thursday, July 6, 2017:
Anatomy of the skin: (Steve Williams, 11-11:50)

Friday, July 7, 2017:
Dermatological problem-solving I: Distinctive skin lesions, colors, and patterns (Steve Williams, 10-10:50)
Dermatological problem-solving II: The use of symmetry and linearity in dermatological diagnosis: Flexural rashes, sun-exposed sites, acral rashes, truncal rashes, clothing covered areas, acneiform rashes, Koebner phenomenon, lichen striatus, ...) (Steve Williams, 11-11:50)
Wednesday, July 12, 2017:
Papulosquamous disorders: (Greg Piro, 10-10:50)
Vesicobullous disorders: (Greg Piro, 11-11:50)

Friday, July 14, 2017:
Dermatological Office Procedures: (Michelle Gallagher, 10-10:50)
Pharmacology of the Skin: (Michelle Gallagher, 11-11:50)

Wednesday, July 19, 2017:
Skin emergencies I: Toxic epidermal necrolysis, Stevens-Johnson syndrome, meningococccemia, RSF, toxic shock syndrome (Mary Hughes, 10-10:50)
Skin emergencies II: Thermal injury (Mary Hughes 11-11:50)

Friday, July 21, 2017: Broadcasting from MUC
Newborn Skin Disorders: (Steve Williams, 10-10:50)
Acne and Rosacea: (Steve Williams, 11:00-11:50)

Tuesday, July 25, 2017:
A Day of Pediatric Office Dermatology OST 568 (Steve Williams, 9-9:50 Conrad)

Tuesday, July 25, 2017:
Skin tumors: (Greg Piro, 10-10:50)
Pediatric exanthems: Roseola, erythema infectiosum, hand, foot, mouth, and buttock disease, scarlet fever (strep and staph) Steve Williams, 11-11:50)
Wednesday, July 26, 2017:
Scleroderma: Local (Morphea), Limited Systemic Sclerosis and Diffuse Systemic Sclerosis (Online Module Steve Williams)

Thursday, July 27, 2017:
The skin and systemic disease I: A few important endocrine, rheumatologic, and other disorders (Greg Piro, 10-10:50)
The skin and systemic disease II: Two common genodermatoses; additional important oncologic, rheumatologic, and other disorders (Greg Piro, 11-11:50)

Friday, July 28, 2017: Scleroderma Panel Discussions

Monday, July 31, 2017:
Dermatitic eruptions and vascular reactions: Atopic dermatitis, nummular dermatitis, contact irritant and allergic dermatitis, diaper dermatitis, urticaria, angioedema, pernio, Raynaud's disease, livedo reticularis (Steve Williams, 10-10:50)
Infections and infestations: Impetigo, folliculitis, scabies, lice, arthropod bites, fungal infections, genital ulcers and papules,... (Steve Williams, 11-11:50)

Friday, August, 4, 2017: Broadcasting from DMC
Alopecia and nail disease: (Steve Williams, 10-10:50)
Disorders of hyperpigmentation and hypopigmentation: (Steve Williams, 11-11:50)
Monday, August 7, 2017:
Special skin injuries: Solar damage and reactions, lichen simplex chronicus, cutting, child abuse and its mimics (Steve Williams, 10-10:50)
Skin lesions which potentially flag underlying anatomical abnormalities: (Steve Williams, 11-11:50)

Tuesday, August 8, 2017:
Final Examination Review: (Steve Williams, 10-10:50)

Thursday, August 10, 2017:
Final Examination: 10-11:50
A Note on Appropriate Use of Your Resources Folder

As your team works to prepare for class by answering the questions in your question folder (your map for study) you will naturally open the companion resources folder. In that folder you will find PowerPoint slide sets (where necessary these again have been revised in important ways for 2017 – more information, clearer photographs, more carefully focused targeting of additional required readings) containing many of the answers to the questions posed in your question folders. You will often have to work some with the material in those Powerpoints to figure out the answers though. You will need to compare photographs of different conditions to truly see the similarities and distinguishing differences between/among them.

