



December 3, 2020

Kimball High School Medical & Health Services Academy Night

Agenda:

Overview

Opportunities

Leadership

Classroom Activities

Field Trips

Job Shadowing

Graduates

Application

Four-year plan

Course Selection

Other Steps

Q&A



Kimball High School

ABOUT US

INFORMATION

ACADEMICS / PROGRAMS

ACTIVITIES / ATHLETICS

PUBLICATIONS

PARENT / STUDENT

MEDICAL AND HEALTH SERVICES ACADEMY



Medical and Health Services Academy (MHSA) is a small learning community within John C. Kimball High School. Our purpose is to meet the needs of our students by preparing them for career and college readiness in the health services community by providing relevant student-driven integrated learning opportunities.



Assistant Principal
Maureen Riley
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MHSA Coordinator
Joell Russell
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MHSA Counselor
David Silva
dsilva@tusd.net

Dates to F
CPR Trainin
school clos
for next year

See Special

Announce
Congratula
officers! Pl
Leadership

If you are in
opportunity
events page

Who are we...

We are educators that are passionate about guiding and preparing students for the career of their dreams.

Examples of careers in the Medical Field you will be prepared for by the end of this program:

- Surgeons
- Anesthesiology
- Orthodontist/ Dentist
- Veterinarian
- Audiologist
- Pediatrics
- Genetics
- Nursing
- Clinical Nurse Specialist
- Dental Assistant/Hygienist
- Physician Assistants
- Surgeon Assistant
- Radiologist
- Physical Therapy
- Dietician/Nutrition
- EMT
- Pharmaceutical

