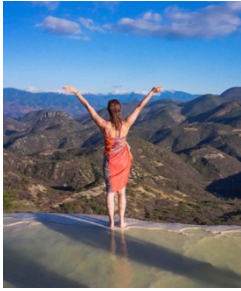
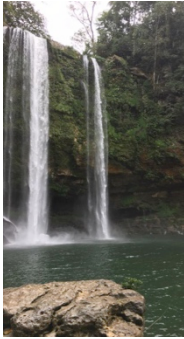


Mexico - Air Pollution and Ancient Cultures

UWInteriM 2020: January 2 - 18

Latest revision: September 9, 2019



Mexico - Air Pollution and Ancient Cultures - UWinteriM 2020

In the 10th offering of this exciting course, students travel to **five** exotic locations in southern Mexico. We'll visit amazing archaeological sites, world-class museums, and universities.

We'll have guided, English-language tours of:

- Teotihuacán (the City of the Gods), where you can climb the third largest pyramid in the world;
- El Tajín, an impressive Gulf Coast site where ancient ballgames ended in human sacrifice;
- Monte Alban, an ancient mountaintop city with breathtaking views;
- Palenque, a Mayan jungle site with toucans and howler monkeys to keep us company.

We'll also explore several fascinating cities and towns including Oaxaca, an unforgettable place with a wonderful mixture of indigenous and modern cultures. The program also includes joint academic activities at the University of Carmen in Ciudad del Carmen.

We are going to these amazing places to study the effects of acid rain on cultural heritage sites. Ancient structures such as pyramids and their once-colorful stucco coverings are easily damaged by acid rain. In the developing countries of Latin America, efforts to protect these sites from environmental corrosion are in their early stages. Students will examine firsthand the relationships between meteorology, air pollution, and cultural heritage. Joint activities with Mexican university students will increase the value (and fun) of the experience.

Video/slideshow/additional info:

<http://people.uwm.edu/kahl/courses/atm-sci-297497-air-pollution-and-ancient-cultures>

Course Objectives. Participants will:

- travel to *five* exotic locations in southeastern Mexico: Mexico City, Ciudad del Carmen, Palenque, Oaxaca, and Papantla
- visit some of the world's most important and spectacular archaeological sites
- climb some of the world's tallest pyramids
- become familiar with the cultural history of several ancient Mesoamerican civilizations
- develop an understanding of the complex relationships between meteorology, air pollution, and cultural heritage
- develop lasting friendships with Mexican university students
- develop an awareness of the difficulties and paradoxes involved in preserving cultural heritage sites in developing countries

Course Director: Prof. Jon Kahl - 414-229-3949 - kahl@uwm.edu
Directors: Assistant director: Connie Jo – conniejo@uwm.edu
Study abroad coordinator: Kate Betka - kbetka@uwm.edu
Course #: Students may elect this course as any of the following:
Atmospheric Science 297/497*, Art History 297/497, L&S Nat. Sci. 297/497
This course counts as an elective for Conservation and Environmental Science (CES), Engineering/Applied Science (CEAS), Atmospheric Science, Art History, L&S Natural Science majors, Latin American, Caribbean, and U.S. Latin@ Studies (LACUSL) majors, and the Latin American and Caribbean Studies (LACS) Certificate program.
Satisfies the International requirement
***Satisfies Natural Science GER requirement (see next page)**

Credits/Level: 3 cr; undergraduate or graduate (if elected as 497)

Prerequisites: 297: none; 497: junior standing

Facebook: facebook.com/UWM.Mexico

Info Sessions:

September 20
11am-noon
EMS E416

September 27
3-4pm
EMS E416



General Education Requirement Documentation

This course carries Natural Sciences General Education Requirement designation. Thus, upon successful completion of this course, you will at a minimum be able to (1) understand and apply major concepts of a natural science discipline, including its breadth and its relationship to other disciplines and (2) demonstrate an understanding of the process of generating and testing data, and apply this knowledge to the solution of problems. This class also addresses University of Wisconsin System Shared Learning Goal 4, “Intercultural Knowledge and Competence including the ability to interact and work with people from diverse backgrounds and cultures; to lead or contribute support to those who lead; and to empathize with and understand those who are different than they are.” Your performance on the course lab exercise will be used to assess your progress toward meeting these criteria and goals.





Comments from Professor Kahl

1. Way back in 2003, with the help of a Fulbright grant, I spent five months living in Mexico City and working at the University of Mexico. Since then I've traveled and worked in Mexico at least twice each year for periods ranging from a few days to a few months. I regularly teach courses at universities in Monterrey, Campeche and Ciudad del Carmen, and have traveled extensively throughout Mexico. I have direct personal knowledge of all places and institutions we will be visiting.
2. Unlike many study-abroad programs, this course involves extensive travel within our destination country. We will spend a few days in each location, with air or ground transportation in between.
3. The detailed plans listed here are subject to change. Changes may be due to weather, road conditions or unexpected early departures of flights or buses. (That's right: Mexican flights sometimes depart *early!*). Mexico has a more relaxed concept of time as compared to the US, thus published transportation schedules, museum open/close hours, etc. are sometimes not strictly followed. Our travel itinerary is intended to have flexibility to accommodate such changes.
4. Mexico City, one of our destinations, is one of the world's largest cities. Just as you would do while walking in downtown Chicago or while riding the New York subway, in Mexico City you must exercise some obvious precautions to avoid being a victim of crime: don't travel alone, don't flaunt your money or wear expensive jewelry, and don't engage in dangerous activities like getting drunk or fighting.
5. There will be periods of free time while we are in Mexico. During these periods the course directors may lead students who wish to accompany us to places of interest, such as Oaxaca's traditional market.
6. Five group meals are provided as part of the overall program cost (indicated in bold on the following pages). Apart from group meals, students are responsible for the cost of their own meals. Meal suggestions are provided in this document. Meals are generally quite inexpensive in Mexico. Students are encouraged to bring a small supply of snacks or energy bars.