The more examples you see of different conditions the better. Thus the material in the PowerPoint slide sets will often need to be supplemented by going to the selected derm websites your faculty has vetted such as aad.org (Medical Student Core Curriculum), emedicine.com, and dermnetnz.org to find additional photographs illustrating the conditions as well as carefully vetted text. We are emphasizing seeing and describing rather than reading in this course, but you will be held accountable for understanding and phrasing in your own words any carefully targeted text to which you also may be directed.

In real life the primary care physician looks information up every day in the clinic; we want to give you experience with this as part of the course. Most of all we really want you to see, think, and express yourself clearly with confidence. The more examples you see of selected conditions, the more variations on a theme, and the more you have discussed your findings with your teammates, the better you will be able to identify those conditions in real patients of your own and shine in the classroom in front of your colleagues.
Excellent Web Sites

http://www.aad.org

Click on Education and then scroll down to **Basic Derm Curriculum**. You may need to enter Basic Derm Curriculum in the search box upper right to access the site. You can then scroll down through list of modules that appears below to 27 February 2016 and click on it. When you find a required module in the A-Z categories, click on it to download. A box will appear. Click on **read only** and you’re in. **This is a required resource**. You will be expected to review the topics covered in your Resource folders on D2L (e.g., Henoch-Schoenlein purpura) in those aad.org modules to which your Questions folders direct you, but you will **not** be tested on forms of other forms vasculitis in those modules that are not mentioned in D2L Resource folders (e.g., periarteritis nodosa). **See how to best use aad.org discussion on next slide**

http://www.pediatrics.wisc.edu/education/derm/tutorials.html

Superb presentation of primary lesions, secondary lesions, and arrangement. Essential foundation of the course. **This is a required resource**

http://emedicine.medscape.com/dermatology

Click on any of listed conditions covered in the course. **Review and summarize the detail of clinical presentations**, but seek to grasp merely an overview of basic science, pathophysiology, and the general principles of therapy. Wonderful discussions
HOW TO BEST USE THE **REQUIRED** AAD.ORG BASIC DERMATOLOGY CURRICULUM

The aad.org site is a wonderful resource. Use it to explore the different conditions mentioned in the question sets and resource slide sets your instructor discussants have provided for you on D2L in order to improve your ability 1) to **see, describe, and recognize** distinctive presentations; 2) **sketch** pathophysiology and clinical behavior; 3) **summarize** truly essential diagnostic tests; and 4) **outline** epidemiology, clinical implications, and treatment. Note that we ask for a sonnet about 1) but only haiku for 2), 3), and 4). Our primary focus in the course is on clinical diagnosis, on what you see and touch in front of you and learn from the patient’s story and then put into your own words.

You will not be held responsible for conditions covered in the aad.org site that we do not mention in our question and resource slides. So look at the ones we mention first. However, if we do mention disorders, there may well be relevant material in the corresponding aad.org modules you will need to review and use for answering questions before class in order to get ready for the quizzes and for presentations in class. Rubella and measles provide good examples.

This is not a text heavy course. Of course, you must understand the text provided in our resources slides and on aad.org. However, the more illustrations you see of the same condition, the better you will be able to recognize it in the clinic. You will find that dermnetnz.org and Visual Diagnosis offer additional useful pictures.

There is a lot of very neat stuff on aad.org. Many of you will no doubt want to explore more subjects or explore in greater depth the topics we direct you to. Great clinicians do that.
VisualDx is available here:


As you may know, students and faculty both have access to the site. And all of us must follow the site copyright rules precisely (I have marked slides used in class).

Several of the photographs I am using in the course this year come from here. It is really cool that there are many different photographs of the same condition. As long as you work within your teams, you could put photographs of different similar conditions from the site (as well as appropriate examples from dermnetnz.org, following same copyright rules) side by side on the same sheet to create diagnostic montages like the ones I show you in your resource folders and class. Great self-organized what is shared, what is discriminating visual teaching tools. But, do not share with others outside your own personal teams. This would be a violation of the intent of the course and risks unacceptable copyright infringement.