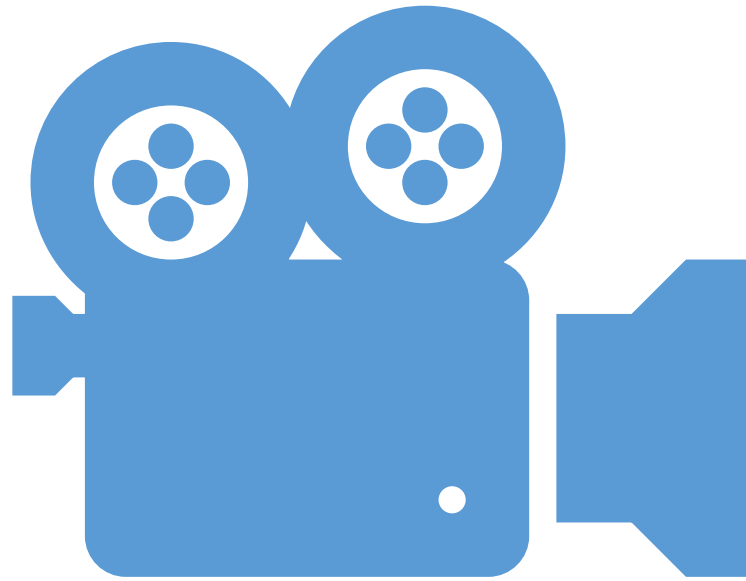


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National Student Nurses Day



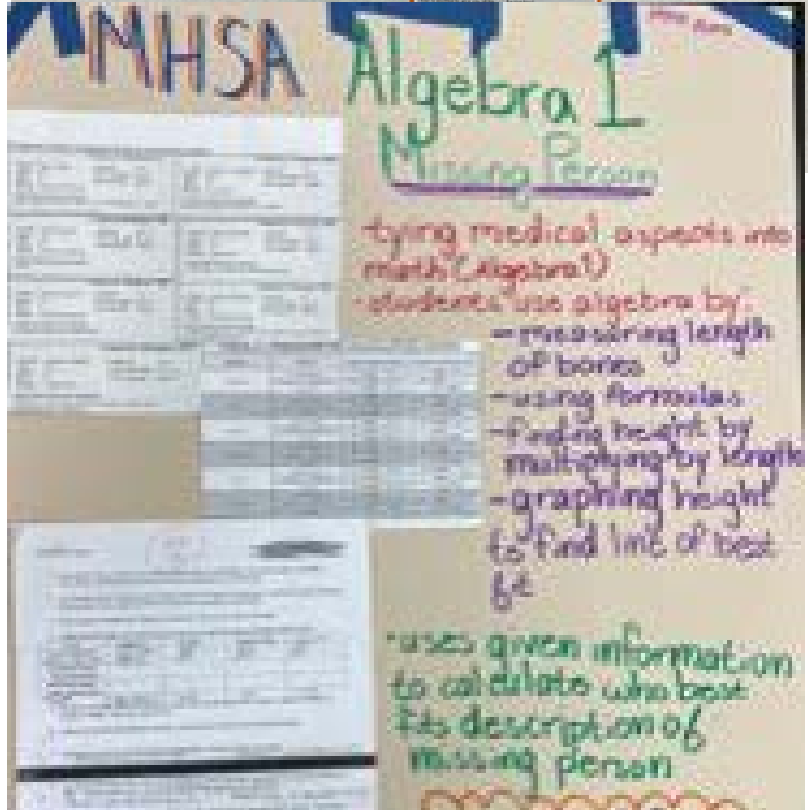


Meet Our MHSA Leadership Officers

Student Video MHSA Leadership Club

–

<https://www.youtube.com/watch?v=Gkt86tZgsoQ&feature=youtu.be>




FAST FOOD NATION

McDonald's

Ray Kroc's Story

Who is Ray Kroc?

- Was born on October 5, 1902 in Oak Park, Illinois.
- American businessman who founded McDonald's at age 52.
- Gained exclusive marketing rights to Milwaukee.
- One day, Kroc was fascinated by service at a small restaurant and wanted to be part of the business.
- Once meeting the McDonald brothers, Kroc was given rights to sell the McDonalds method.



The Food

- Very affordable
- Cheap prices bring many consumers
- At most takes ten minutes to prepare.

McDonald's Popularity

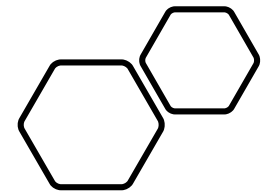
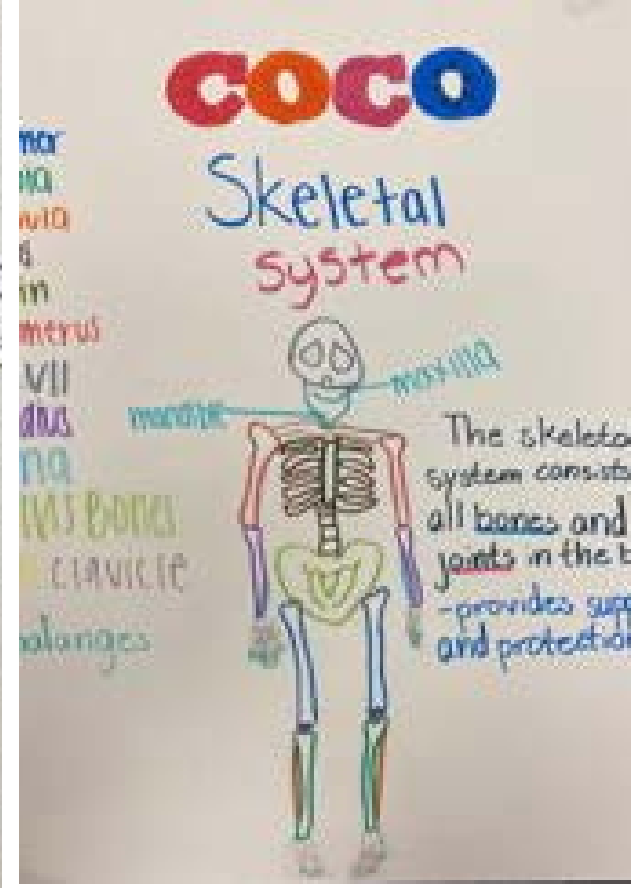
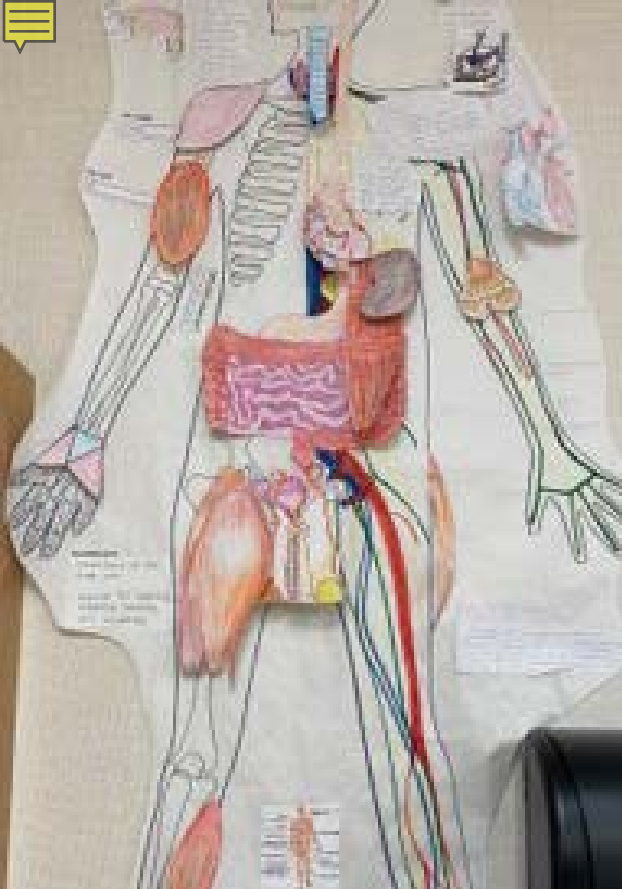
- First restaurant opened in Des Plaines, Illinois on April 15, 1955.
- McDonald's is one of the

