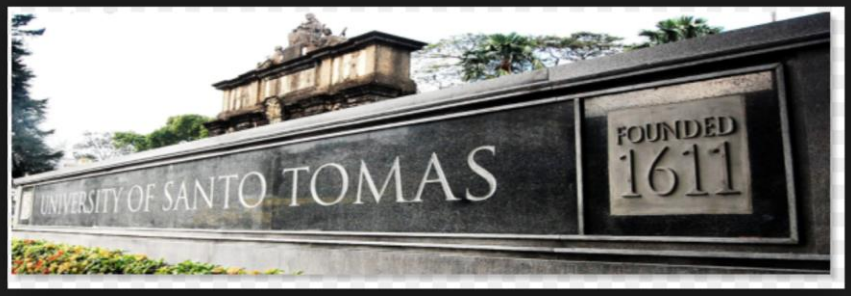
MEDICAL EDUCATION in the DIGITAL AGE: REFORMS AND CHALLENGES

QS SUBJECT FOCUS SUMMIT – MEDICINE
Universities Innovating for Future Healthcare
Kaohsiung Convention Center
October 16-18, 2017

Ma. Lourdes D. Maglinao, MD, MHPEd, FICS, FAFN
Dean, Faculty of Medicine and Surgery
University of Santo Tomas, PHILIPPINES



MEDICAL EDUCATION in the DIGiTAL AGE:
REFORMS and CHALLENGES

QS SUBJECT FOCUS SUMMIT – MEDICINE
October 16-18, 2017

OUTLINE

- Brief historical background
- Traditional methods of teaching
- Outcome-based education
- Use of technology in Medical Education
- Challenges in adopting technology
- Trends in Medical Education

HISTORICAL MILESTONES

1959- The Medical Act.

1967 – The Association of Philippine Medical Colleges was founded

1968 – Granting of MD degree after 4 years

1970 – content based curriculum converted to objective based curriculum

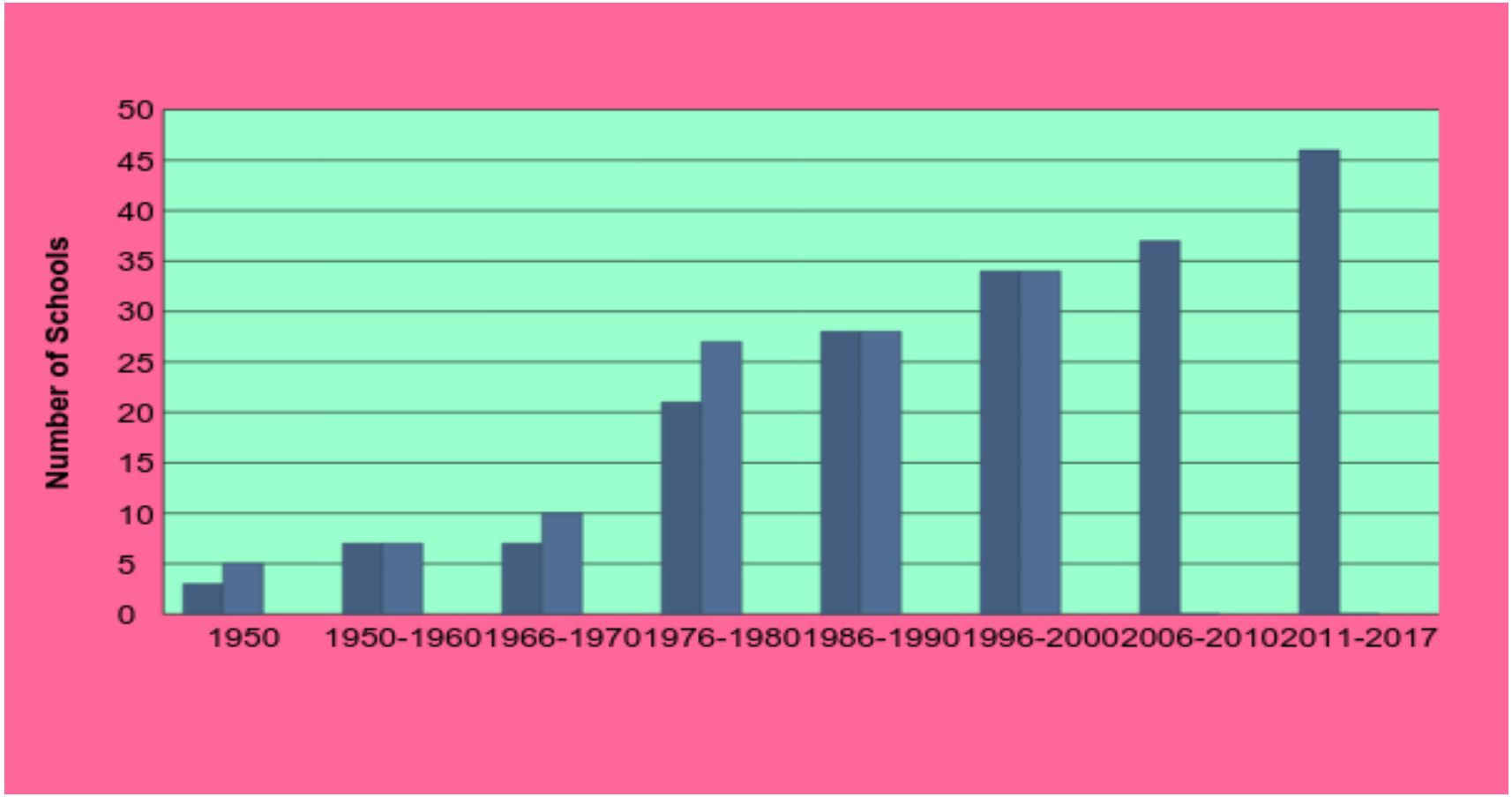
1978-81 – Competency based Curriculum "**5 Star Physician**"

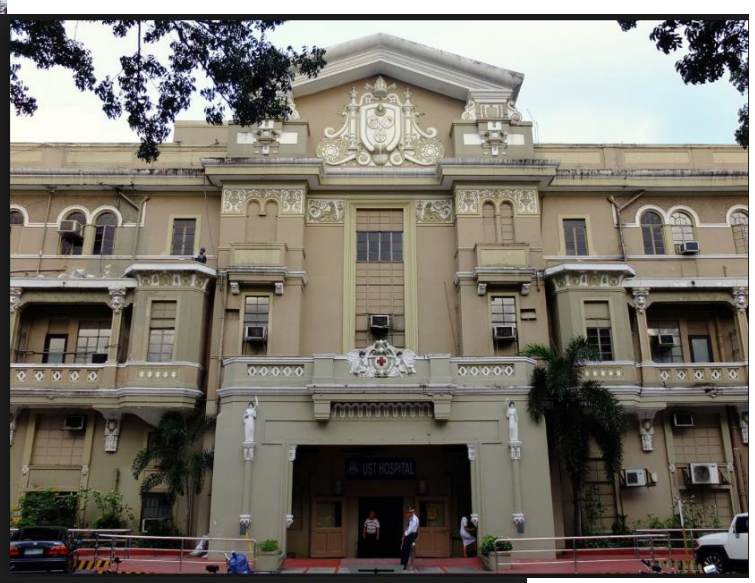
1982 – Integration of Primary Health Care in Medical Curriculum.

1999 – The APMC affiliated with the Philippine Accrediting Association of Schools, Colleges and University (PAASCU)

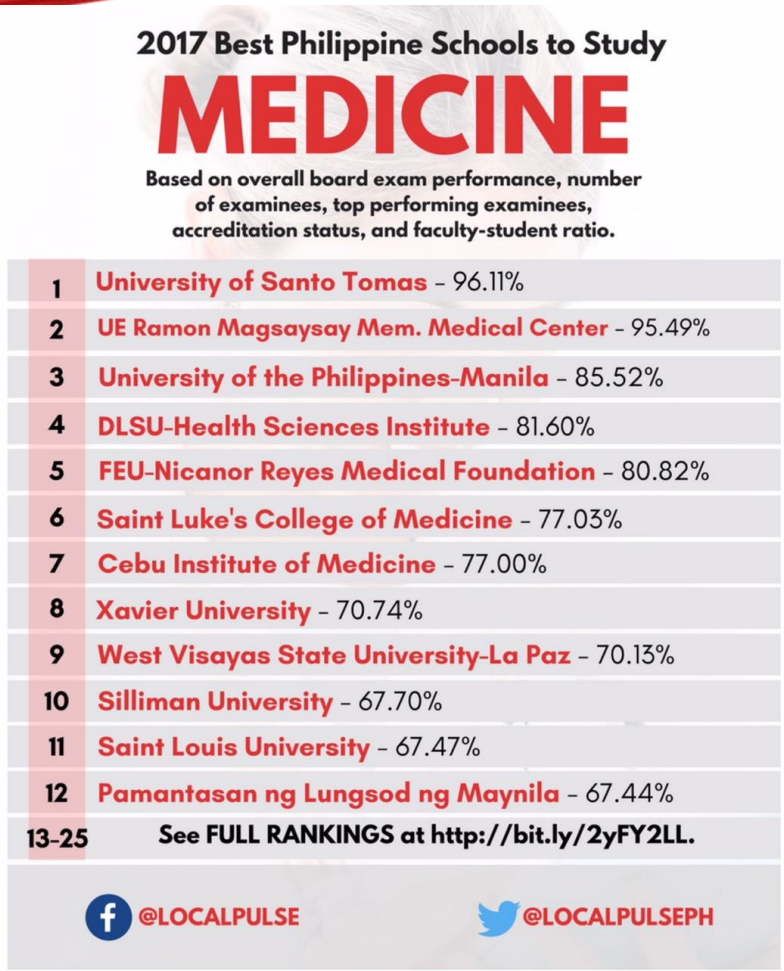
2012 – Commission on Higher Education (CHED)- CHED MEMO #46 series 2012

2017 – 46 Medical Schools


Number of Schools
50
45
40
35
30
25
20
15
10
5
0
1950
1950-1960
1966-1970
1976-1980
1986-1990
1996-2000
2006-2010
2011-2017



- Students
- COE
- Faculty
- Research
- Physicians Licensure Examination
- Programs
- Top performing school
- International linkages



Here are the top passers:

PASSERS: SEPTEMBER 2017 PHYSICIAN BOARD EXAM TOPNOTCHERS

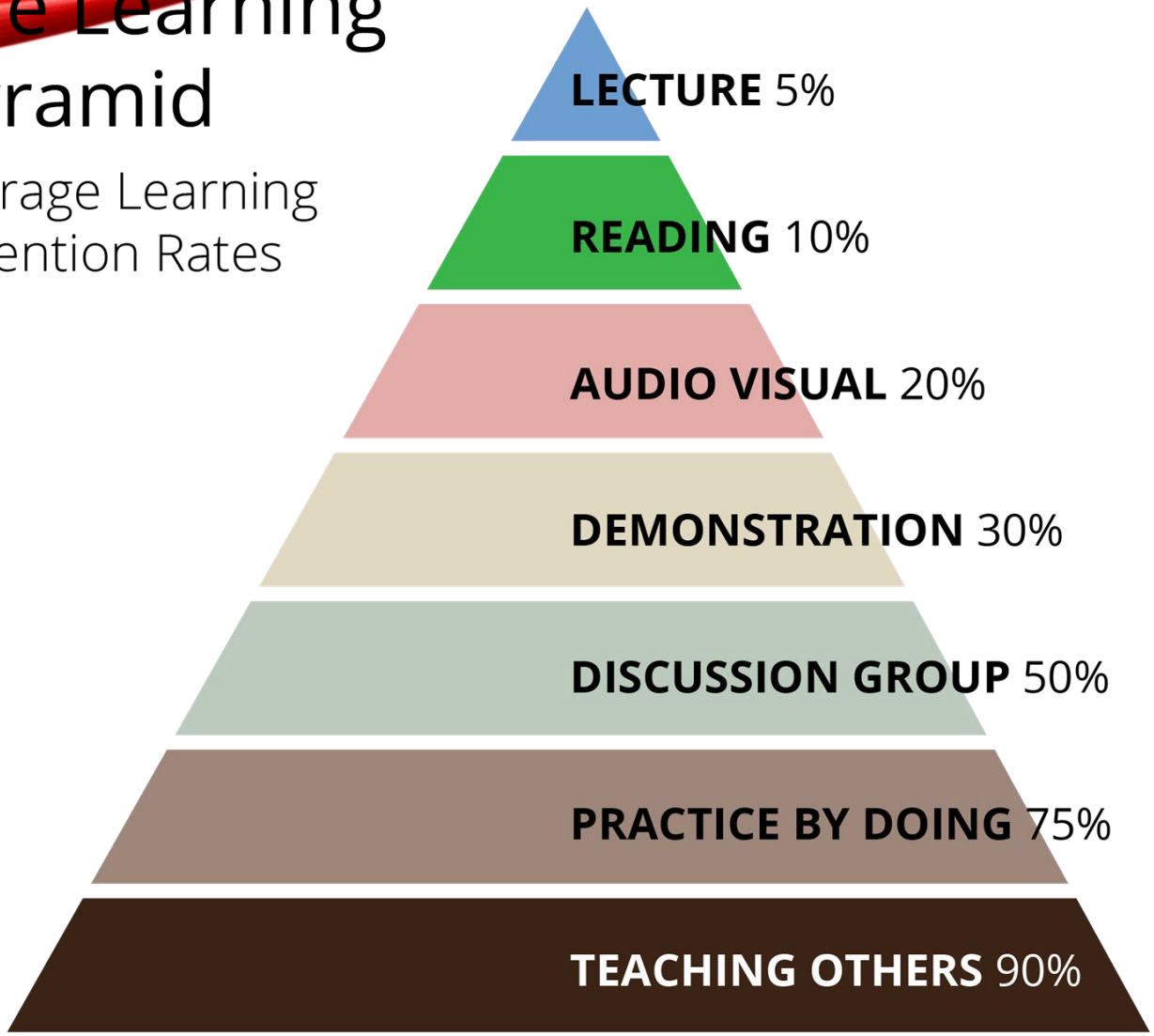
RANK	NAME	SCHOOL	RATING %
1	VINCENT EDOUARD ANTHONY RETARDO GULLAS	UNIVERSITY OF SANTO TOMAS	90.50
2	JAN DAVID CHOA MONZON	DE LA SALLE UNIVERSITY- HEALTH SCIENCES INSTITUTE	90.08
2	ROBERT CARANDANG REÑA	DE LA SALLE UNIVERSITY- HEALTH SCIENCES INSTITUTE	90.08
3	KARL PHILLIP LUMIO AVILLO	WEST VISAYAS STATE UNIVERSITY-LA PAZ	90.00
4	MARC VINCENT NGO BARCELONA	UNIVERSITY OF SANTO TOMAS	89.83
5	ANA ERYKA ELAINE ADRIANO PERALTA	UNIVERSITY OF SANTO TOMAS	89.67
6	ALDRIC CRISTOVAL CHUA REYES	UNIVERSITY OF THE PHILIPPINES-MANILA	89.58
7	MARK ANDRIAN ORILLOZA YANO	CEBU INSTITUTE OF MEDICINE	89.50
8	STEPHANIE MARIE CARBON SENO	UNIVERSITY OF SANTO TOMAS	89.42
9	SIMON LIM GO	UNIVERSITY OF SANTO TOMAS	89.33
10	KELVIN KEN LEE YU	UNIVERSITY OF SANTO TOMAS	89.25

RANK	SCHOOL	TOTAL NO. OF EXAM.	TOTAL NO. PASSED	PERCENTAGE PASSED
1	CEBU INSTITUTE OF MEDICINE	122	122	100.00%
1	SAINT LUKE'S COLLEGE OF MEDICINE	83	83	100.00%
2	WEST VISAYAS STATE UNIVERSITY-LA PAZ	101	100	99.01%
3	PAMANTASAN NG LUNGSOD NG MAYNILA	108	106	98.15%
4	UNIVERSITY OF THE PHILIPPINES-MANILA	150	146	97.33%
5	UNIVERSITY OF SANTO TOMAS	482	468	97.10%
	ATENEO DE MLA UNIV. SCHOOL OF MED. & PUBLIC HEALTH-PASIG	138	134	97.10%
6	UNIVERSITY OF THE EAST RAMON MAGSAYSAY MEM MEDICAL CTR	326	316	96.93%
7	XAVIER UNIVERSITY	56	54	96.43%
8	SAN BEDA COLLEGE	106	100	94.34%
9	CEBU DOCTORS UNIVERSITY-COLLEGE OF MEDICINE	110	103	93.64%
10	FAR EASTERN UNIVERSITY-NICANOR REYES MEDICAL FOUNDATION	268	248	92.54%