Itinerary “at a glance”

Date (2020)	Day	Location	Activity
1/2	Thursday	Milwaukee	Afternoon: Lectures/labs on precipitation collection/measurement and Spanish language instruction. Evening: prepare for tomorrow's departure
1/3	Friday	Milwaukee	Morning/Afternoon: Lectures/labs on meteorology, air pollution, environmental corrosion, and Spanish language instruction.
1/4	Saturday	Travel: Milwaukee to Mexico City	Morning/afternoon: air travel Evening: Cafe de Tacuba
1/5	Sunday	Mexico City; Travel to Ciudad del Carmen	Morning: National Museum of Anthropology Afternoon: flight to Ciudad del Carmen Evening: social event with UNACAR students
1/6	Monday	Ciudad del Carmen	Morning: UNACAR Afternoon: UNACAR Evening: free (social event with UNACAR students)
1/7	Tuesday	Ciudad del Carmen	Morning: UNACAR (lab practicum) Afternoon/evening: free (beach time)
1/8	Wednesday	Travel: Ciudad del Carmen to Palenque	Morning: travel to Misol Ha Afternoon: Misol Ha waterfall Evening: relax in Palenque
1/9	Thursday	Palenque	Morning/afternoon: Palenque archaeological site Evening: relax in Palenque
1/10	Friday	Travel: Palenque to Oaxaca	Morning: bus to Villahermosa Afternoon: flight to Oaxaca Evening: relax in Oaxaca
1/11	Saturday	Oaxaca	Morning: Monte Albán archaeological site Afternoon: San Antonio Arrazola Evening: relax in Oaxaca's historic center
1/12	Sunday	Oaxaca	Morning: Mitla archaeological site Afternoon: Hierve el Agua Evening: relax in Oaxaca's historic center
1/13	Monday	Oaxaca	Morning: Traditional market Afternoon: Tule Evening: relax in Oaxaca's historic center
1/14	Tuesday	Travel: Oaxaca to Papantla	Morning/afternoon: travel (charter van) Evening: relax in Papantla
1/15	Wednesday	Papantla	Morning/afternoon: El Tajín archaeological site Evening: relax in Papantla
1/16	Thursday	Travel: Papantla to Mexico City	Morning/afternoon: travel to Mexico City (charter van) Evening: downtown walking tour
1/17	Friday	Mexico City	Morning: Teotihuacan Afternoon: Templo Mayor archaeological site and museum Evening: relax in Mexico City
1/18	Saturday	Travel: Mexico City to Milwaukee	Morning/afternoon: air travel to Milwaukee Evening: Brats & beer in Milwaukee!

Detailed Itinerary and Syllabus (tentative - subject to change)

(NOTE: Hotel information is listed after the itinerary.)

Day 1 Thursday 2 January

Milwaukee: Lectures/labs on the UW-Milwaukee campus

Morning: 10:00 am - noon, EMS E424a
Course: *Spanish for Travelers, Part I*
Instructor: Richard Hallberg.

The first of a two-part course, students will learn the basics of communicating in Spanish. The *Spanish for Travelers* course is kindly supported by UWM's Center for Latin American and Caribbean Studies.

Afternoon: 12:30 - 1:45 am, EMS E424A
Lecture by Prof. Kahl: *Meteorological Aspects of Acid Rain*

Acid rain presents a strange paradox. Winds carry airborne contaminants far from their source, freshening one area but polluting another. Precipitation removes contaminants from the air, cleansing the atmosphere but polluting the ground. This is acid rain. An acidified lake is beautiful to behold, at least until you realize that the water's crystal clarity is due to the complete absence of plant or animal life. It's great that the atmosphere has an effective self-cleaning mechanism. Unless the acid rain falls on you.

2:00 pm - 3:15 pm, EMS E424a
Lecture by Prof. Kahl: *Aspects of Stone Deterioration*

Corrosion is a natural process in which the energy required to form building materials is returned to the environment. Most environmental corrosion is caused by atmospheric processes. In this presentation we will focus on stone deterioration: identifying the various atmospheric factors involved, the visual appearance of deteriorating stone, and possible interventions.

Evening: Enjoy the cold Wisconsin winter as you prepare to travel to tropical Mexico.

Day 2 Friday 3 January

Milwaukee: Lectures/labs on the UW-Milwaukee campus

Morning: 10:00 am - noon, EMS E424a
Course: *Spanish for Travelers, Part II*
Instructor: Richard Hallberg.

Afternoon: 12:30 pm - 2:30 pm, EMS E424a

RETURN *AZTEC* BOOK TO PROF. KAHL

QUIZ ON *AZTEC* BOOK

Lab presented by Prof. Kahl: *Acid Rain Collection, Measurement, and Source Attribution Using Trajectory Models*

At some point during our travels in Mexico, it's (hopefully) going to rain. We will each collect a rain sample and determine its acidity.

The scale used to describe rainfall acidity is called pH. If a rainfall sample is collected and carefully stored without contamination, the pH can be easily measured using simple instruments. In this lab we will demonstrate the materials and methods you will use to measure the acidity of the rain that falls while we are traveling in Mexico.

We will also learn how to answer the question: Where did the acidity-causing contaminants enter the atmosphere? In other words, who polluted our rain?

This is actually a rather complicated question, because the original contaminants may have come from multiple locations or altered their identity via chemical reactions. Nevertheless, by studying wind and cloud patterns it is usually possible to estimate the source regions of the guilty pollutants. We will use a state-of-the-art atmospheric trajectory model to determine the source of the pollutants contributing to an acid rain event. After the travel portion of the course is completed, students will use this method to determine the source of the pollutants responsible for the acid rain event they measure while in Mexico. (If it doesn't rain, we'll use a 'hypothetical' rain event.)

2:45 pm – 4:00 pm, EMS E424a
Lecture by Prof. Kahl: *Topic to be announced*

Evening: Last-minute packing and preparation for tomorrow's travel to Mexico. Try to get some sleep - we're starting very early.

Day 3 Saturday 4 January

Travel: Milwaukee to Mexico City

Morning/

afternoon: Air travel from Milwaukee to Mexico City

7:00 am: Meet at Milwaukee's General Mitchell International Airport (near American Airlines ticket counter)

9:55 am: Scheduled departure for Mexico City (American Airlines flight #2762, connecting in Dallas/Fort Worth)

5:00 pm: Scheduled arrival in Mexico City

Please bring your journals in your carry-on luggage.

Baggage info for our American Airlines flights (subject to change):

free: 1 carry-on & 1 personal item, not to exceed 22 lb combined

\$30 USD: first checked bag, 50 lbs max. Details at

<https://www.aa.com/i18n/travel-info/baggage/checked-baggage-policy.jsp>

FLIGHT SCHEDULES ARE SUBJECT TO CHANGE.

YOU ARE RESPONSIBLE FOR ARRANGING YOUR OWN
TRANSPORTATION TO THE MILWAUKEE AIRPORT!

TRAVEL TIP: Our flights may offer meals for purchase. This is great if you like bad food at expensive prices. Food purchased at airports is of better quality but also expensive. You might want to plan ahead and bring some snacks or a sandwich. We may not have a chance to eat a proper meal until dinner in Mexico City.