The Job

- Hires one million workers annually in the U.S.
- Employees receive an hourly

Various Projects throughout our courses lead to practical application of what students learn.

English, Math, Economics, History



Health Concepts, Medical PE, Medical Terminology, Human Physiology

BONE DENSITY & BRIDGE ENGINEERING

Introduction

Bone is a living tissue that constantly remodels itself. The process of bone remodeling involves the removal of old bone (resorption) and the formation of new bone (formation). The balance between these two processes determines bone density.

Factors Affecting Bone Density

- Age: Bone density decreases as age increases.
- Gender: Women are more prone to osteoporosis than men.
- Genetics: Bone density is partially inherited.
- Lifestyle: Diet, exercise, and smoking habits affect bone density.
- Medications: Certain drugs can lead to bone loss.

Measurement of Bone Density

Bone density is measured using techniques such as Dual Energy X-ray Absorptiometry (DEXA). The results are expressed as T-scores, which compare an individual's bone density to the average of a healthy young adult.

Conclusion

Understanding bone density is crucial for assessing the risk of fractures and for developing strategies to maintain or improve bone health.

Bridge Engineering

A bridge is a structure that spans a physical obstacle, such as a body of water, a road, or a railway track, to provide a passage for people, vehicles, or goods.

Types of Bridges

- Beam Bridge: A simple bridge with a horizontal beam supported by piers.
- Truss Bridge: A bridge with a framework of triangles that distribute the load.
- Arch Bridge: A bridge with a curved arch that supports the weight.
- Cable-Stayed Bridge: A bridge with cables that support the deck from a central tower.
- Suspension Bridge: A bridge with a main span supported by cables hanging from a tower.

Design Considerations

When designing a bridge, engineers must consider factors such as the load capacity, the span length, the materials used, and the environmental conditions.

Conclusion

Bridge engineering is a complex field that combines structural analysis, materials science, and civil engineering to create safe and durable structures.

The diagram illustrates the skeletal structure of a human leg, focusing on the hip and knee joints. Key components labeled include the Proximal femur, Distal femur, Hip joint, Femoral head, Femoral neck, Femoral shaft, Femoral condyle, Tibial plateau, Tibial shaft, Tibial condyle, and Knee joint. A hip replacement is shown, with labels for the Proximal femur, Distal femur, Hip joint, Femoral head, Femoral neck, Femoral shaft, Femoral condyle, Tibial plateau, Tibial shaft, Tibial condyle, and Knee joint.

[illegible][illegible]

MRI

MRI uses radio waves and magnetic fields to create images of the inside of the body. It is used to diagnose many diseases and injuries.

How does MRI work?

1. The patient lies in a scanner. 2. The scanner sends out radio waves. 3. The patient's body absorbs the waves. 4. The scanner receives the waves back. 5. The scanner processes the waves to create an image.