TRADITIONAL METHOD OF TEACHING

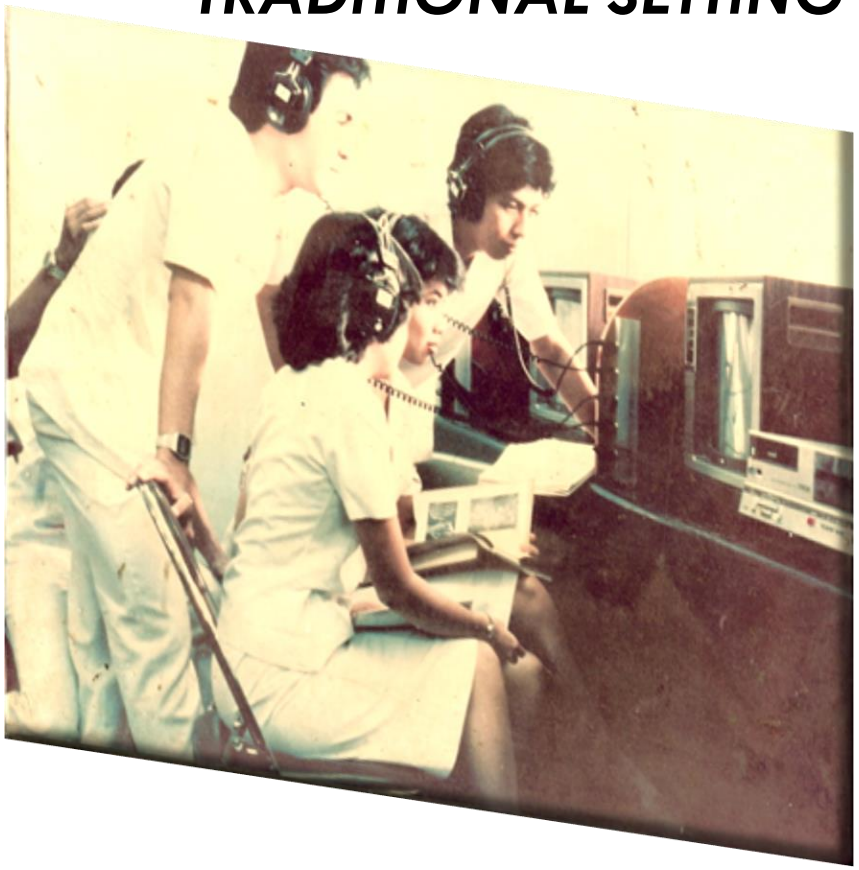
The Learning Pyramid

Average Learning Retention Rates

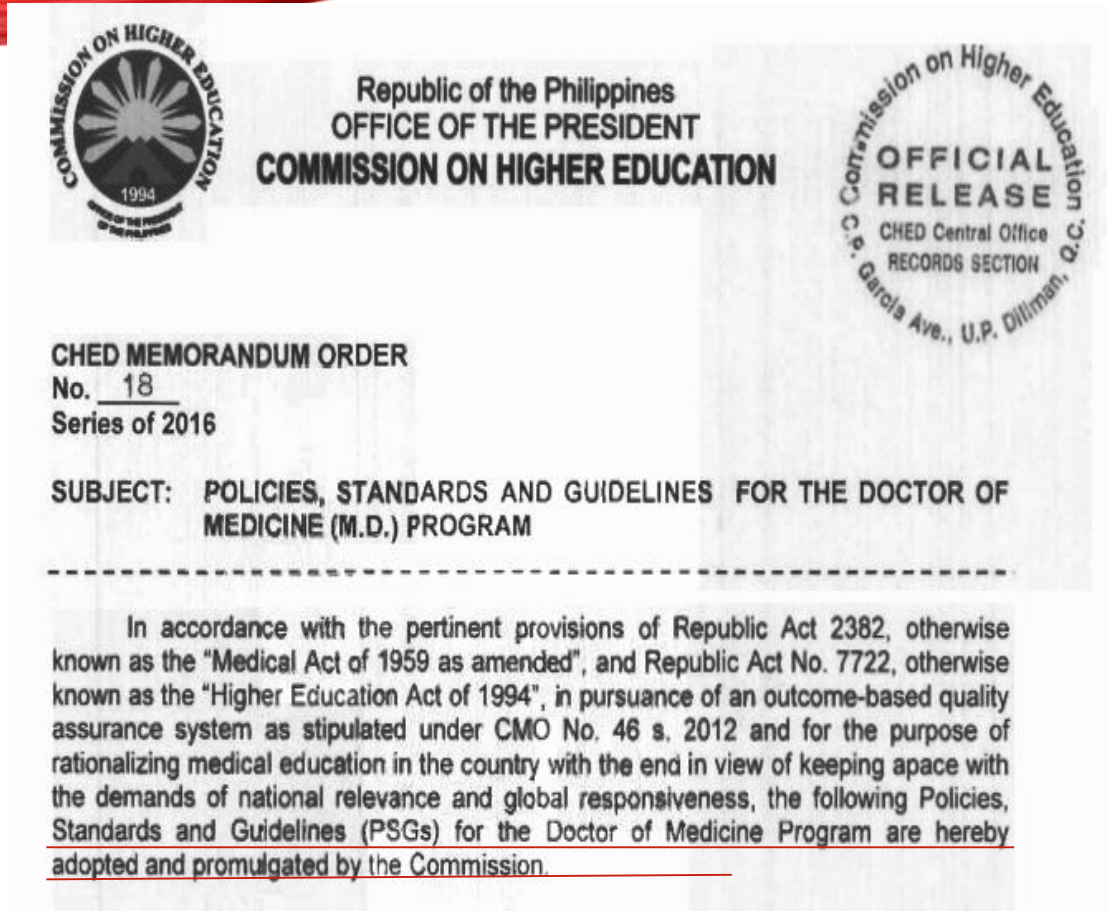


Adapted from NTL Institute for Applied Behavioral Science

USE OF TECHNOLOGY IN THE TRADITIONAL SETTING



USE OF TECHNOLOGY IN THE TRADITIONAL SETTING



Republic of the Philippines
OFFICE OF THE PRESIDENT
COMMISSION ON HIGHER EDUCATION

Commission on Higher Education
OFFICIAL RELEASE
CHED Central Office
RECORDS SECTION
C.P. Garcia Ave., U.P. Diliman, Q.C.

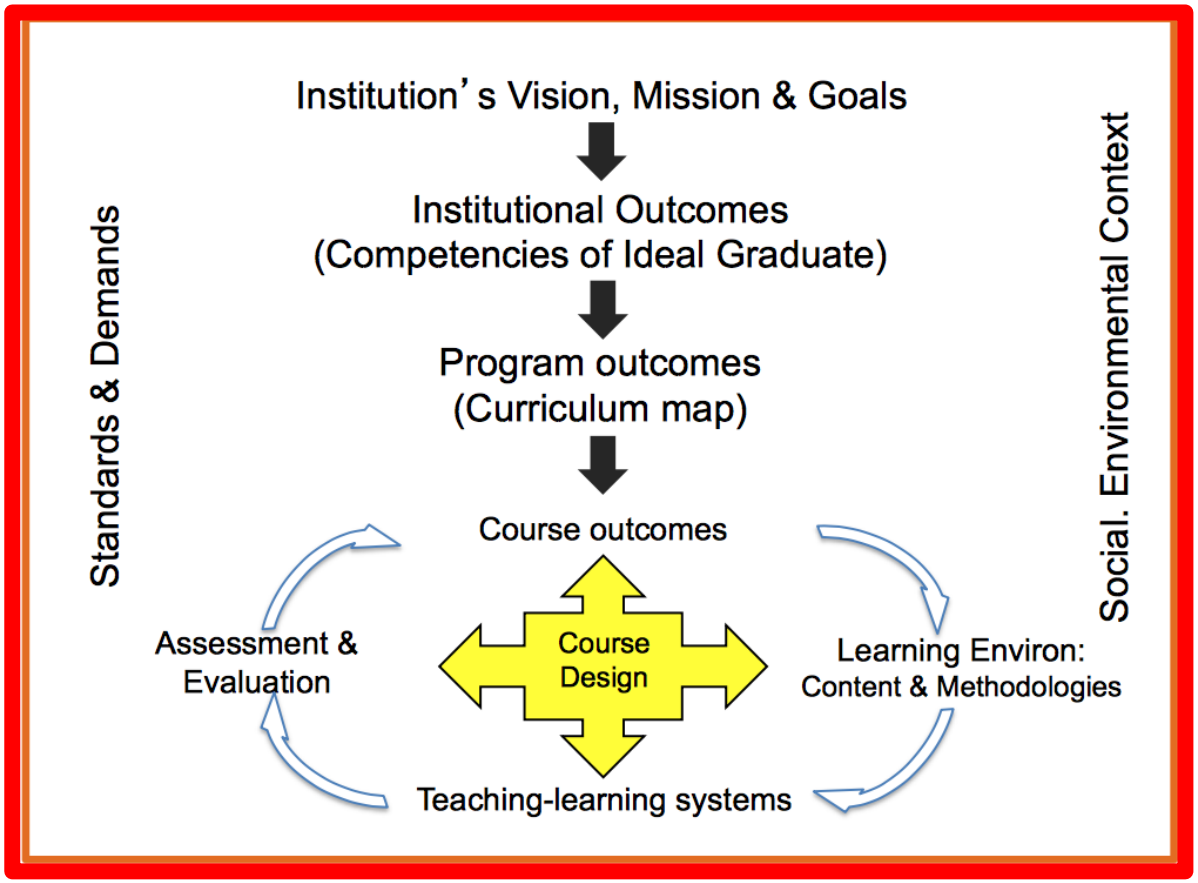
CHED MEMORANDUM ORDER
No. 18
Series of 2016

SUBJECT: POLICIES, STANDARDS AND GUIDELINES FOR THE DOCTOR OF MEDICINE (M.D.) PROGRAM

In accordance with the pertinent provisions of Republic Act 2382, otherwise known as the "Medical Act of 1959 as amended", and Republic Act No. 7722, otherwise known as the "Higher Education Act of 1994", in pursuance of an outcome-based quality assurance system as stipulated under CMO No. 46 s. 2012 and for the purpose of rationalizing medical education in the country with the end in view of keeping apace with the demands of national relevance and global responsiveness, the following Policies, Standards and Guidelines (PSGs) for the Doctor of Medicine Program are hereby adopted and promulgated by the Commission.

"rationalizing medical education in the country with the end in view in keeping apace with the demands of national relevance and global responsiveness"