While there are really neat lists of differentials on the site, I would not advise using them for the course. They include conditions we do not cover in the class and would take a lot of extra time to study those. Would likely even be a bit confusing to do so. I would use the site on your clerkships though. Really easy to use it and look up the conditions you have not studied previously just in time for your clinical work, just as we physicians do every day.

The clinical pearls offered on the site are also neat. Unless we mention them in your resources on D2L or during class presentations, they are something to use on your clerkships.
1. Look at **A-Z index of conditions and treatments** for pictures and descriptions of most of the conditions we will cover in this course. Topics easy to locate. And the more examples you see of different conditions, the better you will become at recognizing them.

2. For voluntary practice if you wish, go to Contents on the scroll bar, under General Information click on **Continuing Medical Education** and then click on: **Dermatology Course for Auckland Medical Students** to find a very nice review of concepts and vocabulary, conditions, and self-tests designed for your counterparts in the southern hemisphere.

3. You will be notified in your question sets and resource folders about some carefully selected sections where the text is particularly helpful and highly recommended. In general you will not be held accountable for text related to treatment in this site since there may be some differences in practice cited from what is currently recommended in this country and we want to maximize clarity in the course.
How Your Teams Should Work

Each group of three will not only study together, but also be prepared to answer in front of all of your other classmates on live TV three questions (at times phrased a bit differently to more fully test understanding) that are drawn from the larger pool of questions in the question folder that guides preparation for the session. And as well be prepared to answer any follow-up questions from your faculty discussants. You will have the pool of questions (questions you must answer study guide) available to you at least one week before each session. Your presentations will constitute an important part of your final grade.

Unless you have presented earlier, you will not know coming into class if the three of you will be called upon in that particular session. That is why pre-preparation of answers is essential for all questions found in the folder.

We will make every effort to assure this will not be a class where the few students in the room sit passively and read scribe notes later. Your attention to what is discussed in class and your respect for your fellow student presenters will be essential. Faculty discussants will also be addressing questions from time to time to individual members of the larger audience. And the quiz at the end of each session will draw in part from fresh material covered in class discussion as well as that studied before coming to class.

High stakes. No one has to come to class. I will treat you as adults always. But no make-up quizzes or presentations. And we have had near-perfect attendance for each session every year for the entire course.
Teams will be called to the front of the class and as you walk forward you will see on the screen the three questions the three of you must answer on a slide presented to all students at the three sites. You will have a total of five minutes to answer your questions.

In past years, I permitted teams to bring small notecards for assistance when speaking to their classmates and professors in front of the class. However, this has been getting in the way of students stating things in their own words, a crutch which actually impairs actively and thoughtfully walking through topics with your professors. Reading from the cards is simply not useful to the learning process. Hence, again this year no notecards or other reference material of any kind may accompany you when you and your team are called up to answer questions in front of the class.

During the one minute available when up in front for reviewing your collective thoughts about the questions you are being asked to answer, you and your teammates will also select which of you will answer which one of the three questions in presented to the team as a whole (everyone will have a job to do). And then you will have four minutes as a team to answer the three questions. So practice beforehand is clearly essential, especially now that notecards have been eliminated.

Physicians are public speakers every day. This class will give you some useful practice. Many of you may be a bit nervous. Come prepared and use your eyes and fine minds, your own words, not those of others, to answer your questions. You will be treated with understanding and kindness in front of the class. We know many of you may just be getting used to public speaking. Focus on presenting your own thoughts in your own way. Don't worry about getting your speech perfect, just about getting your ideas across. You may surprise yourself by developing and offering ways of explaining things useful not only to your classmates but also to your professors. And you will certainly consolidate your own understanding.
Session Template

**Minute 0-1:** Initial iclicker quiz (2 points)

**Minutes 2-48:** Team presentations and faculty discussion (worth up to 40 points per team)

Team 1: Five minutes for preparing and delivering answers - **one minute** for looking at projected question set (see next slide), reviewing thoughts, deciding on which team member will tackle which question and then **four minutes** for answering questions

  Faculty discussion of question 1: Three minutes

Team 2: Five minutes ....