Advantages of MRI

- It is non-invasive.
- It can show soft tissue.
- It can show the internal structure of the body.

Disadvantages of MRI

- It is expensive.
- It takes a long time.
- It can be noisy.

Conclusion

MRI is a very useful tool for diagnosing many diseases and injuries. It is a non-invasive procedure that can show soft tissue and the internal structure of the body.

HEART RATE PROJECT

Resting

Mean - 75.95
Median - 78
Mode - 87
Range - 166
IQR - 21
Outliers - 33
Standard Deviation - 21.32

Active

Mean - 115.5
Median - 115.5
Mode - 76
Range - 79
IQR - 39
Outliers - NONE
Standard Deviation - 21.32

Active

Resting

Active

Score	Count
80-89	7
90-99	5
100-109	7
110-119	2
120-129	1
130-139	1

Resting

Score	Count
30-39	1
40-49	0
50-59	2
60-69	3
70-79	6
80-89	9
90-99	1

Resting

Active



Field Trips

Job Shadowing Opportunity

What is it?

- A chance to shadow a medical professional

When is it?

- Junior/Senior Year
- One period/2 days a week for 2 weeks
- When we return to having students on campus

Why participate?

- Great experience/looks good on college applications
- Good way to learn about different health professions
- Possible job opportunities





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2019-2020 Participants



Graduate Highlights



- **NEXT STEP**
 - Earn a Biological Sciences, B.S. in pursuit of becoming a Doctor.
- **Extra Curricular Activities**
 - Rotary Interact Club
 - Volunteer at Astoria Gardens



- **NEXT STEP**
 - UC Berkley: BS – Biology & Business
 - In pursuit of a career as a Medical Professional.



- **Special Recognitions**
 - State Seal of Biliteracy
- **Extra Curricular Activities**
 - Secretary and Co-founder of Rotary Interact Club
 - Volunteering at Football Games snack shack, Shrimp Feeds & Astoria Gardens



- **Favorite Moments in the Academy**
 - “The Field Trip to Santa Clara University and Mr. Wall wearing a blue wig and acting like he wasn’t wearing a blue wig.”

- **NEXT STEP**
 - San Jose State University: BS - Nursing
 - In pursuit of a career as a Labor and Delivery Nurse

- **Special Recognitions**
 - Biliteracy Seal
 - Jaguar Project
 - KHS Leadership

- **Favorite Moments in the Academy**
 - “Field trip to UOP.”

- **NEXT STEP**
 - San Francisco State University: BS - Chemistry
 - In pursuit of a career as in the Medical Field

- **Special Recognitions**
 - Athletic Scholar Award

- **Extra Curricular Activities**
 - Jaguar Project
 - MHSA Leadership Treasurer (1 year)
 - MHSA Leadership President (2years)
 - Volunteering at MHSA Open Houses and Freshman Orientations

- **Job Shadowed**
 - Comfort Care Dental - “Really inspired me to become a dentist.”



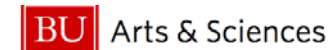
- **NEXT STEP**
 - Go to college to earn a BA and MS in pursuit of becoming a Nurse.

- **Extra Curricular Activities**
 - “I volunteered at the local mosque teaching kids about religion and how to read and write Arabic.”

- **Job Shadowed**
 - Trosien Orthodontist - “it was still a great learning experience.”

- **Favorite Moments in the Academy**

- “The UOP field trip because it allowed us to explore the campus.”



- **NEXT STEP**
 - University of California, Los Angeles: BS - Pre-Human Biology
 - In pursuit of a career as a Neurosurgeon

- **Special Recognitions**
 - Seal of Biliteracy
 - AP Scholar



- **Extra Curricular Activities**
 - 4 years of; Volleyball, HOSA, CSF, NHS & Rotary Interact
 - MHSA Leadership President(Freshman), Secretary(Junior and Senior)
 - Volunteered at MHSA Ice Cream Socials, Freshman Seminars, Freshman Orientations & Freshman Icebreakers
 - Volunteer at People for Pets (200+ hours)
 - Volunteer at annual Volleyball Youth Camps



- **Job Shadowed**
 - Valley Chiropractic Mountain House
 - “It was interesting to see what other positions in the medical field do on a day-to-day basis.”