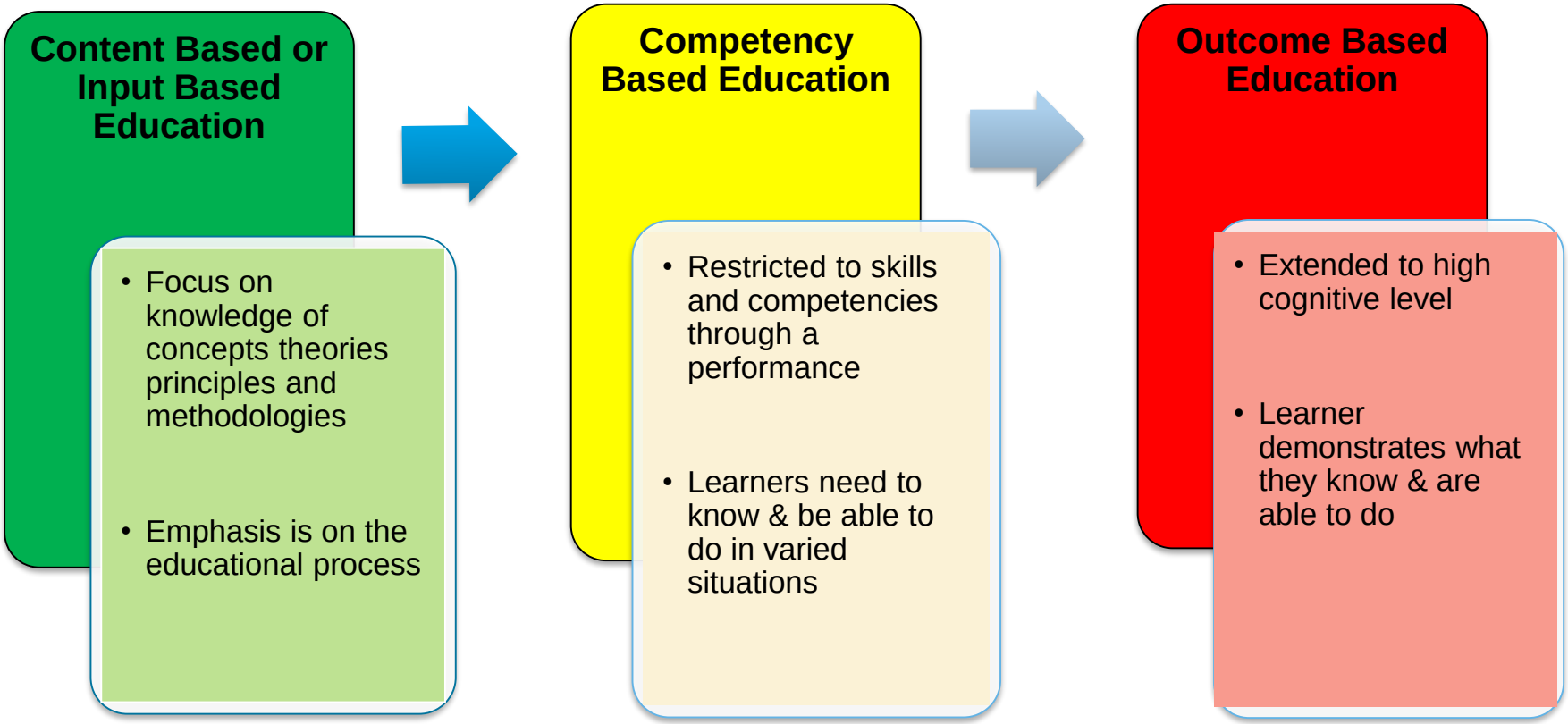
FRAMEWORK FOR OBE



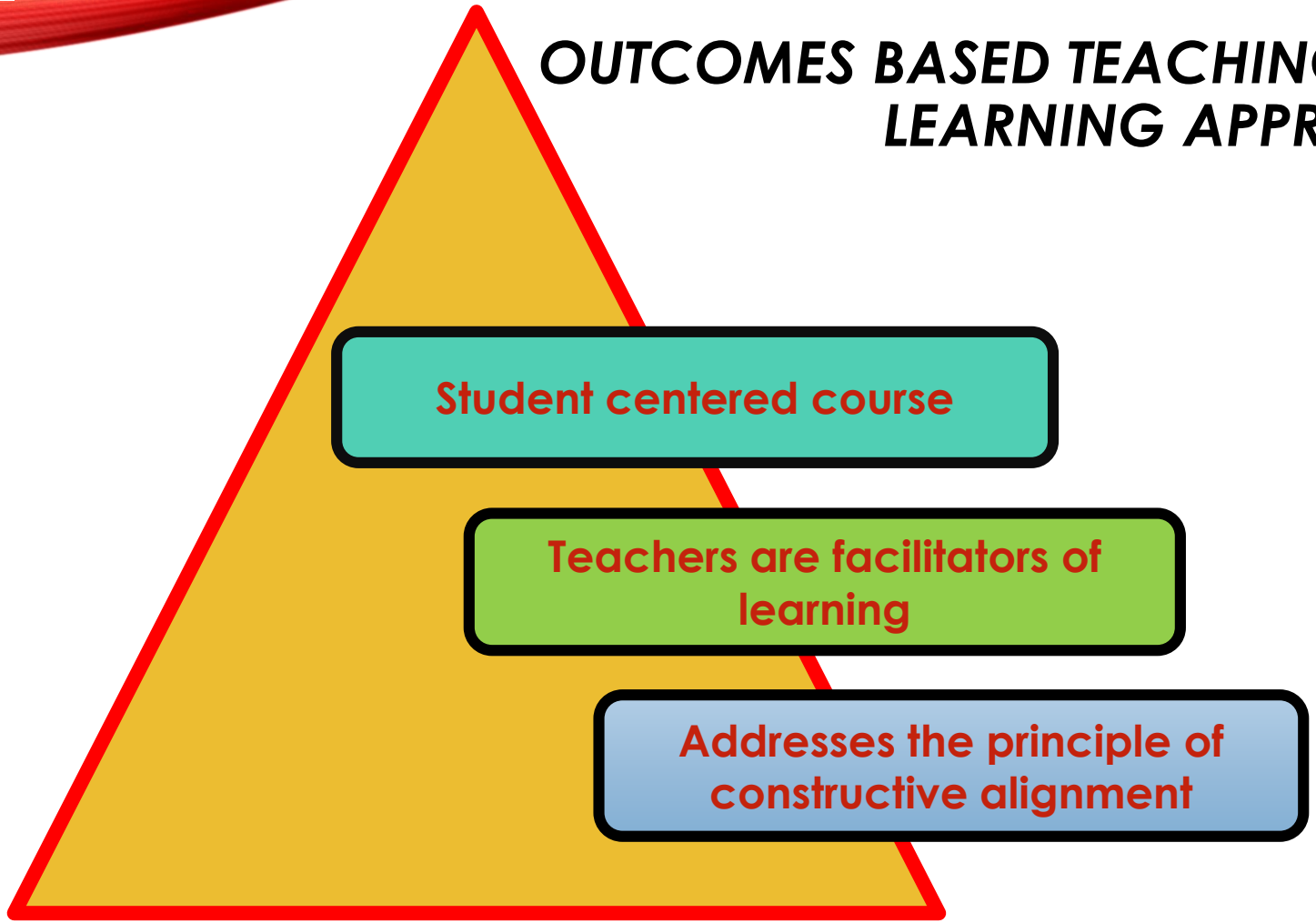
MACROCURRICULUM

MICROCURRICULUM

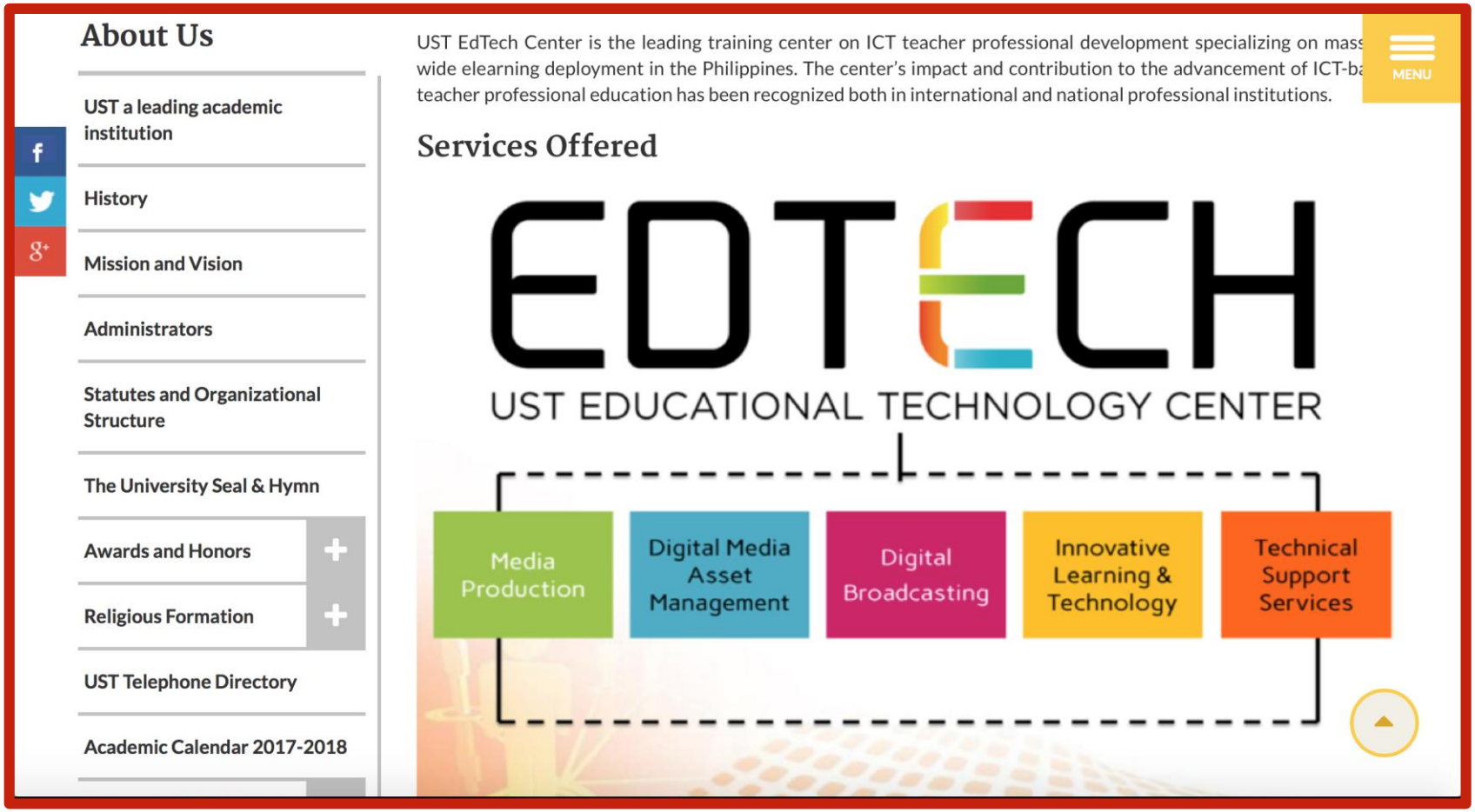
MEDICAL EDUCATION IN THE PHILIPPINES



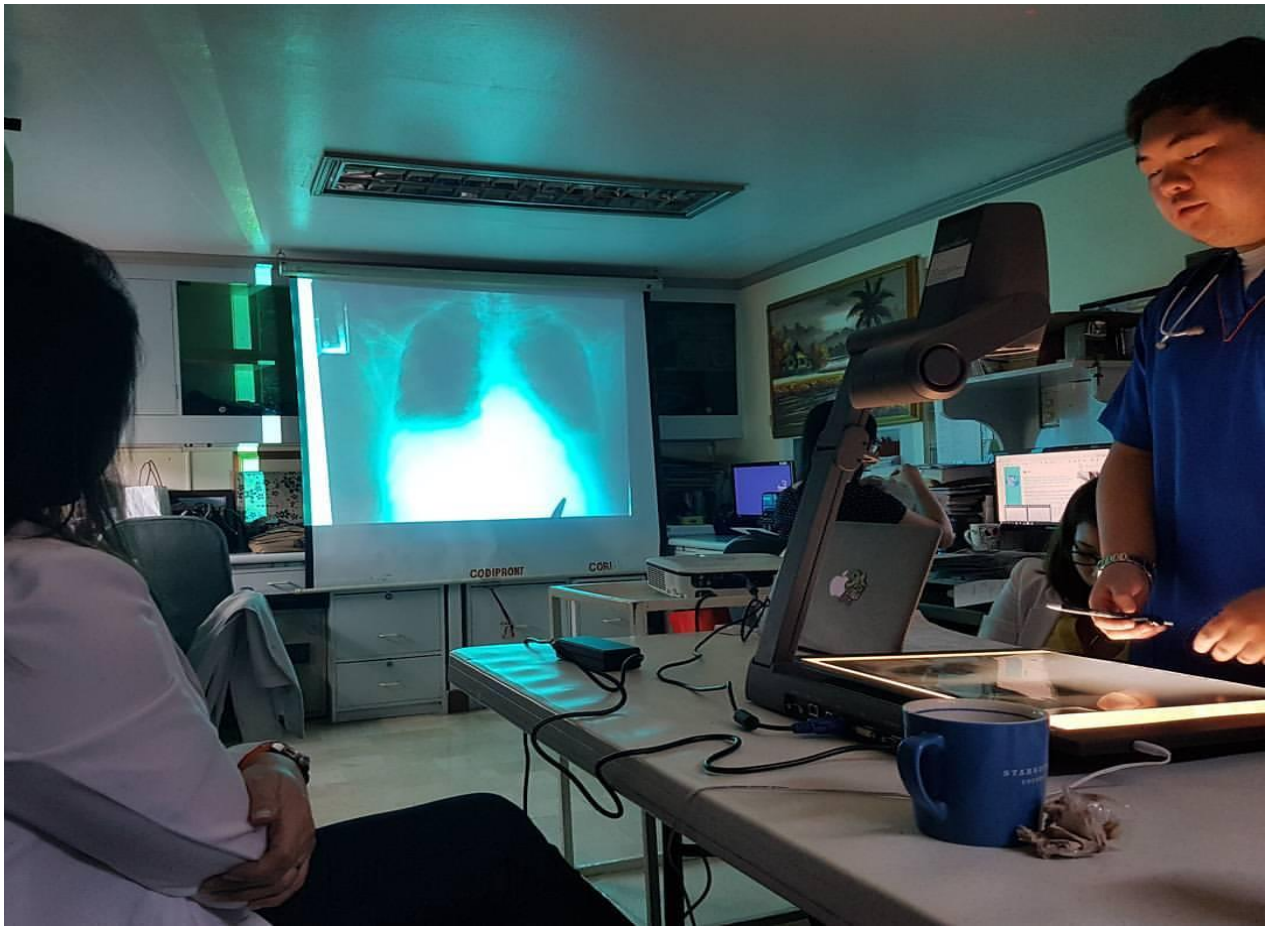
OUTCOMES BASED TEACHING AND LEARNING APPROACH



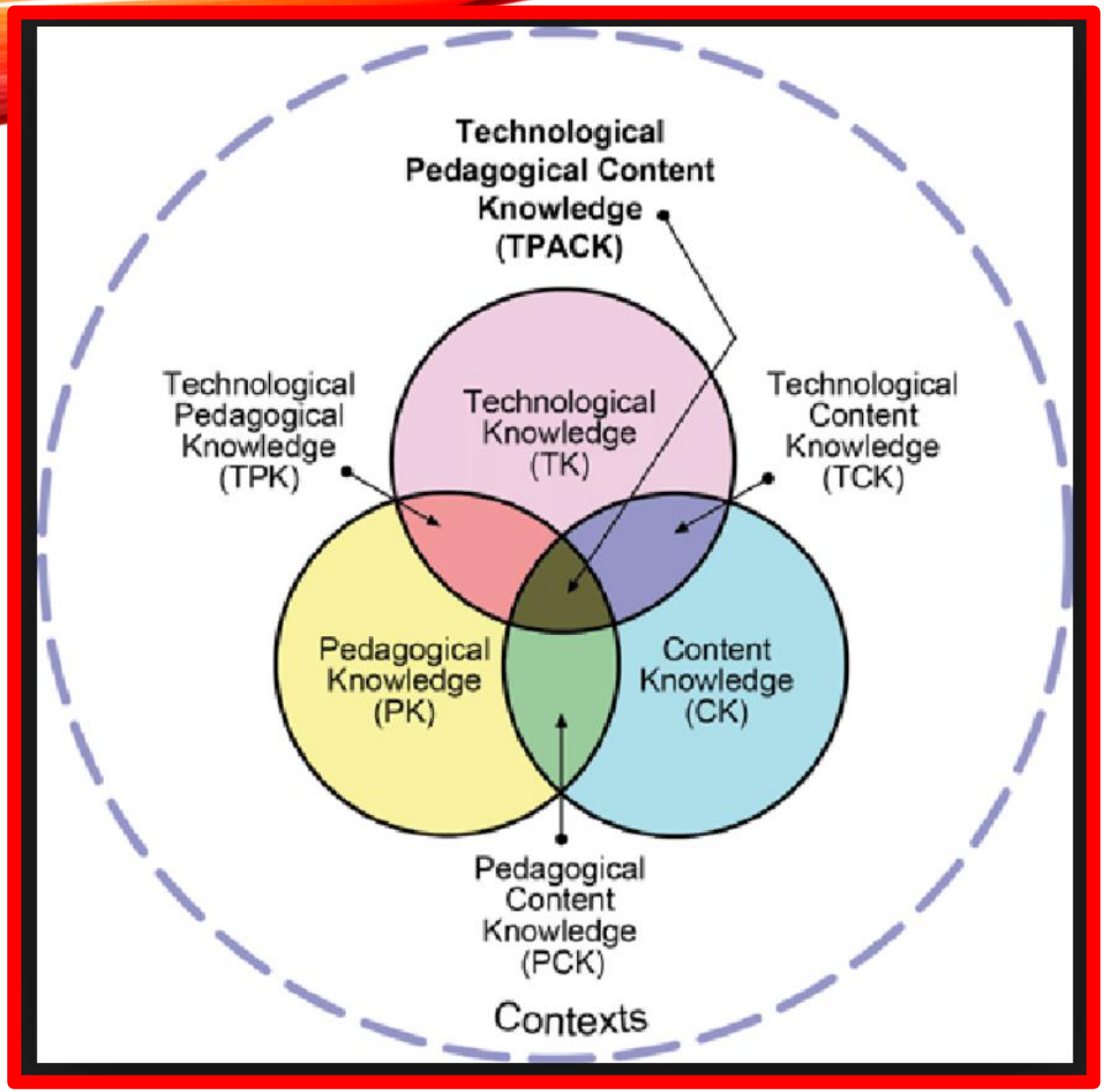
USE OF TECHNOLOGY IN MEDICAL EDUCATION



USE OF TECHNOLOGY IN MEDICAL EDUCATION



TPACK


Technological Pedagogical Content Knowledge (TPACK)
Technological Pedagogical Knowledge (TPK)
Technological Knowledge (TK)
Technological Content Knowledge (TCK)
Pedagogical Knowledge (PK)
Content Knowledge (CK)
Pedagogical Content Knowledge (PCK)
Contexts

FLIPPING ONLINE

Flipping Online	**Traditional Classroom**	**Flipped Classroom**
Before Class		Read and/or Watch lecture before class
During Class	Listen and take notes in class	Student centered discussion and formative quizzes. Students consolidate understanding with professor
After Class	Students consolidate understanding	Students further consolidate and apply learnings.

TED Ed | Edit Lesson | Review Student Work | Share Lesson | TED

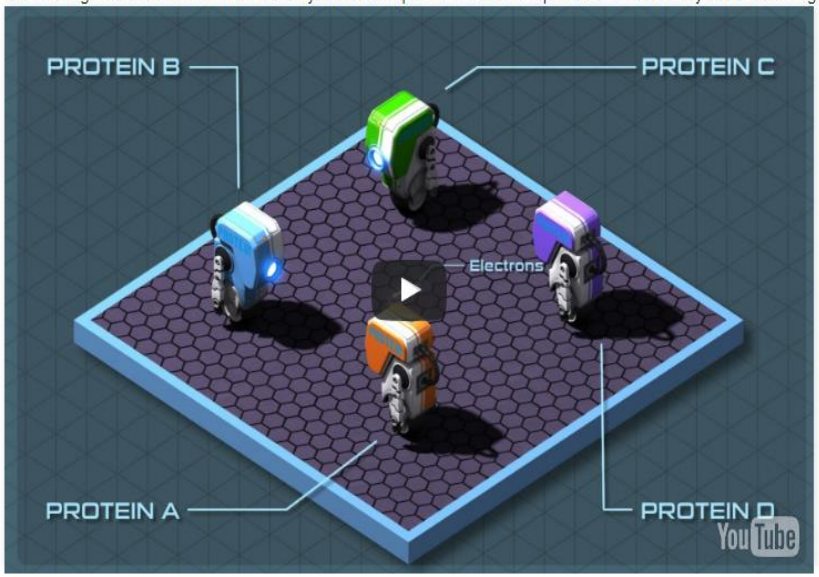
The operating system of life - George Zaidan and Charles Morton

LESSON CREATED BY **EARL LOUIS SEMPIO** USING TED Ed

VIDEO FROM **TED-Ed** YOUTUBE CHANNEL

Let's Begin…

Humans, octopi and pine trees alike are all made up of cells, tiny but sophisticated systems that keep life going. Cells are almost like tiny factories run by robots, with the nucleus, DNA, proteins, lipids, and vitamins and minerals all playing critical roles. George Zaidan and Charles Morton lay out the blueprint of a cell and explain how biochemistry binds all life together.