  Faculty discussion of question 2: Three minutes

Travel time (to and front of class and back): One minute

Team 3

  ...... and so it goes

**Minutes 49-50:** Final iclicker quiz (5 points)
14. Which characteristic lesion in acne is absent from rosacea?

15. How would you treat rosacea most successfully? How does the treatment of acne differ from that for rosacea?

16. This twelve-year-old boy has bumps on his face. Is Benzoyl peroxide an appropriate choice of treatment? Defend your answer
After the first member of your team provides an answer to the first question, the faculty discussant will provide the correct answer and any necessary clarification and amplification with a few slides. Then the next teammate will answer the second question. And so on. Your team can earn up to 40 points for each member of the team through correct answers. **If a member of the team is not present when the team is called upon, the remaining team members will be expected to answer all of the questions by themselves. The missing team member will forfeit all his or her points unless the absence is excused by Elizabeth Petsche.** There will be **no** make-up opportunities for absences unexcused.

In addition to the class presentations, **in each session there will be a graded one minute iclicker prequiz** (for this course you must always have your clicker with you - **no exceptions**) **beginning promptly at the beginning of each class** (Clearly, you must be on time and settled in your seats before the hour - latecomers will not be permitted to take the quiz). **This initial quiz is worth two points. And at the end of each session there will be another harder two minute graded iclicker post-quiz worth five points in which you will apply what you have learned to date, including what was just covered in class.**

You may work quietly within your original threesomes on those quizzes, but **no discussion among threesomes will be permitted.** Just as on the final examination. Any such action of conferring across threesomes will be considered unprofessional; the consequences for violation of this rule will be significant (see Professionalism and Academic Honesty in Student Handbook and Resource Guide)
A note on changes in pre-quizzes, post-quizzes, presentations, and final examination for 2017:

A few students mentioned in their evaluations in 2016 that I should completely change the pre-quiz and post-quiz questions and answers from year to year. I have always sought to improve pictures, questions, and answers, and have over the years redesigned many quizzes while keeping some unchanged. I wanted to keep assessment relatively constant and focus on helping students improve their understanding and performance. I am not naïve but have always asked that quizzes not be passed on to other classes. This is a course about seeing and thinking rather than simple memorization. But I have listened again this year as I always do and have reviewed all quizzes and redone almost all pre-quizzes and post-quiz for 2017. About same degree of difficulty, but new.

There are no shortcuts to learning and becoming a fine physician. Useful learning requires active exploration and discovery – cognition (sorting out) is more important than memory (tools), because you first need to sort out new situations before you can decide which tools to use. I want notes passed on from year to year to be useless in this course. Therefore, I have reviewed and altered the questions in the question folders used for study and rewritten some of the actual questions that will be asked during the team presentations in class. And, as mentioned earlier in this introduction, in 2017 we will again completely eliminate the use of notecards or other presentation aids in class. This is simply done to make the learning experience more valuable for you.

This year passing the course will again require a grade of at least 75% on the final. Nearly every student met this standard in 2016.

I will again schedule a one hour final exam review conducted simultaneously for all sites after the course has ended.

I remain deeply committed to your learning. It is a privilege to be a co-learner and a teacher. This has always been a course designed for and continuously reshaped by future physicians. In my quest for ever greater usefulness, I read and think about every evaluation carefully. And this year’s course will be an even better one because I do.
Scoring of team presentations:

Each threesome will be asked three questions by the faculty member, one question directed to each member of the team. The team may choose who answers each question.

There will be two recall questions worth 10 points each and one application question involving pictures worth 20 points.

If all three questions are answered correctly, each member of the team will get 40 points. Incorrect answers could result in a score for each member of the team ranging from 0-35.

Dermatology is about seeing, touching, thinking clearly. From the beginning of the course, each member of the team should come prepared to answer questions not only in his or her own words but also by identifying a portion of a slide or defending a choice of diagnosis while looking at an unknown.