TRAVEL TIP: The U.S. Federal Aviation Administration seems to constantly change its list of prohibited items to bring aboard an aircraft. Please check their website (www.tsa.gov/traveler-information/prohibited-items) to avoid having any items confiscated.

TRAVEL TIP: Please take a flight sickness bag from the plane and keep it with you during our Mexico adventure. If you need it, you'll be glad you have it.

TRAVEL TIP: Mexico City is a high altitude city. You may experience shortness of breath, fatigue, and headaches. Drinking a lot of non-caffeinated, non-alcoholic fluids will help keep you hydrated and healthy.

Upon arriving at the Mexico City airport we'll find ATMs and get some Mexican currency, and take a charter van to our hotel.

Evening: We'll check into the hotel and relax for a bit. Be sure to buy some water at one of the little stores next to the hotel (just enough for the tonight and tomorrow morning). Next, your course directors will lead you on an informal walking tour of the Alameda Park section of downtown Mexico City, followed by dinner at the nearby Café de Tacuba, a beautiful, 100-year-old restaurant serving traditional Mexican food (try the hot chocolate!). This will be our first of five **group meals**. (And yes, the Latin alternative rock band Café Tacvba was named after the restaurant.)

PREPARING FOR TOMORROW: Tomorrow morning we will check out of the hotel, go to the Anthropology Museum, and afterward directly to the airport. We will not return to the hotel in between.

TRAVEL TIP: In January, nighttime Mexico City temperatures can drop as low as the upper 30s (Fahrenheit). Make sure you have extra blankets ('mantas' in Spanish) in your (unheated) hotel room - you may need them during the night. If you need more, you can practice your Spanish and request them at the hotel's front desk.

Meal suggestions: Breakfast: snacks or airport food.
Lunch: snacks or airport food.
Dinner: **Group meal #1** at Café de Tacuba.

Day 4 Sunday 5 January

Mexico City: National Museum of Anthropology

Travel: Mexico City to Ciudad del Carmen

Morning: 8:30 am: Meet in hotel lobby; check out of hotel.
9:00 am: Departure by charter van to the National Museum of Anthropology
9:30 am: Arrival at museum.

Mexico's world-renowned National Museum of Anthropology is located in the Chapultepec Park section of Mexico City. This amazing museum is home to one of the finest archaeological collections in the world. This visit is intended to set the stage for the various archaeological sites we'll be touring in the coming two weeks. After the tour there should be a little time to do any of the following: i) wander around the other exhibits that weren't included on the tour; ii) check out the very nice museum gift shop; iii) search for turtles in the museum plaza.

Please feel free to chat up Berenice Velasquez, our museum guide. She's a wonderful lady and a longtime friend of your program leaders, who has guided many past UWM student groups. She speaks excellent English and is very happy to answer questions.

Afternoon: Air travel from Mexico City to Ciudad del Carmen

NOTE: Afte leaving the Museum, there *should* be plenty of time to grab lunch at the Mexico City airport. But please have some snacks handy just in case we experience traffic or airport delays.

12:30 pm: travel by charter van from the National Museum of Anthropology to the Mexico City's Benito Juarez International Airport
1:00 pm: Scheduled arrival at Mexico City airport
3:10 pm: Scheduled departure for Mexico City (Interjet flight #2505),

4:40 pm: Scheduled arrival in Ciudad del Carmen
Please bring your journals in your carry-on luggage.
FLIGHT SCHEDULES ARE SUBJECT TO CHANGE.

Baggage info for our Interjet flights (subject to change):
free: 1 carry-on & 1 personal item, not to exceed 22 lb combined
\$30 USD: first checked bag, 50 lbs max. Details at
<https://www.interjet.com/en-us/plan-your-flight/baggage/checked-baggage> and
<https://www.interjet.com/en-us/plan-your-flight/baggage/>

Upon arrival in Ciudad del Carmen, we'll take a charter van to our hotel (a very short ride).

Until recently Ciudad del Carmen, in the Mexican state of Campeche, was a small fishing village along Mexico's Gulf coast. Even now, pelicans and dolphins are commonly seen near the city's shores. When oil was discovered in the mid 1970s, the town was transformed into the principal base of operations for the numerous offshore oil platforms in the southern Gulf of Mexico.

Aside from being an oil town, Ciudad del Carmen is a small island community connected to the mainland by the longest bridge in Latin America. Carmelitas (as local residents like to be called) love their shrimp. In the small downtown area, a large steel fountain in the shape of a shrimp emphasizes the abundance of aquatic life (and excellent seafood). If you look carefully you can spot an anemometer, a meteorological instrument for measuring wind speed, near the shrimp's, er, backside.

TRAVEL TIP: The vast majority of Mexican people are extremely friendly. They *love* to practice their English, and they appreciate it when you attempt to speak Spanish to them. Feel free to chat up your taxi drivers, hotel staff, tour guides, etc. In either English or Spanish.

Evening: Our only activity will be walking to a nearby store to buy a couple of days worth of drinking water. Other than that, we'll take it easy, relax by the hotel pool and order pizzas. Prof. Kahl might try to arrange for some UNACAR students to join us. (UNACAR is the Spanish abbreviation for the Universidad Autónoma del Carmen). **Please make an effort to mingle with them. They are very friendly and interesting people – students just like you, but with very different backgrounds – and are very excited to meet you (and to practice their English!).** Also, please make sure to spend a few minutes reviewing your presentation – these will be given at UNACAR tomorrow. (The presentations are described in the 'Grading' section of this document.)

Meal suggestions: Breakfast: bring your own snacks, or eat something quick at the hotel restaurant.
Lunch: snacks or airport food.
Dinner: poolside pizza.

NOTE FOR PACKER FANS: The wild-card round of the NFC playoffs is scheduled for January 4 and 5. If Green Bay is playing, we'll try to arrange a viewing opportunity for those who are interested. No guarantees, but we'll try.

Day 5 Monday 6 January

Ciudad del Carmen: University of Carmen (UNACAR)

Please carry your rain sampling equipment with you whenever you are outside unless told otherwise by the program directors.

Morning: 7:45 am: Meeting in hotel lobby.
 8:00 am: Walk to nearby restaurant for breakfast (optional)
 9:30 am: Departure by charter van to the UNACAR campus. Bring a day pack with your journal and some water.

TRAVEL TIP: Scheduled events at UNACAR often start later than advertised. Please be prepared for this.