- **Favorite Moments in the Academy**
 - “I enjoyed the Forensic project we did freshman year. We got to simulate a forensic file with our classmates.”

Application
Process DUE
on or before
December 18,
2020



Medical and Health Services Academy John C. Kimball High School APPLICATION 2021-2022

- Number of Openings Available: 70
- Requirements:
 - Complete and Sign Application & Course Selection Sheet
 - Personal Statement (possible follow-up interview may be requested)
 - Transcript of Grades
 - Two Teacher References from grade 6, 7, or 8 (provide school email address)
 - Inter/Intra District Transfer (if Applicable)
 - 4 Year Commitment
- Student Expectations:
 - Maintain a C or Better in All Courses
 - If grades fall below a C, Tutoring is mandatory
 - Follow Academy Dress Code Policy
 - EXPECTED to Follow Any/All Rules Regarding Privacy and Confidentiality (HIPAA)
 - Participate in Extra Curricular MHSA Activities

MHSA Four-Year Plan

Career Plans	Student Name _____																																					
	Career Choice _____																																					
Programs	<input type="checkbox"/> Medical and Health Services Academy <input type="checkbox"/> Dual Enrollment (college courses)																																					
Requirements	John C. Kimball High School Graduation <table border="1"> <thead> <tr> <th>Credits</th> <th>Course</th> </tr> </thead> <tbody> <tr><td>40</td><td>English (4 yr)</td></tr> <tr><td>30</td><td>Social Studies (3 yr)</td></tr> <tr><td>20</td><td>Mathematics (2 yr)</td></tr> <tr><td>20</td><td>Physical Education (2 yr)</td></tr> <tr><td>30</td><td>Science (3 yr)</td></tr> <tr><td>10</td><td>Fine Art/Modern Lang (1 yr)</td></tr> <tr><td>70</td><td>Electives</td></tr> <tr><td>220</td><td>Credits needed to graduate</td></tr> </tbody> </table>	Credits	Course	40	English (4 yr)	30	Social Studies (3 yr)	20	Mathematics (2 yr)	20	Physical Education (2 yr)	30	Science (3 yr)	10	Fine Art/Modern Lang (1 yr)	70	Electives	220	Credits needed to graduate	A-G College Requirements <table border="1"> <thead> <tr> <th>Credits</th> <th>Course</th> </tr> </thead> <tbody> <tr><td colspan="2"><i>*each must be passed with a C or better</i></td></tr> <tr><td>20</td><td>a. History (2 yr)</td></tr> <tr><td>40</td><td>b. English (4 yr)</td></tr> <tr><td>30</td><td>c. Mathematics (3 yr., 4 recommended)</td></tr> <tr><td>20</td><td>d. Laboratory Science (2 yr., 3 recommended)</td></tr> <tr><td>20</td><td>e. Modern Language (2 yr., 3 recommended)</td></tr> <tr><td>10</td><td>f. Visual or Performing Arts (1 yr)</td></tr> <tr><td>10</td><td>g. College Preparatory Electives (1 yr)</td></tr> </tbody> </table>	Credits	Course	<i>*each must be passed with a C or better</i>		20	a. History (2 yr)	40	b. English (4 yr)	30	c. Mathematics (3 yr., 4 recommended)	20	d. Laboratory Science (2 yr., 3 recommended)	20	e. Modern Language (2 yr., 3 recommended)	10	f. Visual or Performing Arts (1 yr)	10	g. College Preparatory Electives (1 yr)
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9-Freshman	English 1/English 1 Pre AP MHSA	S1	S2	10-Sophomore	English 2/English 2 Pre AP MHSA	S1	S2
	Enhanced Biology MHSA				Enhanced Chemistry MHSA		
	Health Concepts MHSA				P.E. MHSA		
	Math				Math		
	P.E.				World History		
	Elective: World Language/Fine Art (Other)				Elective: Mod. Language/Fine Art (Other)		
TOTAL				TOTAL			
11-Junior	English 3 MHSA/AP English 3	S1	S2	12-Senior	English 4 MHSA/AP English 4	S1	S2
	Physics/Enhanced/AP MHSA				Human Physiology MHSA		
	Medical Terminology MHSA				MHSA Elective		
	Math				Gov/Econ or AP US Gov & Pol		
	US History				Math		
	Elective/Mod. Language (Other)				Elective (Other)		
TOTAL				TOTAL			
Testing	ACT Composite Score _____ Writing _____		SAT Critical Reading _____ Math _____ Total _____ SAT Subject Test _____				
	Post-Grad Goal		Four-Year College Direct _____ Community College _____ Technical School _____ Military _____ School to Work _____				