The complexity of the questions for the threesomes will gradually increase as the course proceeds. Those called on at the beginning will have less familiarity with the process; this in itself will increase the degree of difficulty for them. Those who are called upon later will have the benefit of experience from watching others perform and have a larger body of knowledge to draw upon. But every effort will be made to assure fairness for all teams.
More regarding rationale, process, and scoring of presentations in 2017 OST 576:

1. We want you all to be successful
2. We recognize that public speaking may not come naturally to all of you, but to be successful all physicians (except for pathologists and radiologists) must have the ability to convey their impressions and recommendations clearly to patients and pathologists and radiologists must themselves be able to communicate effectively with their fellow physicians. This course will give you some useful practice
3. Remember that you are among friends. No matter how many years of experience we have we are all students of medicine, all co-learners. And we want every prepared student to succeed
4. Clearly you will want to practice answering questions to each other in your teams before the class. A lot.
5. Each member of the team will be asked a question and have the primary responsibility for answering it. Of course, team members (not the audience) can offer consultation if the presenter gets off on the wrong track or even stuck during the team presentation.
6. The team will have up to five minutes set aside to review ideas, select who will answer which question, and answer the team’s questions
7. For the purposes of this course, an unacceptable answer to a question will be given zero points. An excellent answer will earn ten or twenty points, depending upon the question. Partial credit (in five point increments) may be awarded at the discretion of the faculty discussant.
8. As the course proceeds, you will become increasingly capable of answering more complex questions than you were at the beginning of the course and you will be expected to do so
Overview of Grading

There will be 317 possible points available in the course.

The passing score for the course will be 80% (254 points) and that score must include a grade of at least 75% (96) on the Final Examination; anything less than that will earn an N.

Failure to score 254 will result in an N grade and remediation. A score of 301 or greater will earn a letter of commendation from the course director.

60% of your final grade will come from class participation:

The quizzes and class presentations combined will offer 189 possible points.

The potential value of the 21 classroom quizzes = 147 points (149 with Histology quizzes included)

The maximum value of the class presentation by the student team = 40 points (partial scores will be awarded if answers are incorrect)

Hence, class participation will account for 189 points (including Histology Lab)

The Final Examination will have 64 questions each worth 2 points for a total of 128
As mentioned, the final examination will be worth 128 points. You may work in your original threesomes on this examination. No conferring across teams will be permitted just as on the quizzes during the course. Each of you is responsible for your own answer of course, just as you were in quizzes and presentations.
Directions available within the folders under Lessons in D2L will provide you with a map to learning. In them you will find the learning objectives, the concepts you must know, the questions that serve as your guide to the topics, and the resources in which the basic ingredients of answers will be found. Some additional questions will be raised and answered during class discussions. **You will be accountable for all material covered inside each session and assigned for it outside of class.** The end of session quizzes will test the additional learning which should have occurred during each session.

Thinking can be ranked from lower to higher as follows:

- recall
- comprehension
- application
- analysis
- judgment (evaluation)
- synthesis

This course will be centered on the use of higher order thinking
Bloom’s Levels of Cognitive Complexity (lowest to highest)

- Remembering (Recalling)
- Understanding (Comprehending)
- Applying
- Analyzing
- Evaluating (Judging)
- Creating (Synthesizing)
An example of lower order thinking:

Which skin rash mandates an immediate call to the Centers for Disease Control? Smallpox is the answer. Which level of thinking does this represent?

An example of higher order thinking:

Assume you see photographs of granuloma annulare and tinea corporis – see http://www.dermnet.org.nz/sitemap.html for pictures of granuloma annulare and tinea corporis. What do the lesions share and what distinguishes them?

The best argument that the lesion in the photograph is granuloma annulare and not tinea corporis is the

A. absence of secondary lesions
B. color of the lesion
C. location on the body
D. primary lesion
E. shape of the lesion

Absence of secondary lesions (scale) is the answer. Granuloma annulare and tinea corporis share everything in the list above except scale. Which level of thinking does this represent?
1. What are the distinguishing features of *Verruca vulgaris* (common warts)?