The in-country portion of the program begins with a two-day visit to UNACAR. Why is UNACAR and Ciudad del Carmen part of this study abroad program? For one thing, two professors at UNACAR, Dr. Julia Cerón and her identical twin sister Dr. Rosy Cerón, are among the best of the small group of scientists engaged in air pollution research in Mexico. Also, UWM and UNACAR are engaged in a variety of collaborative activities, including different types of student and faculty exchanges.

Drs. Rosy and Julia are supervising a group of students working on their Masters and Bachelors theses. This morning some of them will present their research results to our group.

Afternoon: We'll transfer by charter van to eat lunch at Los Trompos, an open-air restaurant on Playa Norte (North Beach), another of the island's beaches.

After lunch we'll return to UNACAR where we will give our presentations to the UNACAR folks. Afterward we'll return by charter van to our hotel.

TRAVEL TIP: In Mexico, the midday meal ("comida" in Spanish) is the strongest meal of the day, analogous to our dinner. It typically occurs around 2pm. Please be aware of this difference in mealtime. Feel free to bring along a snack or energy bar if necessary.

Evening: Free. There may be an optional social event together with the UNACAR students. Stay tuned...

Meal Breakfast: Ciudad del Carmen restaurant
suggestions: Lunch: Los Trompos
Dinner: Cd. del Carmen restaurant

Day 6 Tuesday 7 January

Ciudad del Carmen: University of Carmen (UNACAR)

Morning: 7:45 am: Meeting in hotel lobby.
8:00 am: Walk to nearby restaurant for breakfast (optional)
9:30 am: Departure by charter van to the UNACAR campus. Bring a day pack with your journal and some water.

We'll have our final academic activity at UNACAR today, where faculty and students will demonstrate laboratory techniques for measuring different types of impurities in precipitation samples.

Afternoon: After finishing at UNACAR we'll eat lunch at La Pigua, an excellent seafood restaurant in Ciudad del Carmen. This will be our second **group meal**. We'll then return to the hotel.

DINING NOTE: La Pigua serves a fantastic variety of seafood, but also features a handful of non-seafood options.
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Evening: We'll probably head downtown, where some of the UNACAR folks may join us for a walk along the malecón: the boardwalk in downtown Cd del Carmen. We may arrive too late, but along the malecón you can watch the sunset and look for dolphins and the green flash. (Ask Prof. Kahl about the green flash - he has a few stories to tell ...) Having had a late lunch you may wish to skip dinner. But if you're hungry, it'll be easy to find a restaurant either downtown or near the hotel.

Meal Breakfast: Ciudad del Carmen restaurant
suggestions: Lunch: **Group meal #2** at La Pigua
Dinner: Ciudad del Carmen restaurant

Day 7 Wednesday 8 January

Travel: Ciudad del Carmen to Palenque via the Misol Ha waterfall

Morning: 6:45 am: Meeting in hotel lobby.
7:00 am: Walk to nearby restaurant for breakfast (optional)
8:15 am: Check out of hotel.
8:30 am: Transfer by charter van to Misol Ha. Keep a day pack handy with your journal, sunscreen, swimsuit, rain gear, mosquito repellent, and water.
1:00 pm: Scheduled arrival at Misol Ha.

We'll travel by charter van to Palenque, but along the way we'll stop at Misol Ha, a spectacular 100-foot jungle waterfall surrounded by lush tropical vegetation. It's about 4.5 hours from Ciudad del Carmen to Misol Ha, then another hour to Palenque.

Afternoon: Misol Ha is an amazing place (a jungle waterfall, duh). You'll have another swimming opportunity, even better than the hotel pool in Ciudad del Carmen. Be sure to walk the path that leads behind the falls for an ethereal "through-the-looking-glass" experience. We'll spend a few hours at the falls, and eat lunch at the on-site restaurant. If you're feeling adventurous, there's a cave at Misol Ha with an ancient painting inside. Admission to the cave costs a few pesos.

SAFETY NOTE: If there's been heavy rains, swimming and hiking near the falls might be dangerous. This is unlikely but it can happen. If your program leaders determine that conditions are unsafe, we'll just have a short look around and continue on to Palenque.

After Misol Ha we'll continue on to Palenque, about one hour down the road.

The village of Palenque (officially 'Santo Domingo de Palenque') is a quiet little town, smaller than Ciudad del Carmen. We'll stay in the "Cañada" section of town. It's prettier than the downtown area. We'll check into our hotel and, if the travel gods have been kind, have a chance to relax for a bit before heading into town for the evening.

Evening: Explore the quiet village of Palenque. We'll walk from the Cañada to the small downtown area and eat dinner at one of Palenque's many inexpensive restaurants. (Prof. Kahl is partial to eating, relaxing, and watching the world go by at the rooftop restaurant El Señor Molino.) If you didn't get enough seafood in Ciudad del Carmen, there's an excellent seafood restaurant called El Huachinango Feliz (The Happy Snapper) conveniently located next door to our hotel.

Please purchase snacks for breakfast tomorrow morning, as we'll be starting early and won't have time to stop for breakfast.

TRAVEL TIP: Seafood restaurants in and around the Yucatan peninsula often provide free appetizers! El Huachinango Feliz is no exception.

Meal suggestions: Breakfast: snacks
Lunch: Misol Ha restaurant
Dinner: Palenque restaurant.

Day 8 Thursday 9 January

Palenque: Palenque archaeological site

Morning 7:30 am: Group meeting in hotel lobby. Bring a day pack with your journal, mosquito repellent, hat, sunscreen, rain gear and plenty of water (at least 1 liter per person). We'll be walking through the jungle today, so mosquito repellent is a must. Wear shoes with good soles, as the jungle can be slippery.
7:45 am: Transfer by combi (shared taxis) to the Palenque archaeological site, about 20 minutes away.

JUNGLE SHOES: Our Palenque jungle walk can be a messy experience. If it rains, you could end up muddy up to your knees. Consider bringing hiking shoes/boots with aggressive tread patterns - these will reduce slipping and sliding and will allow your non-jungle shoes to remain mud-free.

We're starting our day early because a) the weather is cooler and more comfortable in the morning as compared to midday; and b) our tour today includes a jungle walk led by guide Salvador Flores Lastra, a longtime friend and colleague of Prof. Kahl, and birds and other animals are more likely to be seen early in the morning. The jungle tour is excellent - previous tours have featured vine swinging, termite tasting, and other surprises.

Expect to spend around 4-5 hours at the Palenque archaeological zone. Our 1-2 hour jungle walk will be followed by a 1-2 hour tour of the restored temples.