Watch

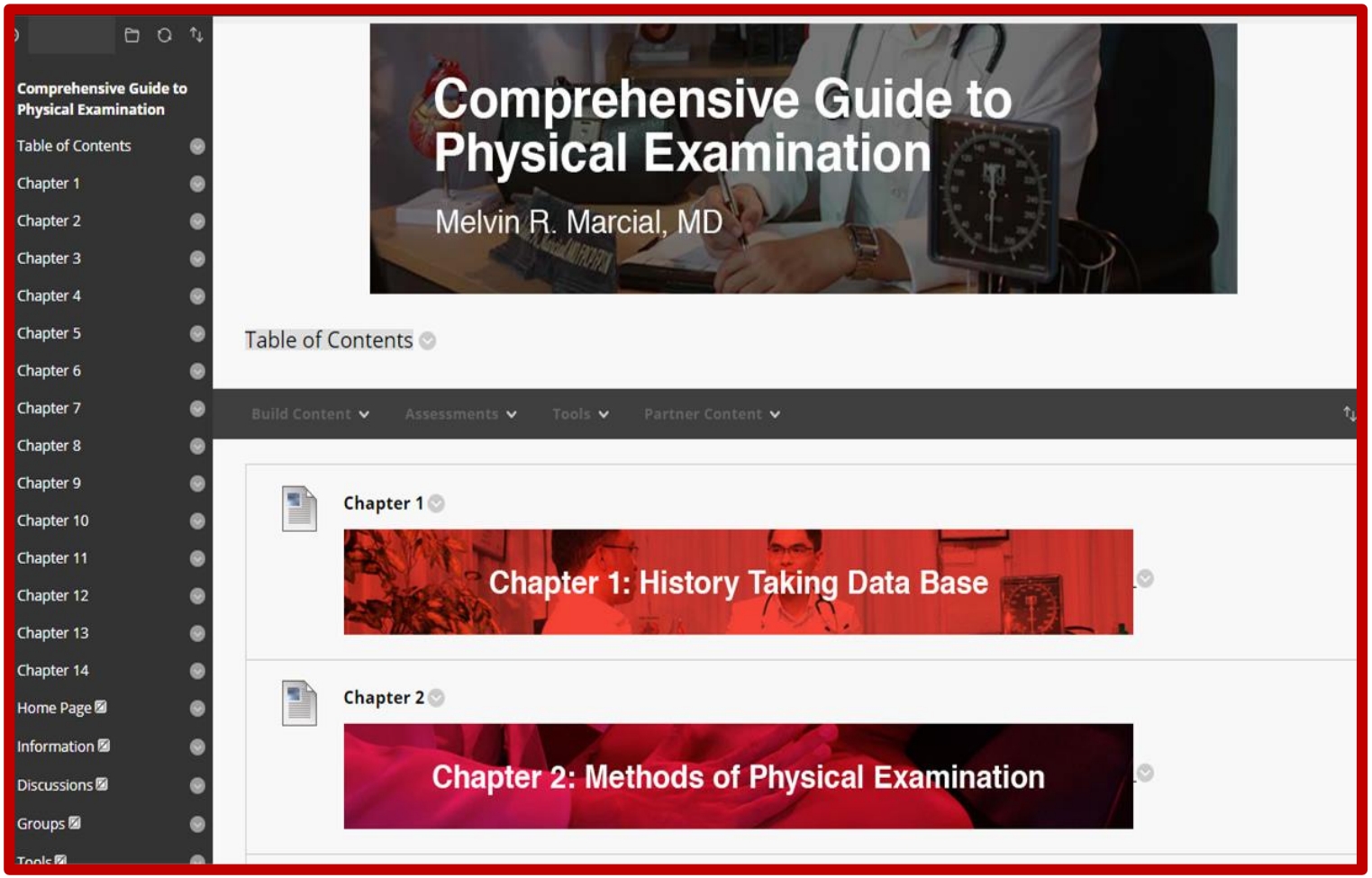
Think

Dig Deeper

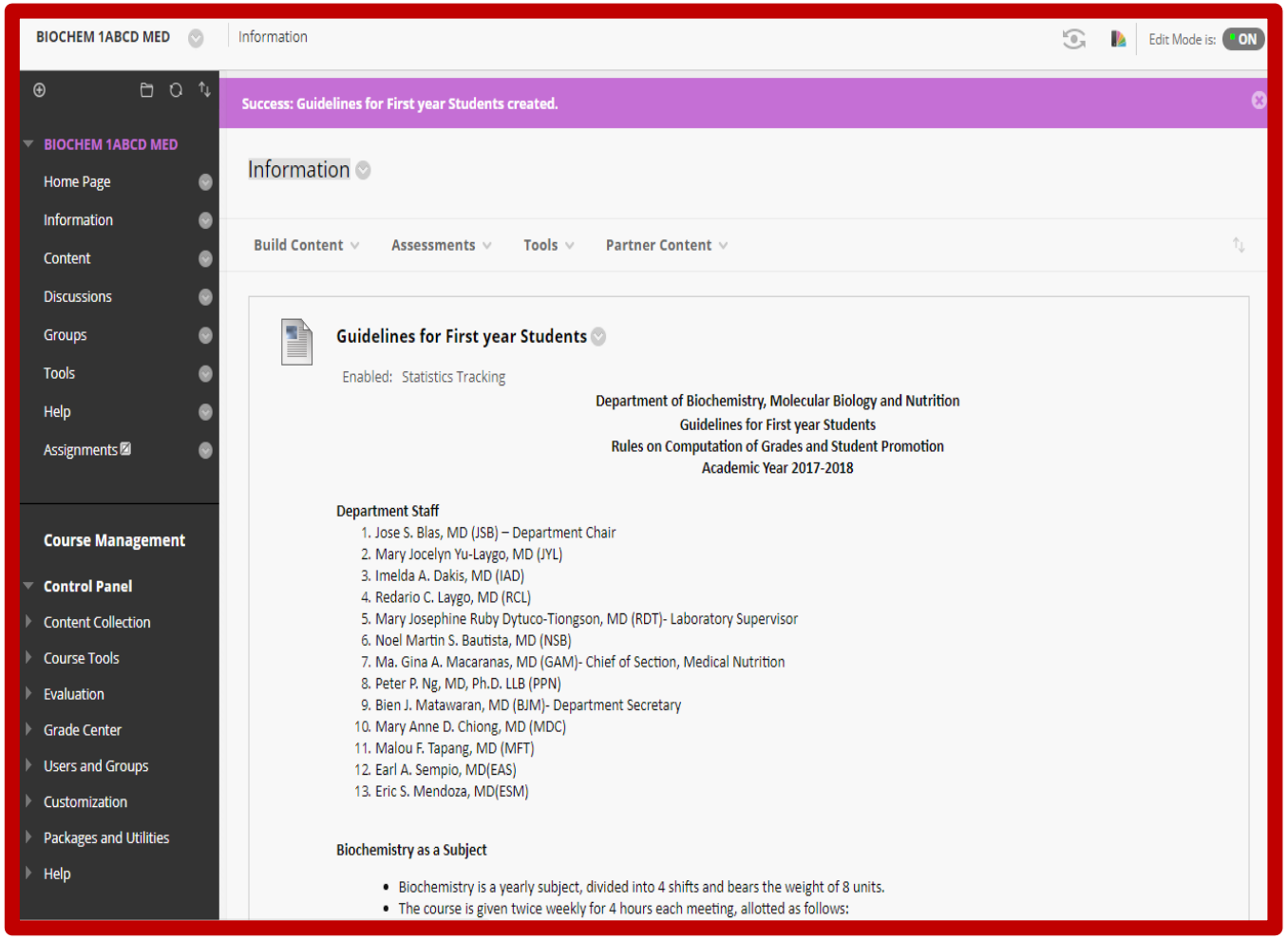
Discuss

TED ED

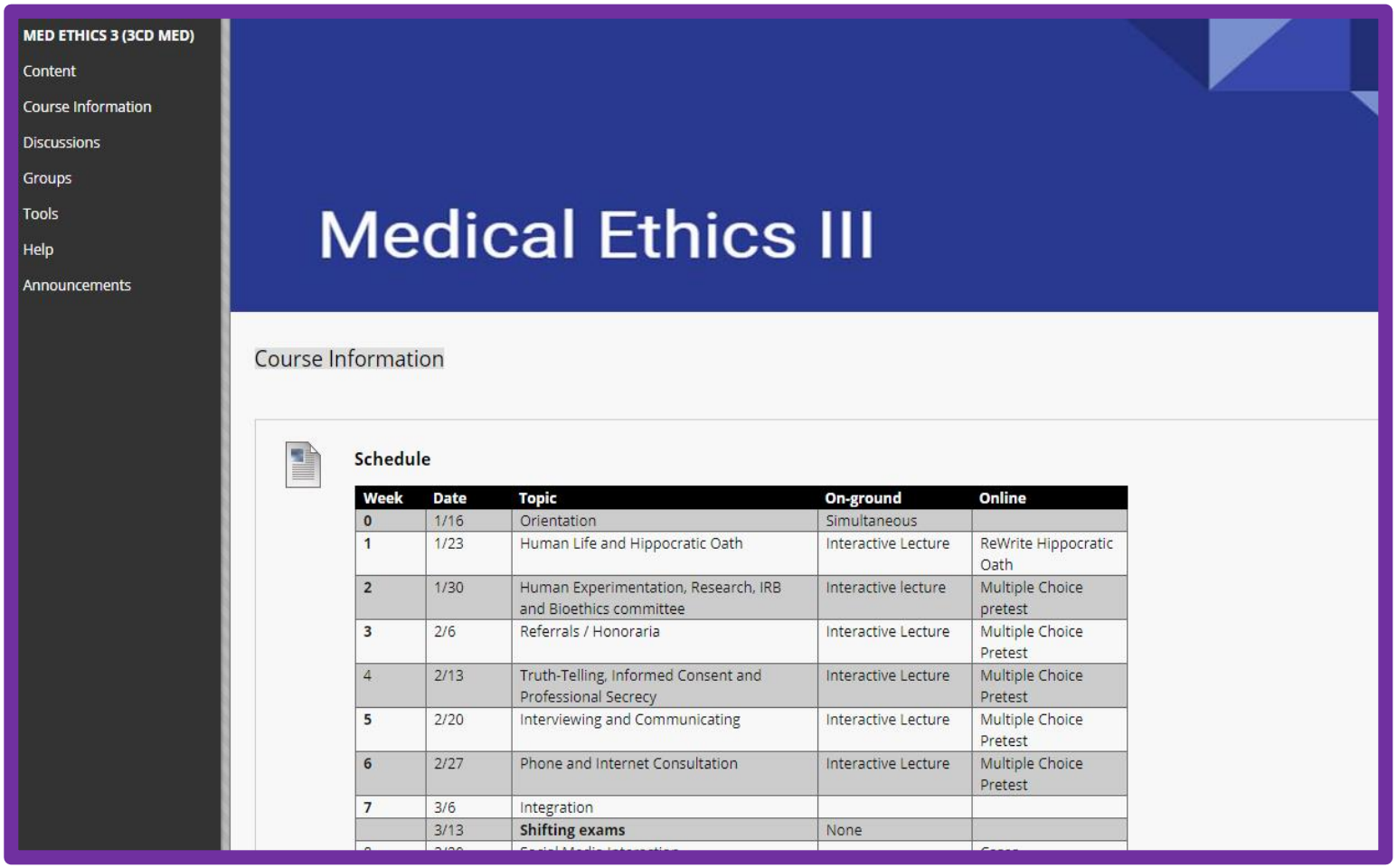
COMPREHENSIVE GUIDE TO PE: ONLINE



USE OF ONLINE TOOLS FOR TRADITIONAL METHODS



WEB PRESENCE TO WEB-CENTRIC



MED ETHICS 3 (3CD MED)