2. What are the distinguishing features of *Molluscum contagiosum*?
   
   *(Brief summary in own words)*

3. Which is which in these slides? Defend your answer
   
   *(You will learn how to do this in the course, promise)*

---

**Applicable Bloom Level of Cognitive Complexity**

- **Remembering (Recall)**
- **Understanding (Comprehension)**

---

This question worth 20 points

**Applicable Bloom Level of Cognitive Complexity**

- **Applying (Application)**

---

Each question worth 10 points
The following slide is an example of **either** the second quiz in each class session **or** a question on the *final examination*. Note that the highest levels of cognitive reasoning are required to answer the question satisfactorily.

![Applicable Bloom Levels of Cognitive Complexity](image)

After inspection, most likely of a slide you have not seen presented by the faculty before, you must:

1) **first determine**, through analysis and evaluation, the distinguishing findings of the skin lesion shown in the photograph, and **then**
2) **synthesize** your observations and name the condition before you **can**
3) recall and select the correct treatment among the options available
A two-year-old boy has had the following eruption on his trunk and upper limb for the past two months. The MOST APPROPRIATE choice of topical treatment is

A. a calcineurin inhibitor
B. a fluorinated corticosteroid
C. an antibacterial antibiotic
D. an antifungal antibiotic
E. beetle juice extract
We will begin with quizzes and class presentations by the teams of students on the very first day of class on July 6, 2017. Questions for all sessions will be available one week before the class begins. The topics for our first day will be:

10-11: Anatomy of the skin

The expectation is that all of you will have studied the materials for that first day and to come to class prepared in the very first session to take the opening and closing quizzes and to be called upon to answer questions as threesomes. So you will need to plan ahead.

The same applies to the following session on July 7, 2017 when the topics will be:

10-11: Dermatological Problem-Solving I
11-12: Dermatological Problem-Solving II

And so on throughout the course
In order to be fully prepared for your quizzes and presentations, beginning on the first day of class **July 6, 2017**, you will need to review in advance and thoroughly understand all of the material related to each topic covered in the learning objectives, concepts, questions, and resource folders on D2L as well as that included in modules on mandatory websites to which you are directed.

In other words, everything actually on D2L _plus_

For July 6: [http://www.aad.org](http://www.aad.org) in the Basic Derm Curriculum

- Basic Science of the Skin

For July 7: [http://www.aad.org](http://www.aad.org) in the Basic Derm Curriculum

- Morphology


Be sure to review and be able to recognize and differentiate primary and secondary lesions as well as arrangements.

And so on for each day the class meets.

While we will discuss and hold you responsible for basic principles of therapy in the course, we will emphasize diagnosis and differential diagnosis using clinical patterns alone (procedures and lab tests performed only when absolutely necessary). The more different examples you see of the same condition the better the diagnostician you will become.
I expect each hour of class time will require about two-three hours of preparation by the teams. That assumes that the teams of three will be discussing the material for each session to assure understanding as well as answering the questions and, if they have not yet presented, practicing answers in their own words before their potential presentations in class. Remember there are two quizzes in each session for all teams, even they do not present.

Each member of the team should learn all of the material and answer all of the questions in preparing for the quizzes. For presentations, each member of the team will be called upon in class; each individual answer will help determine the final score for the entire team.

Hence, you should plan to budget about two-three hours outside class (of course, some may require or choose to allot more) for team study before the first day of class and four-six hours before the second. And so on. I do know you have other classes, but it obviously makes sense to complete most preparation reasonably well in advance, so that the night before is a more relaxed and confident review. This a course where good thinking on your feet pays off.

Obviously the same drill applies to the remainder of class sessions on the subsequent Mondays, Tuesdays, Wednesdays, and Fridays (see Schedule for the titles of lessons and full schedule).
The primary emphasis in this course will be learning how to diagnose and to defend your diagnosis of common and/or important conditions which manifest in the skin.