The Palenque archaeological site, located 4.5 miles from Palenque town, is one of the best examples of Mayan architecture in Mesoamerica. The geographical location is breathtaking in itself - located in steamy jungle hills amid toucans, howler monkeys and waterfalls. Reaching its peak in around AD 700, Palenque was a powerful Maya kingdom of over 6,000 people. Palenque's most famous ruler was Pakal the Great, who ruled from 615-683 A.D. Pakal's tomb, excavated around 1950, is one of the richest and best preserved in Mesoamerica.

MEAL PLANNING NOTE: Today is a day that requires advance planning regarding food/snacks. (For some reason restaurants don't grow in the jungle, and you can only eat so many termites!) We're skipping breakfast to take our 4-5 hour Palenque tour nice and early, when there's a better chance to see animals. After the tour there are other interesting things to see in the area of the archaeological site. It might be 3 or 4pm by the time we return to the hotel and we'll be sweaty and tired. The solution is SNACKS. Bring enough snacks for both breakfast and lunch. And water. Lots of water.

Palenque is one of Mexico's top tourist destinations, attracting thousands of visitors each year. The well-preserved ruins are excellent places to observe the paradox that concerns archaeological sites: once excavated for the purpose of observing and studying cultural heritage, buildings and artifacts are immediately subject to deterioration from the elements and from the effects of tourism.

The small airport in Palenque is another source of controversy. The business community argues that its proposed expansion will increase tourism and benefit

the economy, while environmentalists fear the ill effects of increased tourist traffic to the area.

Afternoon: After completing the the archaeological site tour we'll all be tired, hot and sweaty. We'll find a shady spot, recharge with a short rest, a snack and a bottle of water, and grab a second wind. At this point you'll be able to choose from several options, including: You can explore parts of the archaeological site not included on the tour; you can visit the nearby site museum (a small museum containing an excellent reproduction of Pakal's tomb and interesting artifacts from Palenque); you can visit two very nice gift shops close to the site museum, including a store selling good quality handicrafts and gift items from the state of Chiapas; or you can return to the hotel and relax before our second group dinner.

Evening: We will have another **group meal** at Maya Cañada, a slightly upscale place directly across the street from our hotel serving excellent chiapaneco (local, from Chiapas) cuisine.

Meal suggestions: Breakfast: snacks
Lunch: snacks
Dinner: **Group meal #3** at Restaurant Maya Cañada.

Day 9 Friday 10 January

Travel: Palenque to Oaxaca

Morning/ 7:00 am: Check out of Palenque hotel.
afternoon: 7:15 am: Group meeting in hotel lobby
7:30 am: Departure by charter van
Keep your journal with your carry-on luggage.

BREAKFAST NOTE: The hotel restaurant will probably not open early enough for us today. Please plan on bringing snacks. With any luck we'll have time to eat at the Villahermosa airport.

The first stage of today's travel is a drive from Palenque to Villahermosa, the closest city with a major airport. It's a two hour trip, a pretty drive through jungle swamps and hills. Watch for crocodiles!

Villahermosa, located in a humid lowland region with lots of alligators, wetlands and beaches, is the largest city in the state of Tabasco. It's an oil town, also known for chocolate and for pejelagarto, the weirdly ugly 'lizard fish' found in it's muddy rivers. You may see stuffed pejelagarto for sale in the airport gift shop. Villahermosa has been called "La ciudad de dos mentiras" (the city of two lies) because it's a large city (not a village or 'villa') and it's not particularly pretty ('hermosa').

The second stage of our travel is a flight to Oaxaca, with a connection in Mexico City. We should have plenty of time to eat lunch in the Mexico City airport.

FLIGHT SCHEDULES ARE SUBJECT TO CHANGE.

12:06 pm: Scheduled departure from Villahermosa for Mexico City
(Aeromexico flight #506)

1:50 pm: Scheduled arrival in Mexico City

5:35 pm: Scheduled departure for Oaxaca (Aeromexico flight #2036)

6:55 pm: Scheduled arrival in Oaxaca

Baggage info for our Aeromexico flights (subject to change):
free: 1 carry-on & 1 personal item, not to exceed 22 lb combined
free: 1 checked bag, 55 lbs max. Details at <https://aeromexico.com/en-us/travel-information/baggage>

We'll collect our luggage upon arrival in Oaxaca and transfer to our hotel by charter van or taxi.

The state of Oaxaca (pronounced wah-*hah*-kah) is one of the most fascinating parts of Mexico. Oaxaca's many indigenous cultures are highly integrated into modern everyday life. You're likely to see briefcase-carrying businessmen walking alongside women dressed in colorful huipiles (traditional dresses), carrying baskets of tomatoes, fried grasshoppers or dried chili peppers on their heads. Whether you like mountains, arts and handicrafts or food (definitely Professor Kahl's favorite - ask him about mole negro and tlayudas), you'll undoubtedly enjoy a visit to Oaxaca.

The capital city, also called Oaxaca, is in the center of the state, close to spectacular archaeological sites and the Valles Centrales (central valleys) - areas with small towns specializing in specific handicrafts like pottery, rugs and wooden carvings). Oaxaca is a vibrant city popular with international tourists and is known for its colorful atmosphere and unique cuisine.

Evening : After checking into the hotel, the course directors will lead the group on an informal walking tour of the city center. After this tour Prof. Kahl will likely eat at his favorite outdoor restaurant along the zocalo (central town square), and anyone/everyone is invited to join him!

Meal suggestions: Breakfast: snacks
Lunch: snacks or airport food
Dinner: Oaxaca restaurant

Day 10 Saturday 11 January

Oaxaca: Monte Albán, Arrazola

Morning: 8:00: Group meeting in hotel lobby. We'll have breakfast at Cafe Alex, a few blocks from our hotel. (Try the quesillo a la plancha: grilled Oaxacan cheese.)
9:30: Departure - bring a day pack with journal, hat, sunscreen and lots of water.

We'll travel by taxi and/or charter van to Monte Albán, the capital of the ancient Zapotec civilization. Monte Albán is one of the most spectacular archaeological sites in all of Latin America. Located on a flattened mountaintop a few miles west of Oaxaca (the ancient Zapotecs flattened it themselves using only hand tools!), the site features impressive 360-degree views of the surrounding valleys. At its peak during the years AD 300 – 700, Monte Albán's population reached about 25,000. The site features large pyramids, ballcourts, and carvings depicting captured leaders of neighboring peoples.

ANOTHER NOTE FOR PACKER FANS: The divisional round of the NFC playoffs is scheduled for January 11 and 12. If Green Bay is playing, we'll try to arrange a viewing opportunity for those who are interested. No guarantees, but we'll try. We'll try pretty hard.