Content

Course Information

Discussions

Groups

Tools

Help

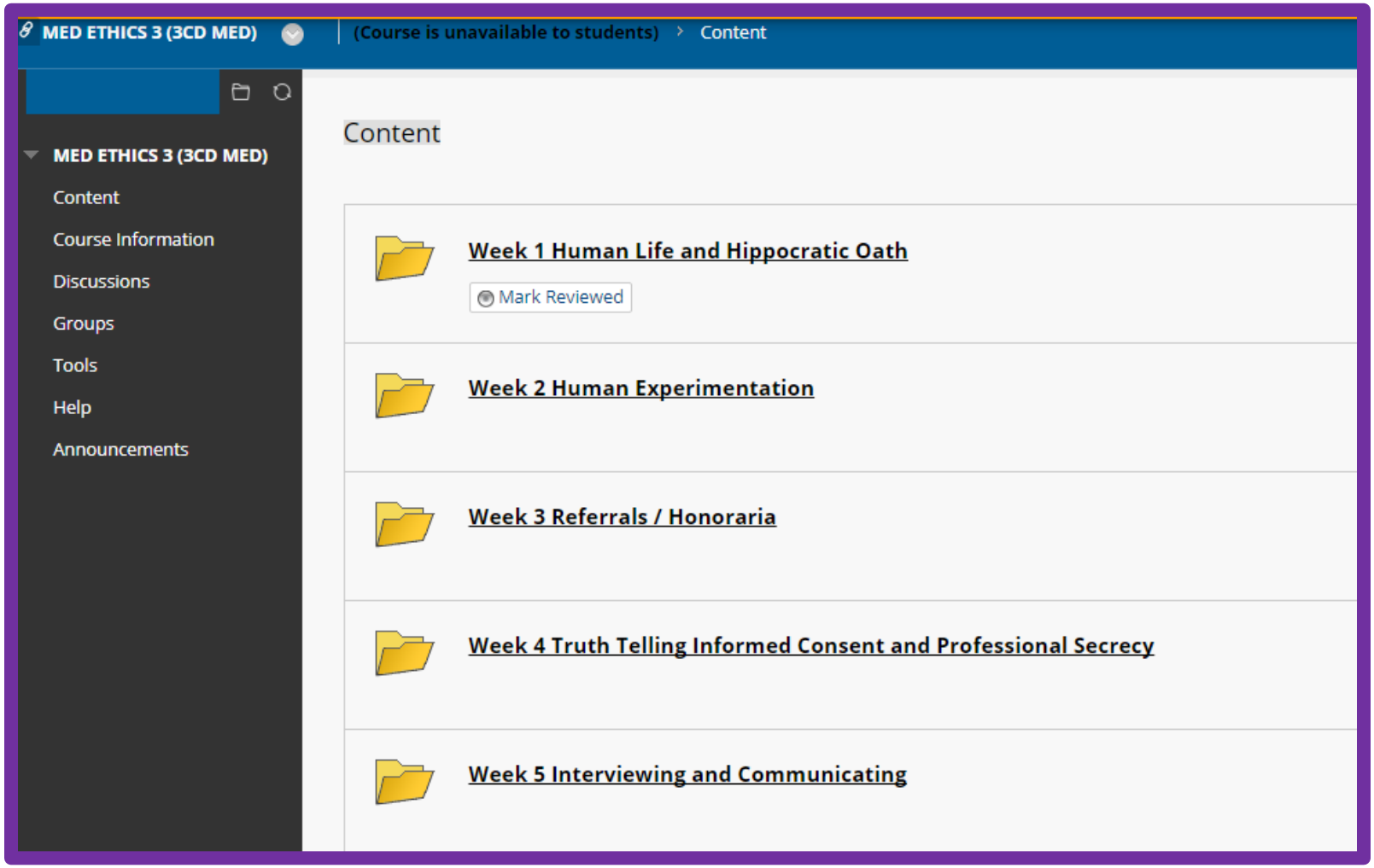
Announcements

Medical Ethics III

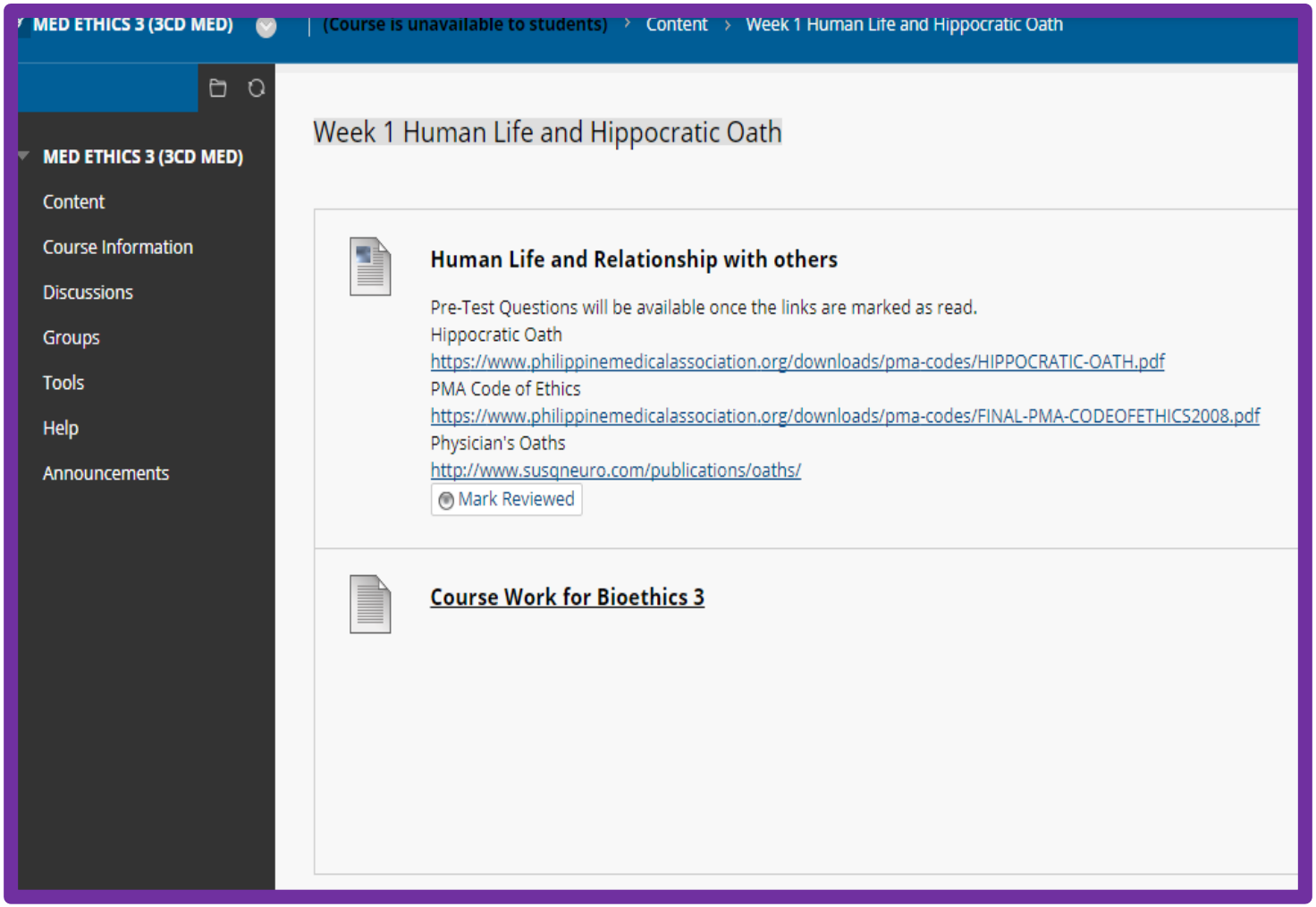
Course Information

Schedule

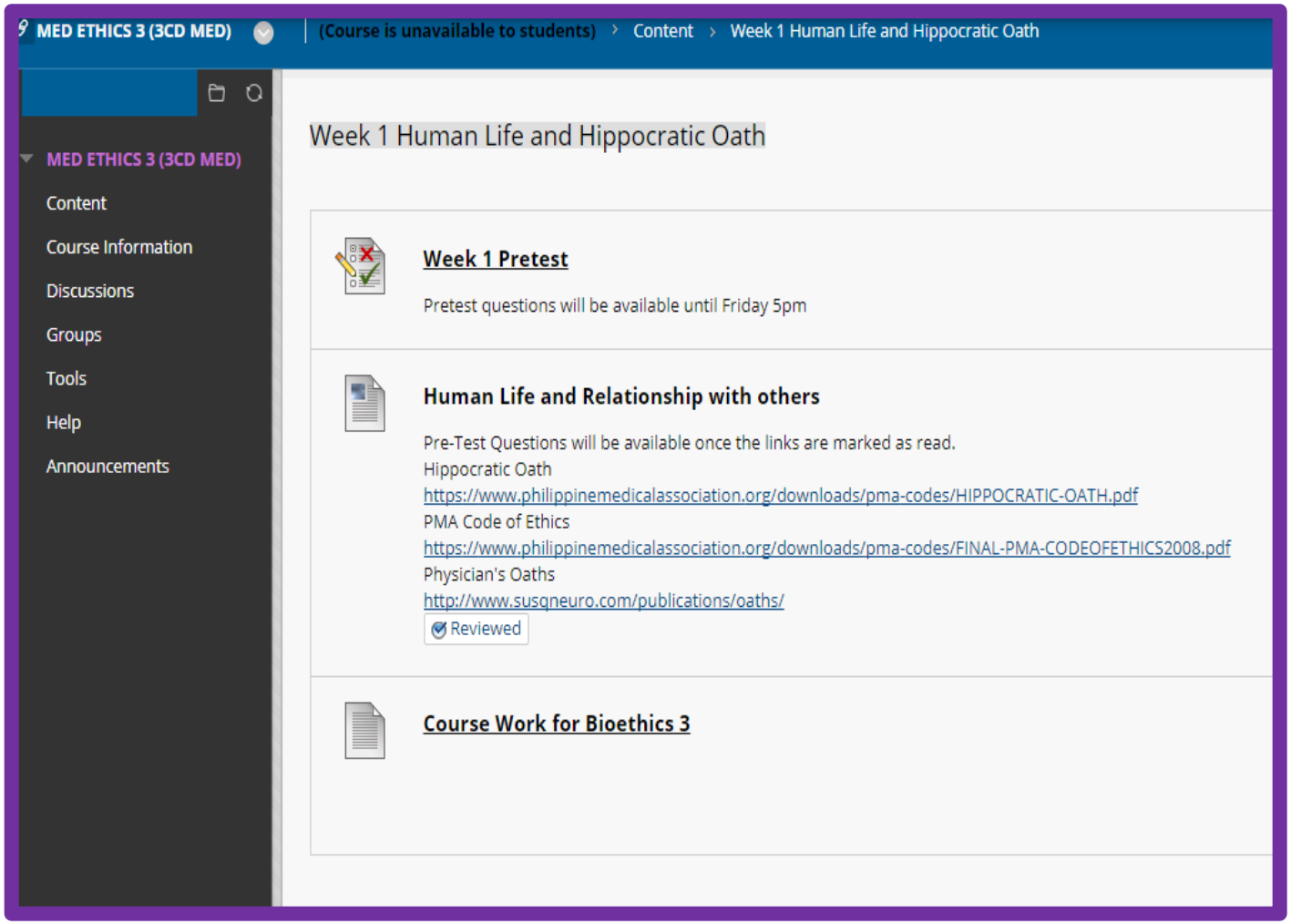
Week	Date	Topic	On-ground	Online
0	1/16	Orientation	Simultaneous	
1	1/23	Human Life and Hippocratic Oath	Interactive Lecture	ReWrite Hippocratic Oath
2	1/30	Human Experimentation, Research, IRB and Bioethics committee	Interactive lecture	Multiple Choice pretest
3	2/6	Referrals / Honoraria	Interactive Lecture	Multiple Choice Pretest
4	2/13	Truth-Telling, Informed Consent and Professional Secrecy	Interactive Lecture	Multiple Choice Pretest
5	2/20	Interviewing and Communicating	Interactive Lecture	Multiple Choice Pretest
6	2/27	Phone and Internet Consultation	Interactive Lecture	Multiple Choice Pretest
7	3/6	Integration		
	3/13	**Shifting exams**	None	


MED ETHICS 3 (3CD MED)
(Course is unavailable to students)
Content
MED ETHICS 3 (3CD MED)
Content
Course Information
Discussions
Groups
Tools
Help
Announcements
Content
Week 1 Human Life and Hippocratic Oath
Mark Reviewed
Week 2 Human Experimentation
Week 3 Referrals / Honoraria
Week 4 Truth Telling Informed Consent and Professional Secrecy
Week 5 Interviewing and Communicating