Although diagnosis is our main focus, for all conditions covered you will be expected to understand and summarize (in a few of your own words – we do not really understand anything until we can put it into our words and explain it to others):

- **Pathogenesis**
- **Genetic inheritance** (not inherited, multifactorial, autosomal dominant, …)
- **Clinical presentations** (Collect pictures and make a montage for study)
- **Mimics (conditions which at first glance they could reasonably be confused with)** (Collect pictures of the condition and its mimics and make a montage for study of similarities and differences)
- **Diagnostic techniques** (clinical presentation, special tests)
- **Treatment and its Rationale** (classes of medications, mechanisms of action, principal side-effects)
- **Prognosis** (recovery, remission, or persistence)
- **Prevention** (what is effective if anything)
- **Emergency** (yes or no)
- **Signal of underlying anatomical malformation** (yes or no)
- **Manifestation of systemic illness** (never/rarely or frequently)

Start developing your own personal folder of condition summaries early in the course. You then can input these summaries into your smart phone for use during clinical rotations.
Condition: Tinea corporis
Pathogenesis: Dermatophyte which lives in the stratum corneum
Genetic inheritance: None
Clinical presentations: In general, annular lesions (erythematous rim of papules and scale with central clearing) anywhere on the body (you should create montages of all conditions for review of different pictures from the websites used in the course)
Mimics: Herald patch of Pityriasis rosea, nummular dermatitis
Diagnostic techniques: Mostly clinical pattern which differentiates it from its mimics (you must know how to use clinical presentations to differentiate all conditions from one another by the end of the course); occasionally, KOH prep
Treatment and its Rationale: Antifungal cream
Prognosis: Good response to treatment; may be reacquired
Prevention: Generally ineffective because fungus is ubiquitous
Emergency: No
Signal of underlying anatomical malformation: No
Manifestation of systemic illness: Almost never

Anything on this list for a condition covered in the course is considered fair game for quizzes, presentations, and the final examination. Start compiling your summaries early
Classification of Skin Disorders: How You Can Usefully Organize the Conditions You Will Be Expected to Know (lists below may not be complete – may be a few more conditions covered in the course)

**Papulosquamous disorders** (psoriasis, lichen planus, seborrhoeic dermatitis, secondary syphilis, nummular eczema, drug reactions, pityriasis rosea, tinea corporis)

**Vesicobullous disorders** (Rhus dermatitis, bullous pemphigoid, pemphigus vulgaris, bullous erythema multiforme, many infections)

**Alopecia and nail disorders** (alopecia areata, androgenetic alopecia <male pattern, female pattern>, tricotillomania, tinea capitis, traction alopecia, loose anagen syndrome, anagen effluvium, telogen effluvium)

**Skin flags for underlying anatomical abnormalities** (hair tufts, hemangiomas, vascular malformations, … )

**Injuries** (solar damage, burns, cold injury, child abuse and neglect, pressure ulcers, pyogenic granuloma)

**Dermatitic eruptions** (atopic dermatitis, contact dermatitis <irritant, allergic>, diaper dermatitis, … )

**Vascular reactions** (urticaria, pernio, … )

**Papulopustular disorders** (erythema toxicum, pustular melanosis, acne vulgaris, rosacea, infections and infestations)

**Genodermatoses** (tuberous sclerosis, neurofibromatosis)

**Manifestations of endocrine, metabolic and nutritional disorders** (acanthosis nigricans, alopecia <hyperthyroidism, hypothyroidism>, xanthelasma )

**Connective tissue and other systemic diseases** (SLE, dermatomyositis, Kawasaki syndrome, erythema nodosum)

**General signs of systemic illness** (central cyanosis, jaundice)
### Classification of Skin Disorders: How You Can Usefully Organize the Conditions You Will Be Expected to Know (Continued) - (lists below may not be fully complete)