Afternoon: After touring Monte Albán, we'll relax with a picnic lunch. Afterward (around 2pm) we'll visit San Antonio Arrazola - a small village where residents carve and paint *alebrijes*, the colorful wooden figures depicting real and fantastical creatures. Master carver Armando Jimenez will show us how these beautiful and unusual items are made. We'll return to the hotel at around 5pm (ish).



Evening: We'll have our fourth **group meal** at Casa Mayordomo. At this popular restaurant along the Alcalá, Oaxaca's lively pedestrian walkway, you'll have a chance to sample the excellent Oaxacan cuisine which includes among many other delicacies: quesillo (a locally-made salty string cheese), tlayudas (large corn tortillas covered with toppings of your choice, sort of like a pizza), and mole negro (Oaxaca's famous salsa: thick, black and chocolaty). If you're feeling adventurous, you can try the fried grasshoppers.

Meal suggestions: Breakfast: Café Alex
Lunch: picnic lunch outside Monte Albán
Dinner: **Group meal #4** at Casa Mayordomo

Day 11 Sunday 12 January

Oaxaca: Mitla, Hierve el Agua

Morning: 8:00: Group meeting in hotel lobby. We'll have breakfast at one of the zócalo restaurants.
9:30: Departure. Bring a day pack with journal, hat, sun screen and water. And a swimsuit!

We'll travel by taxi and/or charter van to Mitla, another Zapotec city about 30 miles southeast of Oaxaca city. Much smaller than Monte Albán, Mitla features well-preserved stone mosaics that are unique in Mexico. Mitla is most famous for its many tombs which, unfortunately, were plundered long ago. The word "Mitla" is a derivative of the Nahuatl (ancient Aztec language) word "mictlan", which means underworld. Modern-day Zapotecs live immediately adjacent to the archaeological site, presenting an interesting mix of ancient and modern cultures. Outside the archaeological site there is a nice market where you can buy reasonably-priced clothing and alebrijes, among other things.

Afternoon: After Mitla we'll continue eastward to Hierve El Agua, a beautiful mountaintop mineral spring with interesting rock formations that look like huge, frozen waterfalls.

According to Mexico study abroad program alums, "beautiful" doesn't even come close to describing Hierve el Agua. Maybe "breathtaking". Or "awe-inspiring". You get the idea. We'll bring a picnic lunch, and spend an excruciatingly pleasant several hours lounging in the mineral springs or hiking through the mountains. This is one of our best swimming opportunities! We'll stay until about 4:00pm or so.

We'll return to the hotel at around 6pm.

Evening: Free.

Life offers few things better than a free evening in Oaxaca. You could:
- Grab a quick dinner at a zócalo restaurant, return to the hotel and relax
- Visit the shops and galleries.
- Chill at an outdoor cafe (this is Prof. Kahl's favorite Oaxaca activity).
- Enjoy the lively activities on the zócalo - free concerts, street performers, and vendors selling a variety of colorful merchandise.

Meal suggestions: Breakfast: one of the restaurants along the zócalo
Lunch: picnic at Hierve el Agua
Dinner: Oaxaca restaurant

Day 12 Monday 13 January

Oaxaca: Traditional market and Tule

Morning: 9:15 am: Group meeting in hotel lobby.
9:30 am: Departure. Bring a day pack with journal, hat, sun screen and water.

We'll walk to Oaxaca's famous traditional market 'Mercado 20 de Noviembre', located a few blocks south of our hotel. First stop will be one of the little restaurants (comedores) where you can try the famous Mexican hot chocolate, traditionally served in a bowl with bread (pan de yema). Other traditional breakfast items include tamales and quesadillas, among other delicious items.

In the market you'll catch a modern glimpse of traditional Zapotec culture. Vendors at this market sell many items available nowhere else in the world, including fried grasshoppers, dried worms, and the dried chili peppers used in the famous mole sauces. The traditional market is a great place to buy t-shirts, alebrijes and other souvenirs. Prof. Kahl recommends bringing home chocolate - it's cheap, it's yet another of Oaxaca's many specialties, and it makes an excellent gift. Buy some for yourself too.

SAFETY TIP: The traditional market is huge, sprawling, and often crowded and chaotic. Keep your belongings close – pickpocket artists have been known to lurk in the market. The market is often so crowded that it may be impossible for groups of people to stay together. You WILL get lost. Don't worry - enjoy being lost, it's part of the experience! Wander the market's three large buildings, and when you re-emerge to the outside world, ask a passerby to point you toward the Zócalo (city center). If your Spanish is rusty, just look confused and ask "Zócalo???" People are friendly; they'll help you. Our hotel is half a block from the Zócalo. Start walking and you'll soon recognize where you are.

Be sure to return to the hotel by 12:30 pm.

Afternoon: 12:30 pm: Group meeting in hotel lobby.
12:45 am: Departure by charter van for Tule.

We'll head to the village of Santa María del Tule, a tiny, nearby town whose claim to fame is nothing less than the largest tree in the world! The Tule tree's 2,000+ year old trunk measures 35 feet in diameter. It's truly an astonishing sight.

After Tule we may 'accidentally' stop at El Rey de Matatlán, one of many small mezcál distilleries in this part of Oaxaca. Mezcál, a smoky-flavored, tequila-like liquor made from the agave plant, is yet another of Oaxaca's many well-deserved claims to fame. The King (El Rey) will demonstrate how mezcál is made, and you can taste different varieties if you wish. Accidentally.

Your course directors will prepare sandwiches to eat during this afternoon's travels.

Evening: Ah, another free evening in Oaxaca. Life is good.

Please spend a few minutes packing up your belongings, as we'll be checking out and moving on early tomorrow morning. Also, you should also purchase some snacks to eat during tomorrow's van journey to Papantla. We'll be starting pretty early.

Meal suggestions: Breakfast: Oaxaca's Mercado 20 de Noviembre
Lunch: sandwiches
Dinner: Oaxaca restaurant

Day 13 Tuesday 14 January

Travel: Oaxaca to Papantla

Morning/afternoon: 5:00 am: Check out of hotel.
5:15 am: Group meeting in hotel lobby
6:00 am: Transfer by charter van to Papantla. Keep a day pack handy with your journal, sweater/sweatshirt, and water.
4:00 pm: Scheduled arrival at our hotel in Papantla.

We'll travel from Papantla to Oaxaca in a charter van. You'll have ample opportunities to view the beautiful countryside as we pass through northern Oaxaca state. We'll cross spectacular mountain ranges and see a wide range of vegetation, ranging from jungle to expansive fields of tubular cacti. We'll also get excellent views of Orizaba Peak, at 18,491 feet the third-highest mountain in North America. You can pass the time reading, listening to music, napping, or whatever.