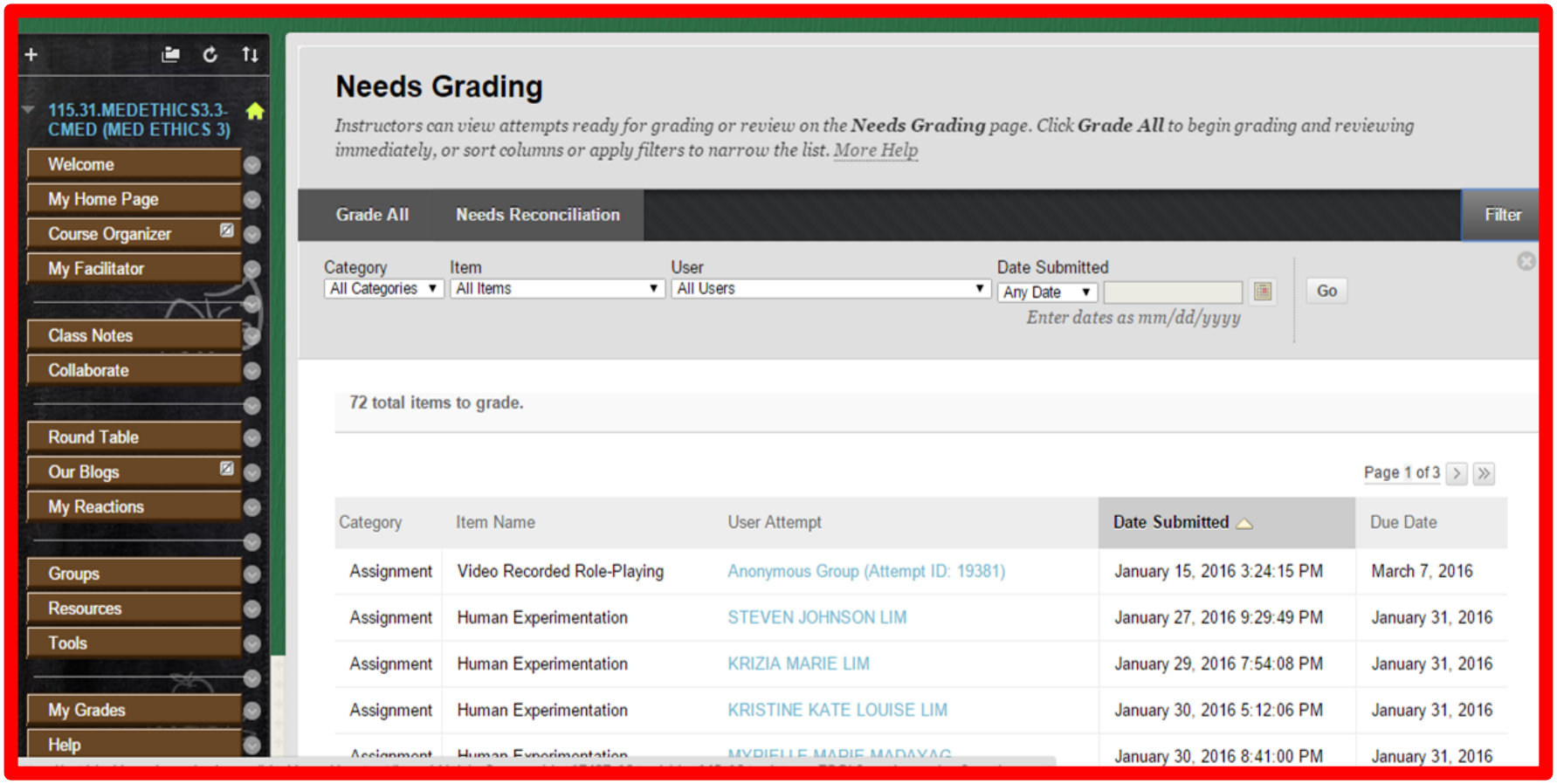
ADAPTIVE RELEASE

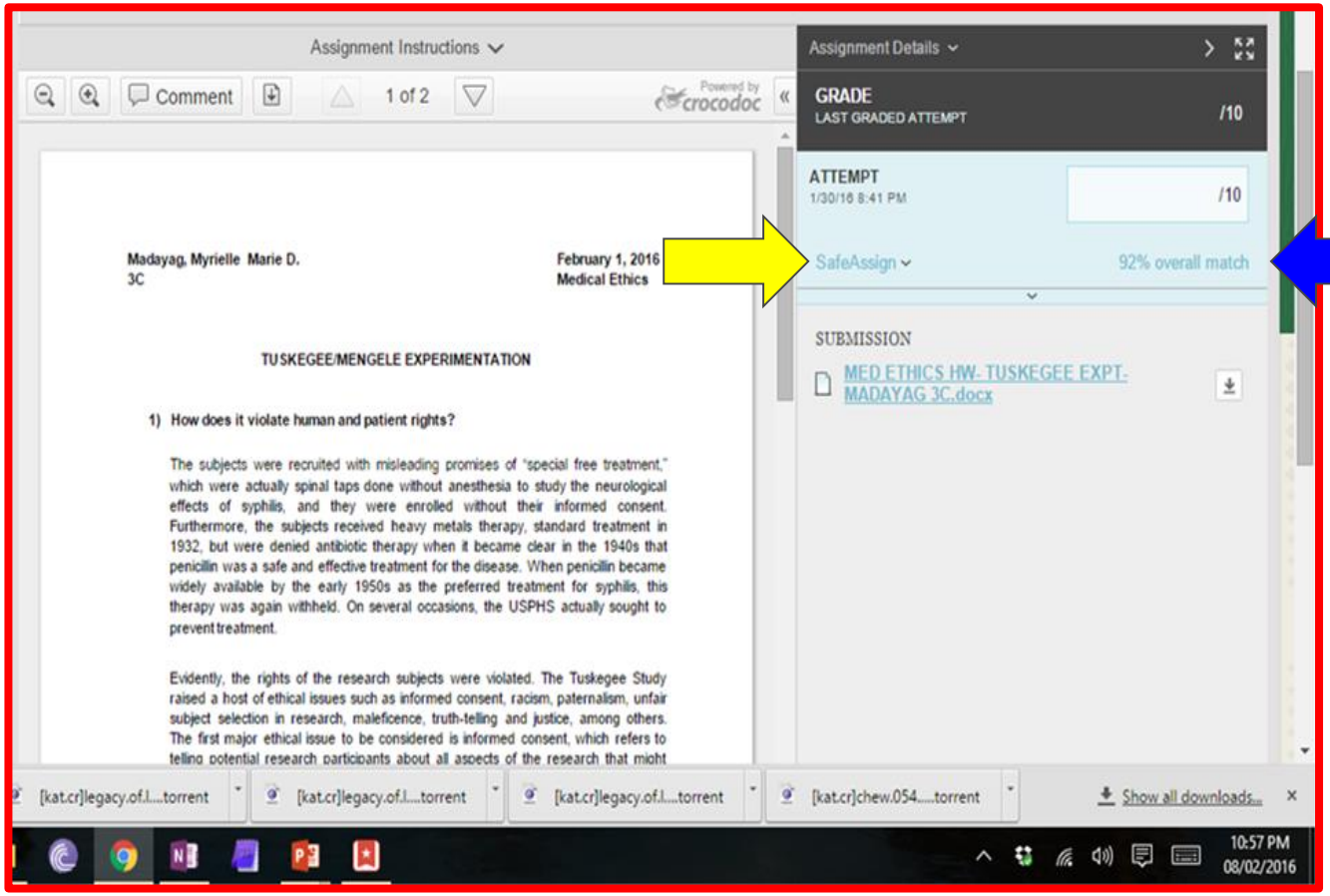


ADAPTIVE RELEASE



LEARNING MANAGEMENT SYSTEM




Assignment Instructions
Comment
1 of 2
Powered by crocodoc
Assignment Details
GRADE
LAST GRADED ATTEMPT
/10
ATTEMPT
1/30/16 8:41 PM
/10
SafeAssign
92% overall match
SUBMISSION
MED ETHICS HW- TUSKEGEE EXPT-MADAYAG 3C.docx
Madayag, Myrielle Marie D.
3C
February 1, 2016
Medical Ethics
TUSKEGEE/MENGELE EXPERIMENTATION
1) How does it violate human and patient rights?
The subjects were recruited with misleading promises of "special free treatment," which were actually spinal taps done without anesthesia to study the neurological effects of syphilis, and they were enrolled without their informed consent. Furthermore, the subjects received heavy metals therapy, standard treatment in 1932, but were denied antibiotic therapy when it became clear in the 1940s that penicillin was a safe and effective treatment for the disease. When penicillin became widely available by the early 1950s as the preferred treatment for syphilis, this therapy was again withheld. On several occasions, the USPHS actually sought to prevent treatment.
Evidently, the rights of the research subjects were violated. The Tuskegee Study raised a host of ethical issues such as informed consent, racism, paternalism, unfair subject selection in research, maleficence, truth-telling and justice, among others. The first major ethical issue to be considered is informed consent, which refers to
[kat.cr]legacy.of.l....torrent
[kat.cr]legacy.of.l....torrent
[kat.cr]legacy.of.l....torrent
[kat.cr]chew.054....torrent
Show all downloads...
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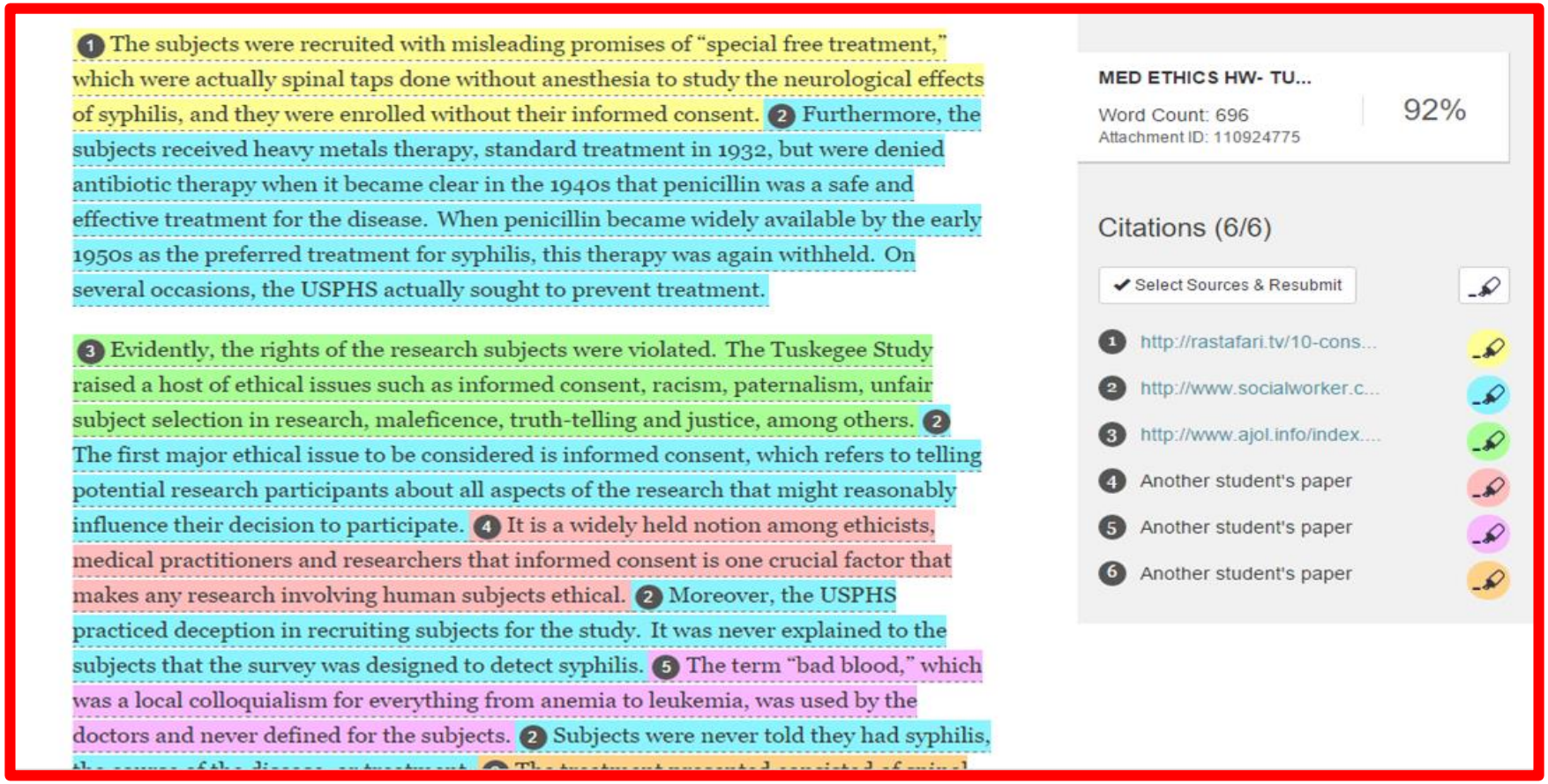
08/02/2016

SAFE ASSIGN

SAFE ASSIGN



1 The subjects were recruited with misleading promises of "special free treatment," which were actually spinal taps done without anesthesia to study the neurological effects of syphilis, and they were enrolled without their informed consent. 2 Furthermore, the subjects received heavy metals therapy, standard treatment in 1932, but were denied antibiotic therapy when it became clear in the 1940s that penicillin was a safe and effective treatment for the disease. When penicillin became widely available by the early 1950s as the preferred treatment for syphilis, this therapy was again withheld. On several occasions, the USPHS actually sought to prevent treatment.

3 Evidently, the rights of the research subjects were violated. The Tuskegee Study raised a host of ethical issues such as informed consent, racism, paternalism, unfair subject selection in research, maleficence, truth-telling and justice, among others. 2 The first major ethical issue to be considered is informed consent, which refers to telling potential research participants about all aspects of the research that might reasonably influence their decision to participate. 4 It is a widely held notion among ethicists, medical practitioners and researchers that informed consent is one crucial factor that makes any research involving human subjects ethical. 2 Moreover, the USPHS practiced deception in recruiting subjects for the study. It was never explained to the subjects that the survey was designed to detect syphilis. 5 The term "bad blood," which was a local colloquialism for everything from anemia to leukemia, was used by the doctors and never defined for the subjects. 2 Subjects were never told they had syphilis,

MED ETHICS HW- TU...

Word Count: 696

Attachment ID: 110924775

92%

Citations (6/6)

✔ Select Sources & Resubmit

1 http://rastafari.tv/10-cons...

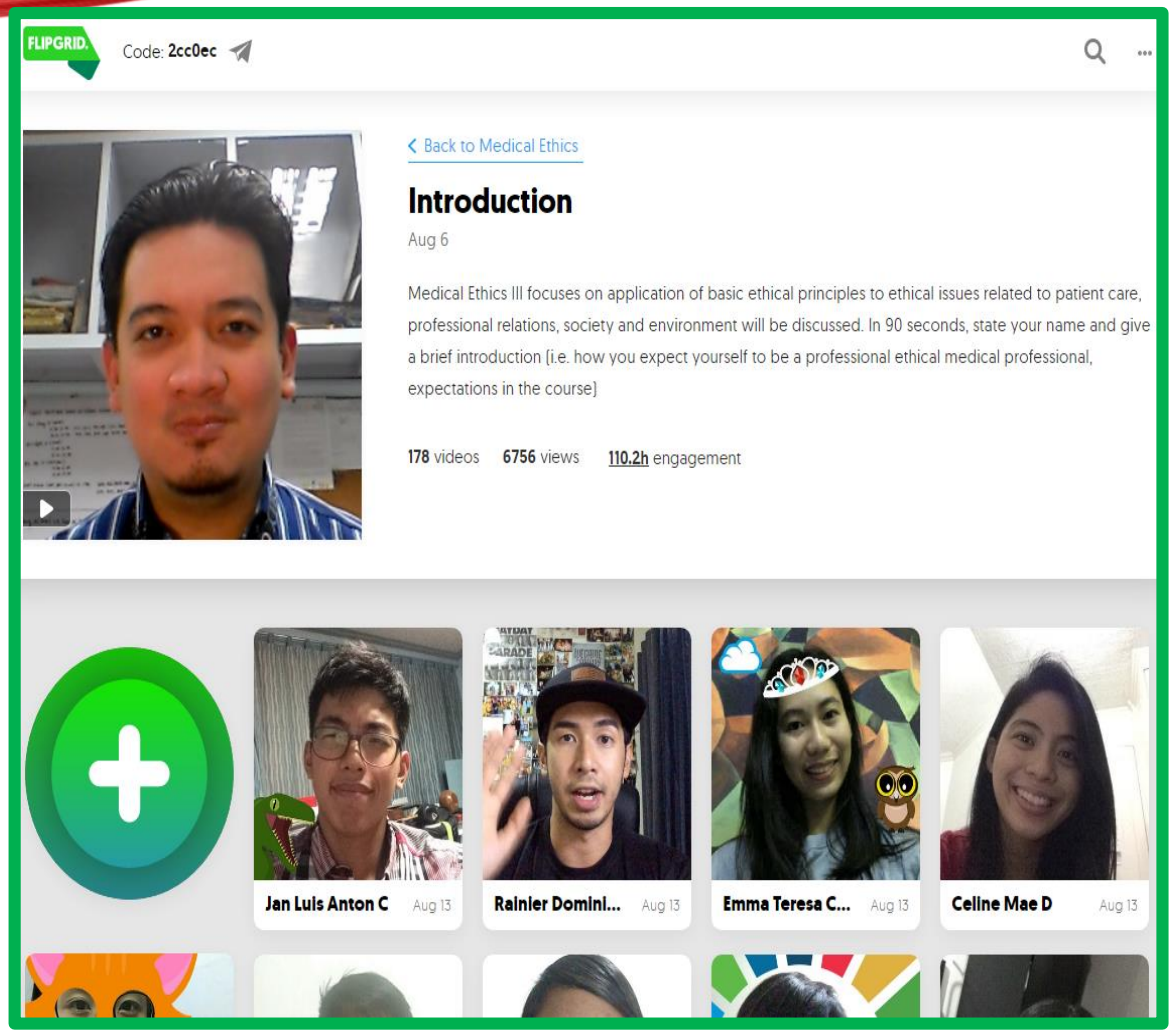
2 http://www.socialworker.c...

3 http://www.ajol.info/index....

4 Another student's paper

5 Another student's paper

6 Another student's paper

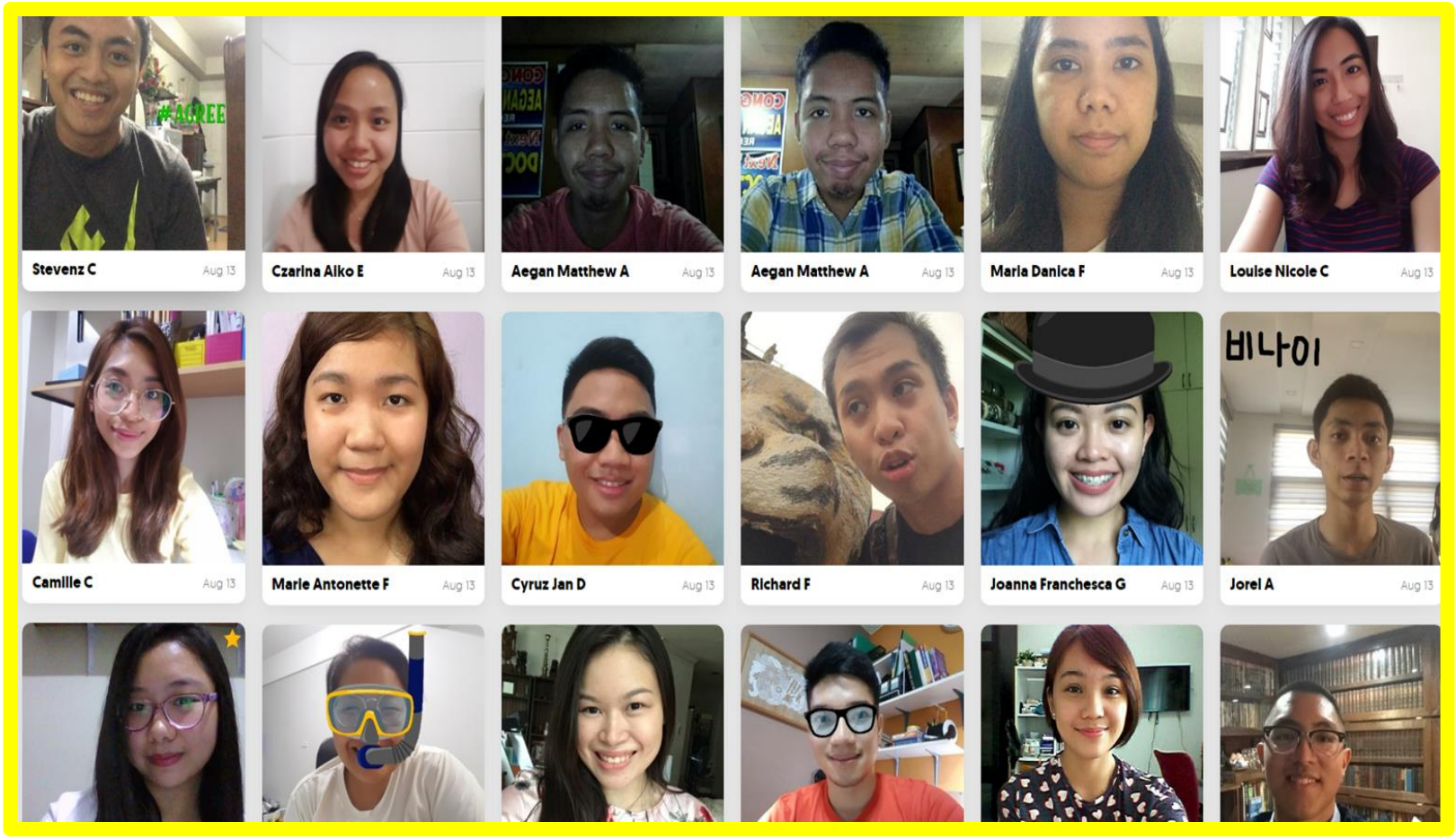


FLIPGRID

is a video response platform that allows educators to host video based discussions with students.

Educators create topic grids and students respond with recorded videos to discuss, reflect, and share via webcam, tablet or mobile device.