<table>
<thead>
<tr>
<th>Category</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pigmentary disorders</strong></td>
<td>café-au-lait spots, freckles, lentigines, Mongolian spots, nevus spilus; pityriasis alba, vitiligo, post-inflammatory hypopigmentation and hyperpigmentation, …</td>
</tr>
<tr>
<td><strong>Drug eruptions</strong></td>
<td>exanthematous, urticarial &lt;including anaphylaxis&gt;, erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis</td>
</tr>
<tr>
<td><strong>Purpura</strong></td>
<td>Henoch-Schoenlein disease, meningococcemia, Rocky Mountain spotted fever</td>
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<tr>
<td><strong>Disorders of keratinization</strong></td>
<td>ichthyosis vulgaris, seborrheic keratoses</td>
</tr>
<tr>
<td><strong>Newborn conditions</strong></td>
<td>erythema toxicum, pustular melanosis, miliaria &lt;crystallina, rubra, pustulosa&gt;, epidermolysis bullosa, nevus sebaceous</td>
</tr>
<tr>
<td><strong>Vascular birthmarks</strong></td>
<td>capillary hemangioma, capillary malformations salmon patches, port wine stains</td>
</tr>
<tr>
<td><strong>Pediatric exanthems</strong></td>
<td>roseola, erythema infectiosum, …</td>
</tr>
<tr>
<td><strong>Disorders of dermis and subcutaneous tissues</strong></td>
<td>granuloma annulare</td>
</tr>
<tr>
<td><strong>Sclerosing and atrophying conditions</strong></td>
<td>striae, …</td>
</tr>
<tr>
<td><strong>Neoplasms</strong></td>
<td>nevocellular nevi (moles), juvenile xanthogranuloma, basal cell carcinoma, keratoacanthoma, actinic keratosis, squamous cell carcinoma, malignant melanoma, cherry angioma, spider nevus, lipoma, dermatofibroma, skin tag, Paget’s disease, …</td>
</tr>
<tr>
<td><strong>Infections and infestations</strong></td>
<td>impetigo, folliculitis, cellulitis, abscess, verruca vulgaris, molluscum contagiosum, scabies, lice, arthropod bites, varicella, herpes zoster, herpes simplex, roseola, scarlet fever &lt;streptococcal, staphylococcal&gt;, staphylococcal scalded skin syndrome, erythema infectiosum, hand-foot-mouth-and buttock disease, Lyme disease, disseminated gonorrhea, genital ulcers &lt;primary syphilis, herpes simplex, chancroid, granuloma inguinale, lymphadenoma venereum, Behcet’s syndrome&gt;, genital papules (verruca vulgaris, molluscum contagiosum, scabies, pink pearly papules&gt;, smallpox, monkeypox, tinea versicolor, sporotrichosis, onychomycosis, …</td>
</tr>
<tr>
<td><strong>Bites and stings</strong></td>
<td>common arthropod bites, spider bites, snake bites, hymenoptera stings</td>
</tr>
</tbody>
</table>
Although this course is focused on dermatology, it will prepare you to approach clinical problems across all systems with effectiveness and efficiency. The diagnostic methods and process that guide us most reliably and efficiently to best treatment are the same for all single system and multisystemic problems: history; physical; synthesis and recognition of the clinical pattern in front of you; generation of a differential – a list of contending patterns of disease and injury which share some of those features; pruning that list by identifying clinical discrepancies in the clinical patterns of the contenders, constructed from their own typical histories and customary exam findings, which are incompatible with the pattern in front of you; then, if necessary and only then, using carefully selected diagnostic tests as tiebreakers; and, finally selecting the best intervention based upon evidence of its benefit and risk. This is the process your teachers in this course use every day and will demonstrate for you. And it is the process which, by maximizing quality and minimizing cost, adds the most value to medical care delivered.

Every student who devotes herself or himself appropriately to the learning opportunity ahead will pass this course. The course coordinator promises to do his best to ensure that all of you who apply yourselves will gain a useful working knowledge of relevant dermatological conditions and valuable insights into clinical problem-solving.

All of you can reach me by email (hiramcatfish@gmail.com) with content questions and I will respond in a reasonably timely manner. All administrative questions should be directed first to Cheryl Luick (luick@msu.edu)

I look forward to an important, interesting and useful course. I will do my best to meet those goals.