TRAVEL TIP: If you have problems with motion sickness, please be aware: there will be periods of twisty-turny driving as we cross the mountains.

Papantla is at the center of Mexico's vanilla-growing region, as well as its Totonac culture. You may see townspeople wearing traditional Totonac clothing: men with loose white shirts and pants leading horses or donkeys, and women with embroidered blouses and capes.

Upon arrival, we'll check into our hotel and you can relax and explore Papantla. The town is much smaller than Oaxaca: similar in size to Palenque but much prettier.

Evening: We will have our final **group meal** at Plaza Pardo, an excellent restaurant (Papantla's best!) and one of Prof. Kahl's favorites. There will be opportunities to sample the culinary specialties of the area, including molotes (corn flour dumplings stuffed with spiced meat) and bocoles rellenos (sweet, thick corn pancakes filled with cheese, meat or egg).

Meal Breakfast: snacks or truck stop food

suggestions: Lunch: snacks or truck stop food
Dinner: **Group meal #5** at Plaza Pardo.

Day 14 **Wednesday 15 January**

Papantla: **El Tajín archaeological site**

Morning/ 8:45 am: Meet in hotel lobby and walk to nearby restaurant for breakfast
afternoon: (optional)
10:15 am: Group meeting in hotel lobby. Bring a day pack with your journal,
hat, sunscreen and water.
10:30 am: Departure.

We'll travel by taxis or charter van to the lovely El Tajín archaeological zone, about 20 minutes from Papantla. Tajín is famous for its “pyramid of the niches” and its ballcourts.

Tajín was the principal town and ceremonial center of the Classic Veracruz civilization which peaked from 600-900 AD. The ruins of Tajín, which in the Totonac language means 'thunder god', feature unique pyramids with carved alcoves (niches) thought to have served as calendars. There are also many ballcourts where ancient ballgames ended in human sacrifice, as well as some rare sculptures depicting these gruesome events. Surprisingly, whether it was the winners or the losers who were sacrificed is a subject of lively debate among Mesoamerican historians. Be sure to ask Fernando Ticante, our Tajín guide and another longtime friend of your course directors, for his opinion on this.

After visiting the El Tajín archaeological site we will witness a Voladores performance. The flight of the Voladores is an amazing Totonoc ritual conducted by five costumed men at the top of a very tall pole. One man plays the flute while the other four, attached by ropes, jump off the pole and appear to fly as they gracefully revolve upside-down around the pole, slowly descending to the ground. Don't try this at home!

We'll eat lunch at one of the many palapa-covered restaurants outside Tajín.

There is a nice market outside El Tajín where you can buy vanilla extract and figurines made from vanilla beans if you wish. These make excellent gifts - prices are generally reasonable.

In midafternoon we'll return to Papantla.

TRAVEL TIP: If you purchase vanilla extract, inexpensive and readily available in Papantla, make sure the container has a secure cap, and during air travel carry it in your checked (rather than carry-on) luggage.

Evening: Free time! Enjoy the quiet charms of Papantla. Options include:
- Wander the tranquil streets.
- Relax on the hotel balcony overlooking the zócalo (central town square).
- Sip a cold beverage at an outdoor table at one of the zócalo restaurants.
Prof. Kahl's favorites include licuados (yogurt milkshakes), horchata (rice smoothie) and agua de jamaica (iced hibiscus tea).
- Ask the course directors about the (in?)famous events involving past UWM groups in Papantla.

You should also purchase some snacks to eat during tomorrow's journey to Mexico City.

Meal suggestions: Breakfast: Papantla restaurant
Lunch: restaurant outside El Tajín
Dinner: Papantla restaurant

Day 15 Thursday 16 January

Travel: Papantla to Mexico City

Morning/afternoon: 9:00 am: Meet in hotel lobby and walk to nearby restaurant for breakfast (optional)
10:30 am: Check out of hotel. Bring a day pack with your journal, hat, sunscreen and water.
11:00 am: Departure.

We'll travel by charter bus to Mexico City. The trip takes about five hours and will include spectacular vistas as we cross the Sierra Madre Oriental mountain range. We'll stop at some point to purchase snacks. We should arrive in Mexico City at around 2 pm.

TRAVEL TIP: If you have problems with motion sickness, please be aware: there will be periods of twisty-turny driving as we cross the mountains.

TRAVEL TIP: Don't buy food items from vendors who may approach the van during gas/bathroom breaks. The age and hygiene of such food items is questionable.

Evening: Upon arrival in Mexico City we'll check into our hotel, the same hotel where we stayed the very first night. After resting up a bit, your program directors will take you on an informal walking tour of Mexico City's zócalo, the heart of downtown, followed by dinner at a downtown restaurant. Be sure to pick up some breakfast snacks for tomorrow.

Meal suggestions: Breakfast: Papantla restaurant
Lunch: snacks or road food
Dinner: Mexico City restaurant

Day 16 Friday 17 January

Mexico City: Teotihuacan, Templo Mayor

Morning: 7:15 am: Group meeting in hotel lobby.
 7:30 am: Transfer by charter van to Teotihuacán. Be sure to have your journal handy on the bus.

NOTE: We will be departing for the day's activities before the hotel restaurant opens. Bring some granola bars or other portable breakfast food to eat on the drive to Teotihuacan.

We will travel by charter van to the ancient city of Teotihuacan. Located 30 miles north of downtown Mexico City, Teotihuacan is one of the most important and famous archaeological sites in the world. In AD 600 Teotihuacan was one of the world's largest cities, home to some 200,000 people. The Mexíca (Aztecs) routinely made pilgrimages to this already-deserted site. To this day archaeologists still aren't sure who built it, who destroyed it, or even who named it.

Our tour of Teotihuacan will include visits to spectacular temples, tombs and pyramids. You will have the opportunity to climb the Pyramid of the Sun, the world's third tallest pyramid. There is often active exploration at Teotihuacan – hopefully we'll see archaeologists at work.

TRAVEL TIP: *Pace yourself* when climbing the pyramids. At the high altitude of Mexico City, your lungs are getting only 75% of the oxygen they usually get. Bring plenty of water and prepare to be winded.

Afternoon: After touring Teotihuacán we'll stop at a nearby restaurant for lunch.

TRAVEL TIP: Please consider carrying an extra shirt in your backpack. Climbing pyramids is sweaty work. We'll be going to another archaeological site directly from Teotihuacán without stopping at the hotel.

Our next stop today is Templo Mayor, in the heart of Mexico City.