FLIPGRID DISCUSSIONS



The NEW ENGLAND JOURNAL of MEDICINE

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Perspective

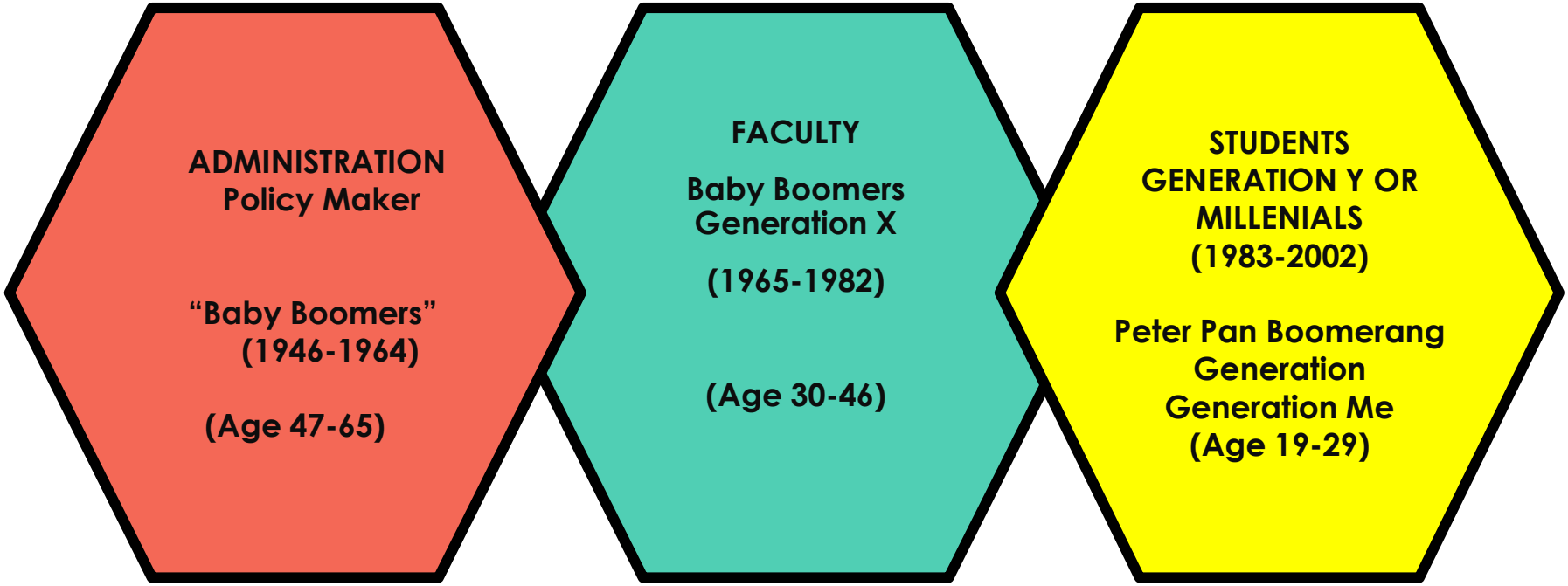
Saying Goodbye to Lectures in Medical School — Paradigm Shift or Passing Fad?

Richard M. Schwartzstein, M.D., and David H. Roberts, M.D.

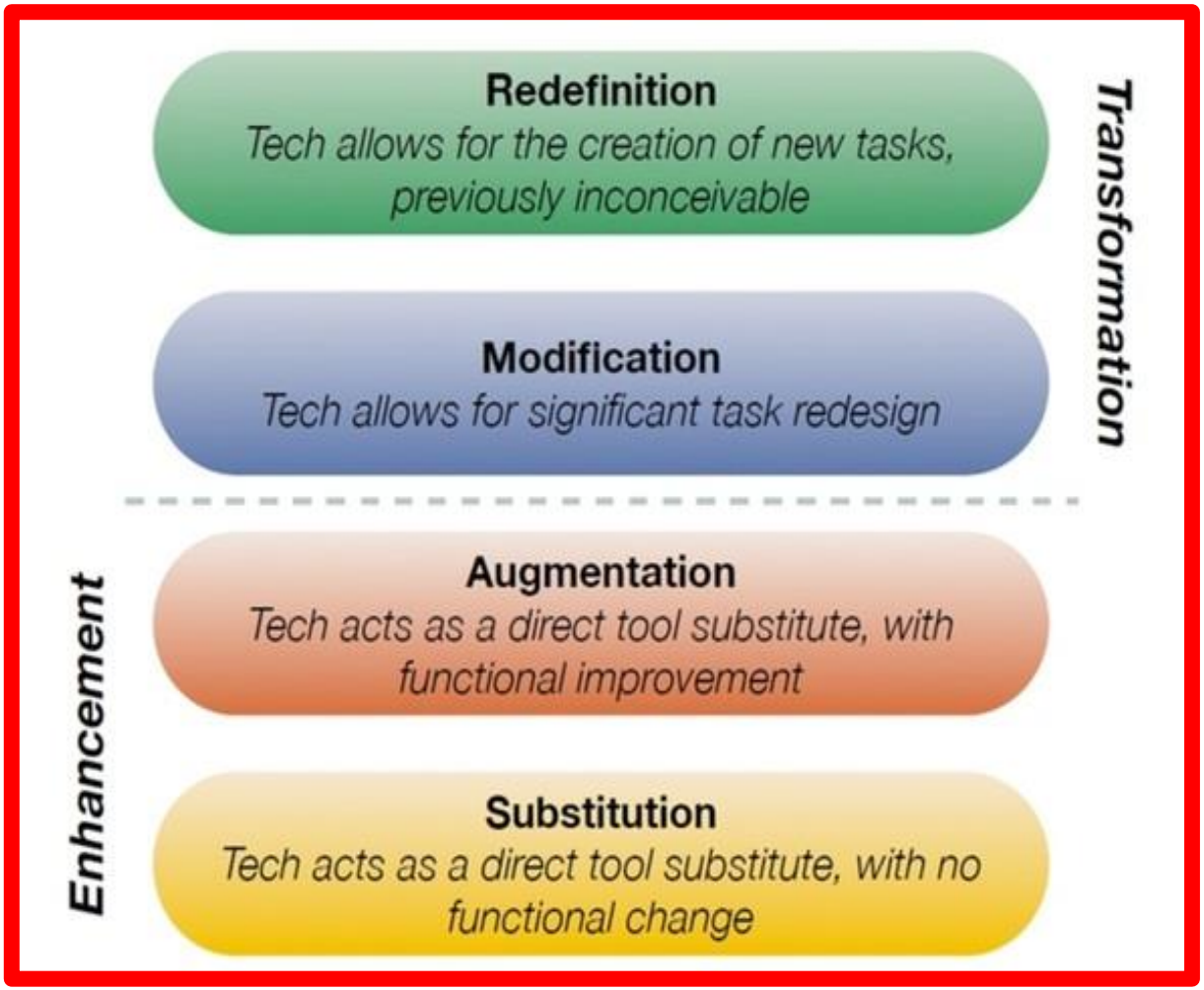
N Engl J Med 2017; 377:605-607 | August 17, 2017 | DOI: 10.1056/NEJMp1706474

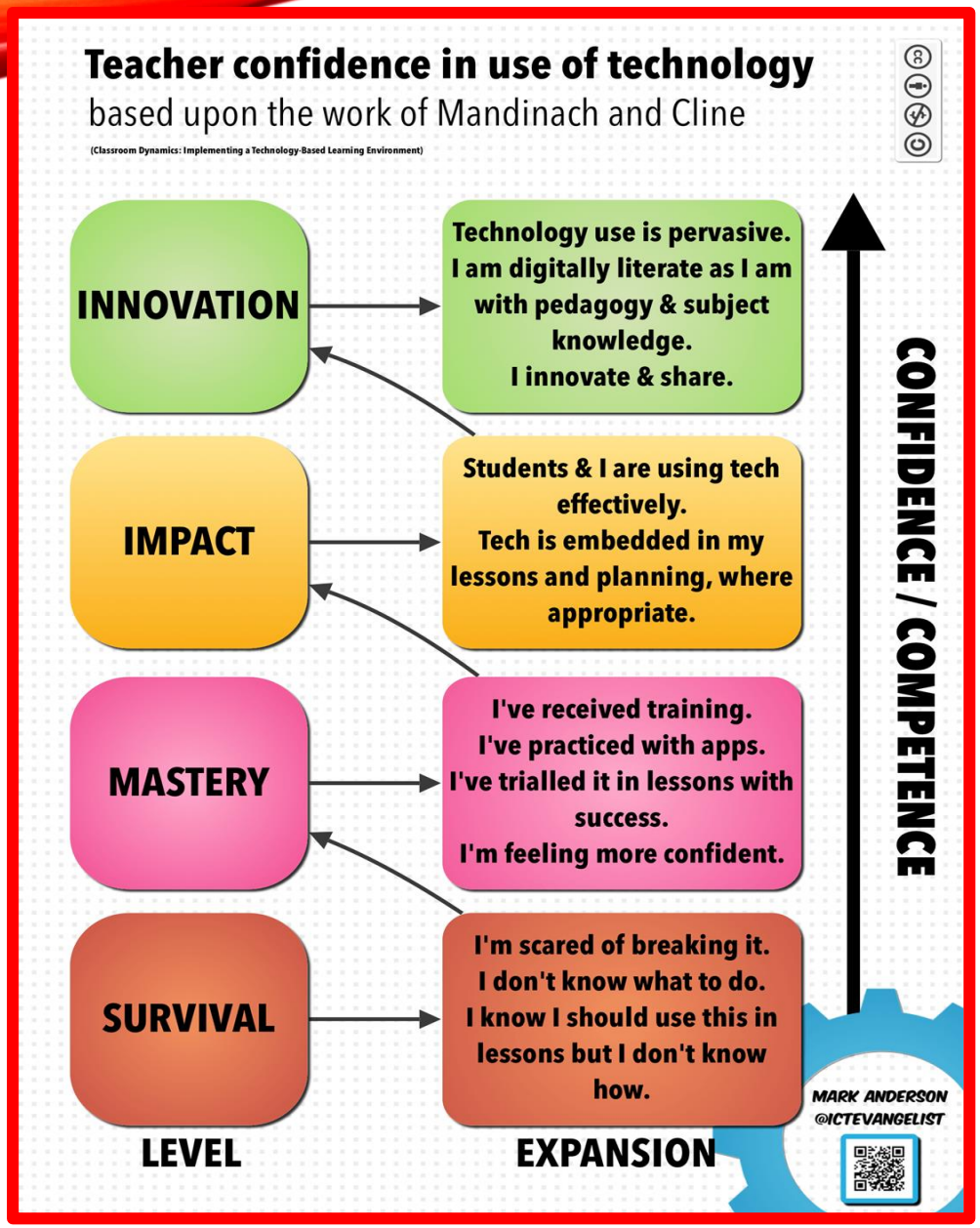
CHALLENGES IN ADOPTING TECHNOLOGY

GENERATION GAP



SAMR MODEL


Redefinition
Tech allows for the creation of new tasks, previously inconceivable
Modification
Tech allows for significant task redesign
Augmentation
Tech acts as a direct tool substitute, with functional improvement
Substitution
Tech acts as a direct tool substitute, with no functional change
Transformation
Enhancement

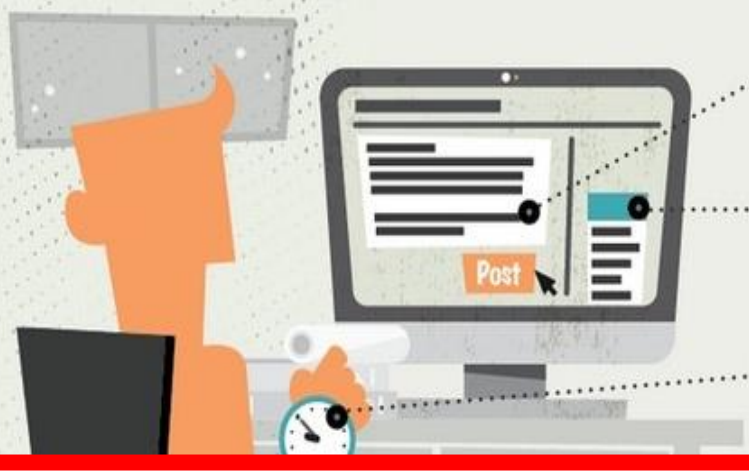

Teacher confidence in use of technology
based upon the work of Mandinach and Cline
(Classroom Dynamics: Implementing a Technology-Based Learning Environment)
INNOVATION
Technology use is pervasive.
I am digitally literate as I am with pedagogy & subject knowledge.
I innovate & share.
IMPACT
Students & I are using tech effectively.
Tech is embedded in my lessons and planning, where appropriate.
MASTERY
I've received training.
I've practiced with apps.
I've trialled it in lessons with success.
I'm feeling more confident.
SURVIVAL
I'm scared of breaking it.
I don't know what to do.
I know I should use this in lessons but I don't know how.
LEVEL
EXPANSION
CONFIDENCE / COMPETENCE
MARK ANDERSON
@ICTEVANGELIST

WHAT IS e-LEARNING?

E-learning is an approach to administering education and training through the use of modern technology. Videoconferencing, shared chat, and digital course materials make it possible for entire classes to be held in the cloud rather than in a lecture hall. Below, we explore the two common types of e-learning and how they can be implemented at organizations.

ASYNCHRONOUS e-LEARNING

Asynchronous e-learning occurs when students begin and complete a training course at different times, according to their own schedule. Common features of asynchronous e-learning include:



Message Boards

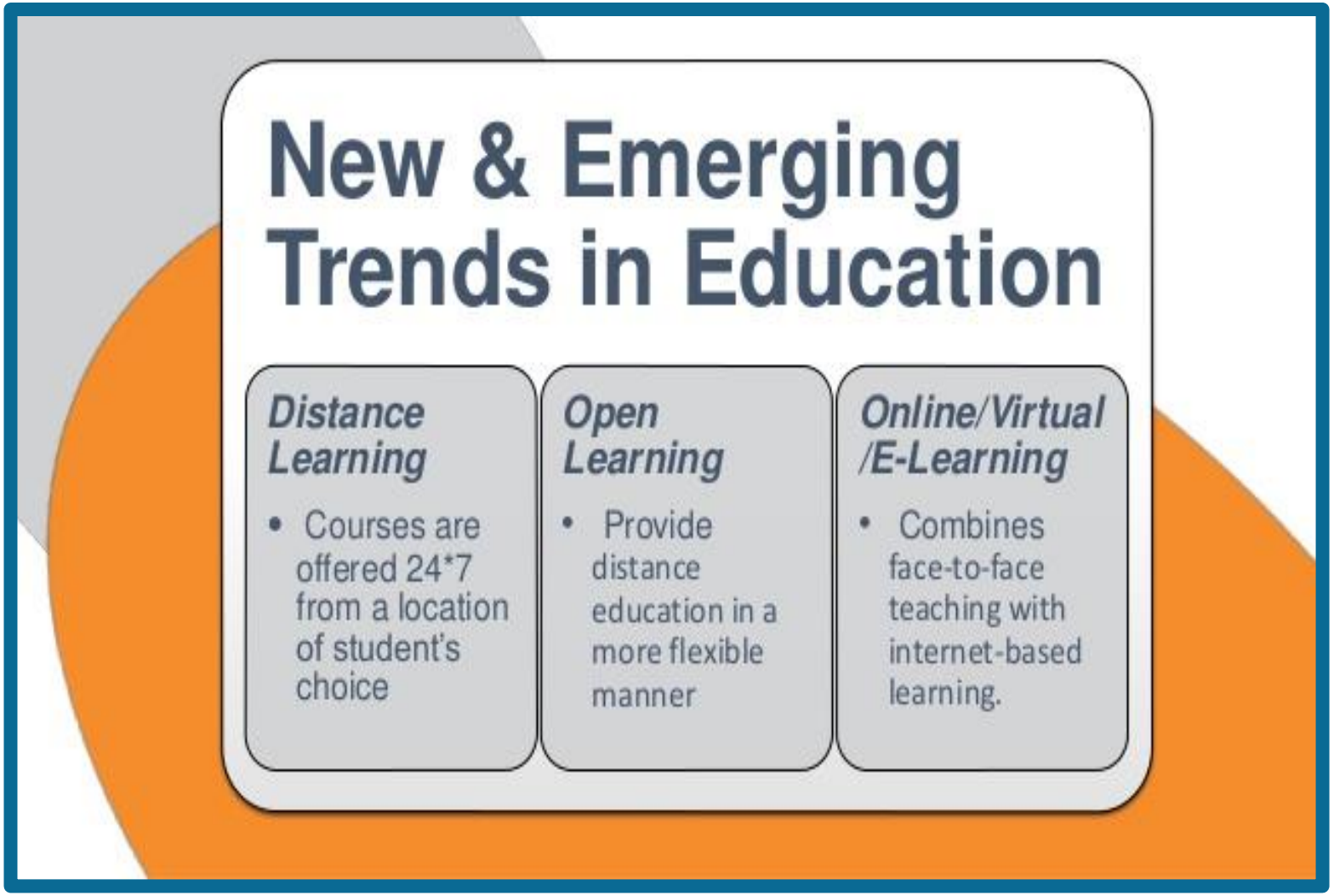
Many such courses are augmented with message boards, allowing learners to post questions and comments on a central board for other users to see.