Course Selection Sheets

Kimball High School 2021-2022

9th Grade Course Selections MHSA

Please review the course catalog for course descriptions:
<https://kimballhigh.tracy.k12.ca.us/academics-programs/counseling>



ENGLISH – Choose 1

- ☐ 1006 – English 1 MHSA*
- ☐ 1016 – Advanced English 1 MHSA* Requires 8th grade Language Arts teacher recommendation

MATHEMATICS – Choose 1

- ☐ 2052 – Algebra 1*
- ☐ 0600 – Algebra 1 Support This a support class for Algebra 1 and counts as elective credit
- ☐ 2093 – Algebra 2*
- ☐ 2200 – Algebra 2 Advanced*
- ☐ 2103 – Geometry*

BIOLOGY

- ☐ 3164 – Enhanced Biology MHSA* Requires 8th grade Science teacher recommendation

PHYSICAL EDUCATION

- ☐ 9001 – Core 9 Physical Education

ELECTIVE OPTIONS – Choose 2 Electives and 3 Elective Alternates

- ☐ 4013 – French 1* Requires 8th grade Language Arts teacher recommendation
- ☐ 4033 – Spanish 1*
- ☐ 4053 – Spanish for Heritage Speakers* Requires 8th grade Language Arts teacher recommendation
- ☐ 6090 – Symphonic Band*
- ☐ 6103 – Orchestra*
- ☐ 6113 – Jazz Band*
- ☐ 6153 – Beginning Choir*
- ☐ 6042 – Drama 1*
- ☐ 6003 – Art & Design*
- ☐ 6025 – Multicultural Art & Design*
- ☐ 6036 – Intro to Animation*
- ☐ 6035 – Intro to Graphic Arts*
- ☐ 6061 – Speech and Debate*
- ☐ 5903 – Intro to Creative Writing*
- ☐ 6031 – Yearbook* Requires Application
- ☐ 4558 – Intro to Computer Science* Must have completed Algebra 1
- ☐ 4503 – Computer Applications
- ☐ 5501 – Consumer Home Economics*
- ☐ 6040 – Media Productions*
- ☐ 5300 – Modern Carpentry

UC/CSU approved A-G course.

Kimball High School 2021-2022



9th Grade Course Selections MHSA



Last Name (Print) First Name (Print) Student Phone Number Middle School Name

SUBJECT	COURSE #	COURSE TITLE
English		
Math		
Biology	3164	Enhanced Biology MHSA
P.E.	9001	CORE 9 PE
Elective	3440	Health Concepts
Elective: Spanish, French, Fine Art		
Elective Alternate		
Elective Alternate		
Elective Alternate		

- Be sure to list three *Elective Alternates*! If you do not list *Elective Alternates*, your counselor will choose for you, which you WILL NOT be able to change.
- I understand the additional rigor involved in Advanced/Enhanced/AP classes and that they may include summer assignments. _____ (Student Initials)
- Please return this form with student signature and parent signature **by email** to zpajarillo@tusd.net

I agree with the course selections listed above.

I UNDERSTAND THAT WHEN MY STUDENT'S SCHEDULE IS FINALIZED, IT WILL NOT BE CHANGED.

Student Signature _____ Date _____ Parent Signature _____ Date _____

DUE DATE: December 18, 2020

- KHS Website
 - MHSA Site
 - Application Information
 - MHSA 9th Grade Course Selection Form
 - MHSA 9th Grade Course Selection Sheet



Other Steps



Complete all registration forms at your zone school.



Fill out and submit intra/inter district transfer requests.



If accepted into the MHSA Academy, KHS will contact the District Office & zone school to complete the transfer process.

Question & Answer Session

Thank you for attending and
we look forward to your
application.