Discussion Groups

Going one step further than message boards, discussion groups allow students in the same course to discuss the material in real time.

Self-Paced Courses

These are courses that can be completed at one's own pace. There may be assignments and


New & Emerging Trends in Education
Distance Learning
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• Provide distance education in a more flexible manner
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• Combines face-to-face teaching with internet-based learning.

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Online Medical Schools

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2 Nursing & Healthcare

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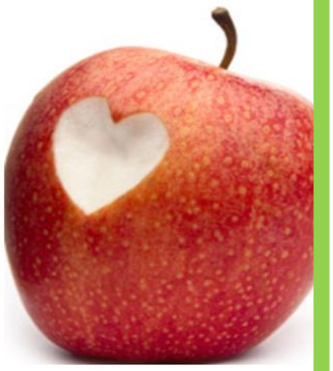
Online Medical Education

Now is a Great Time to Enroll in an Online Medical School

By visiting the unique online school page for one of the thirteen medical schools displayed below, you'll be able to obtain comprehensive info to help you make an informed decision about where to enroll. Kaplan University, the highest ranking school below, will train students to become physicians, doctors, nurses, dentists, etc. and give them an outstanding chance at finding employment, directly comparable to an on-campus school. At present, according to the US Bureau of Labor Statistics there are 274,160 people employed as physicians and surgeons alone in the US, and their average annual salary is $173,860. Anesthesiologists make on average $211,750 per year and there are about 37,450 of them employed today.

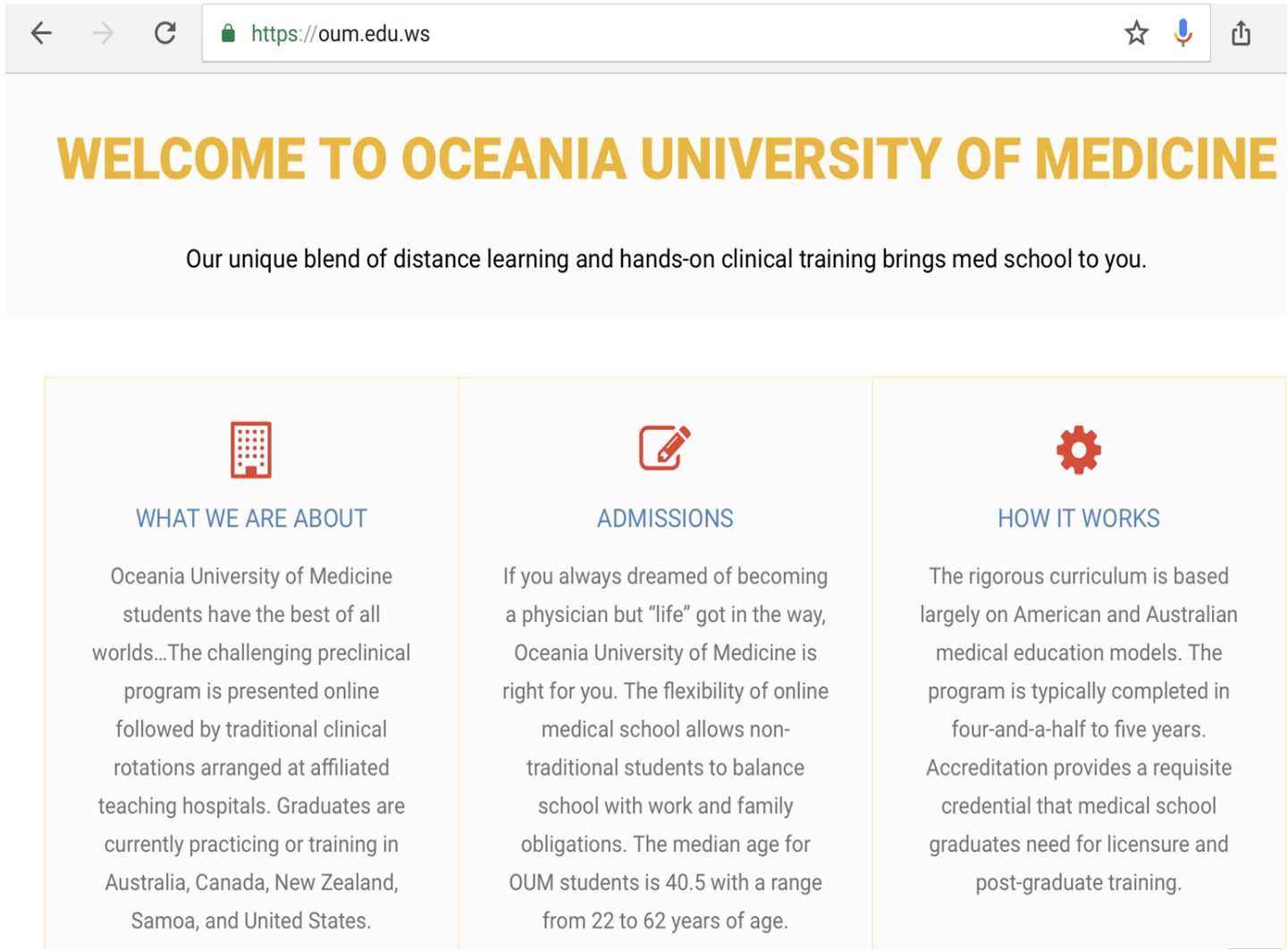


Medical Common Job Tasks

- giving shots
- taking a medical history
- transcribing audio recordings

Popular Journals & Magazines

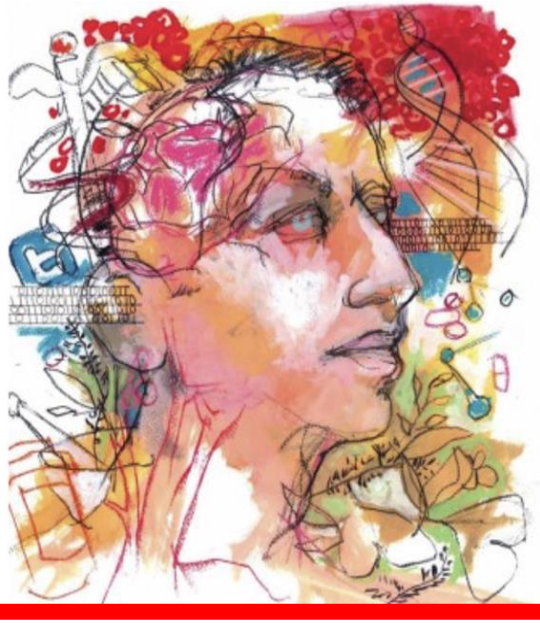
- Group Practice Journal »
- Healthcare Design »
- Clinical Examples in Radiology Newsletter »
- Cardiology Coding Alert »


https://oum.edu.ws
WELCOME TO OCEANIA UNIVERSITY OF MEDICINE
Our unique blend of distance learning and hands-on clinical training brings med school to you.
WHAT WE ARE ABOUT
Oceania University of Medicine students have the best of all worlds...The challenging preclinical program is presented online followed by traditional clinical rotations arranged at affiliated teaching hospitals. Graduates are currently practicing or training in Australia, Canada, New Zealand, Samoa, and United States.
ADMISSIONS
If you always dreamed of becoming a physician but "life" got in the way, Oceania University of Medicine is right for you. The flexibility of online medical school allows non-traditional students to balance school with work and family obligations. The median age for OUM students is 40.5 with a range from 22 to 62 years of age.
HOW IT WORKS
The rigorous curriculum is based largely on American and Australian medical education models. The program is typically completed in four-and-a-half to five years. Accreditation provides a requisite credential that medical school graduates need for licensure and post-graduate training.

The Rise of the Empowered Patient

Once marginalized, consumers are taking more control over their own treatments

By Nicholas Brody *Illustrations by Greg Betza*



The degree of trust that any industry's consumers place in its most established authorities can have profound impacts on the nature and range of the products offered, the complexity of the transactions, and, ultimately, the prevailing business models that will determine the industry's success or failure. Consider the recent global financial crisis. While many traditional financial institutions have survived this international recession, the faith that many personal investors once placed in the accepted "market authorities" —including investment house advisors and portfolio managers, many of whom encouraged consumer expectations of unfettered market growth—has been severely damaged. This erosion of trust has fueled increased regulatory scrutiny of the sector, skepticism among its core and peripheral constituencies, and a reevaluation

Consumer Health Resources:
Patients and their advocates have an unprecedented amount of information sources available to them

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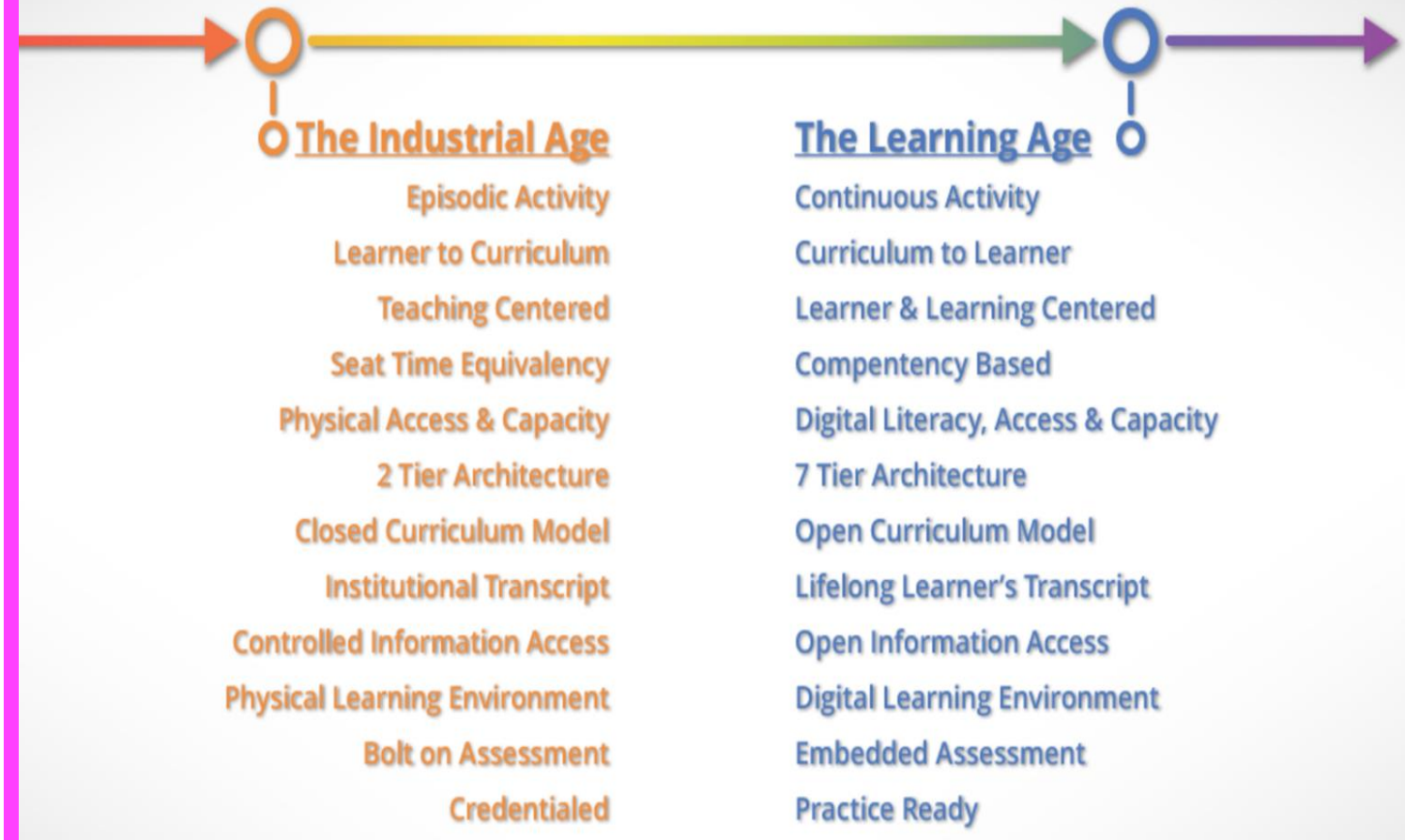

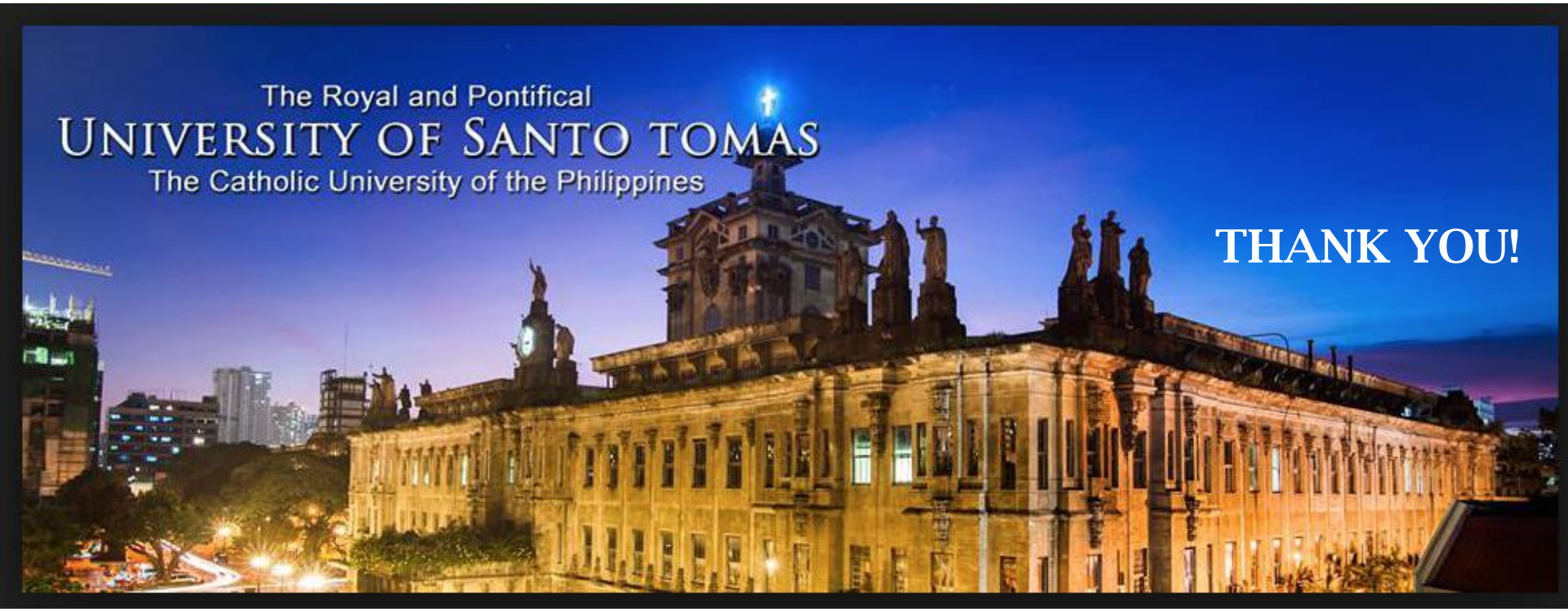
The Royal and Pontifical
UNIVERSITY OF SANTO TOMAS
The Catholic University of the Philippines
THANK YOU!