Before the Spaniards demolished it in 1521, the Aztec capital of Tenochtitlán stood in the heart of what is now Mexico City. One of the largest cities in the world at the time, the great temple (Templo Mayor) featured a 40-meter high pyramid on which humans were sacrificed. Hernán Cortés and his group of Spanish conquistadors (conquerors) demolished the temple with their cannons, against which the Aztecs had no defense. We'll tour the temple site, and time-permitting, visit a museum which contains artifacts recovered during the construction of the Mexico City Metro (subway) system.

Evening: After Templo Mayor we'll return to the hotel. You'll need to pack for tomorrow's return trip to Milwaukee. You can eat dinner at the hotel restaurant, or order pizzas or tacos.

Meal Breakfast: snacks
 suggestions: Lunch: restaurant near Teotihuacan
 Dinner: hotel restaurant

Day 17 Saturday 18 January

END TRAVEL PORTION OF COURSE

Travel: Mexico City to Milwaukee

Morning/ 9:00 am: Check out of hotel.
 afternoon: 9:15 am; Final group meeting in the hotel lobby (**please keep your journals with your carry-on luggage**).
 10:00 am: Departure by charter van to the Mexico City airport.

FLIGHT SCHEDULES ARE ESTIMATED AND SUBJECT TO CHANGE.

2:40 pm: Scheduled departure for American Airlines flight #474 to Chicago O'Hare

6:50 pm: Scheduled arrival in Chicago.

9:05 pm: Scheduled departure for American Airlines flight #3806 to Milwaukee

9:59 pm: Scheduled arrival in Milwaukee

Baggage info for our American Airlines flights (subject to change):

free: 1 carry-on & 1 personal item, not to exceed 22 lb combined

\$30 USD: first checked bag, 50 lbs max. Details at

<https://www.aa.com/i18n/travel-info/baggage/checked-baggage-policy.jsp>

Meal Breakfast: Hotel restaurant
 suggestions: Lunch: airport snacks
 Dinner: Wisconsin food - brats & cheese curds!!

Hotel Information:

Mexico City	Ciudad del Carmen	Palenque	Oaxaca	Papantla
Hotel Mónaco	Hotel Lossandes	Hotel Xibalba	Hotel Las Rosas	Hotel Tajin
tel 52-55-5566 8333	tel 52-938-382- 2400	tel 52-916-345- 0411	tel 52-951-514- 2217	tel 52-784-842- 0121
www.hotel- monaco.com. mx/english	www.lossandes. com.mx	hotelxibalba .com	facebook.com/hlr osasoax112	hoteltajin.com.mx

reservaciones@ hotelmonaco. com.mx	Recepcion lossandes@ hotmail.com	xibalba02@ prodigy.net.mx	hlrosoax112@ gmail.com	reservaciones@ hoteltajin.com.mx
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Weather and Climate

The following chart presents climate information, *during the month of January*, for our Mexican destinations.

Location	Altitude (feet above sea level)	Average high temperature (°F)	Average low temperature (°F)	Average monthly precipitation (inches)
Mexico City	7544	68	40	0.31
Papantla	977	67	52	0.86
Oaxaca	4987	78	47	0.10
Palenque	262	80	65	0.25
Ciudad del Carmen	7	82	70	0.27

Some comments concerning:

- **Oxygen:**

Mexico City is over 2,000 feet higher than the 'mile high' city of Denver. A breath of air in Mexico City delivers only 75% of the oxygen that your lungs get with a breath of Milwaukee air. As a result, visitors to Mexico City sometimes experience fatigue and headaches. This can be prevented by drinking lots of water, eating lightly and reducing caffeine and alcohol consumption.

- **Rain:**

Our Mexican destinations generally don't get much rain in January, but we might be surprised. Prepare to get wet. Umbrellas are not recommended, as you'll want to keep your hands free while climbing pyramids. A light windbreaker or rain jacket or poncho is recommended, as well as good walking shoes. No flipflops when climbing pyramids!

- **Sunshine:**

Be prepared for intense tropical sunshine at all locations. (In Mexico City the temperature is cooler, but the high altitude greatly increases the sunshine's intensity.) Bring sunscreen, a hat, and sunglasses with UV protection.

- **Clothes:**

Mexican women dress more conservatively than you might expect. Even in warm weather, short shorts and skimpy tops are quite uncommon. Please be aware that wearing such clothing may generate unwanted attention.

Using ATMs in Mexico

Here are some excellent safety tips regarding ATMs, courtesy of the Lonely Planet travel guides:

- Avoid ATMs at night and in secluded places.
- Some ATMs inside banks have security guards. If there's no guard around when you're withdrawing cash, watch your back, or get someone else to watch it for you.
- Watch the people using the ATM ahead of you carefully. If they look suspicious, go to another machine.
- If possible, try to find an ATM that does not suck your card into the machine.
- Take someone with you when you use the ATM. If your card gets jammed inside a machine then one person should stay at the ATM while the other seeks assistance.
- When you put your card into the ATM press cancel immediately. If the card is returned then you know there is no blockage in the machine and it should be safe to proceed.
- Politely refuse all offers of help from strangers to complete your transaction. If someone does offer, end your transaction immediately and find another machine.
- Carry your bank's emergency phone number, and if you do lose your card report it immediately.

Required Reading (to be completed *before* the travel portion of the course begins).

Aztec by Gary Jennings, Atheneum, New York, 1980. (Dr. Kahl will provide copies.)

Aztec is a New York Times bestselling novel in the historical fiction genre. It is exciting, suspenseful, and funny at times. The book's events take place in many locations throughout Mexico, including places we will be visiting. Despite the fictional story, the settings and historical contexts are remarkably accurate and provide an excellent introduction to Mexico in general. **You are required to read pages 1-249. Reading the entire book, however, is strongly recommended - you will enjoy it!** (NOTE: *Aztec* includes sexual themes that some may find offensive. If you are not comfortable with this, please contact Prof. Kahl to discuss alternative reading options.)

Grading for students taking the course as 497 for undergraduate credit:

10%: *Quiz on the required reading.* The quiz will be given on Day 2, the day before we leave for Mexico.

50%: *Attendance/participation in course activities.* This includes the site-specific orientation(s) and the academic and cultural activities described above in the detailed itinerary.

15%: *Meteorology lab exercise.* Due Monday February 3, two weeks after the travel portion of the course has been concluded. Please do not hand your exercise in late, as this will negatively affect your grade.

Details of the meteorology lab exercise. Students will collect a rain sample while in Mexico, measure its pH, and apply a state-of-the-art meteorological trajectory model to estimate the probable source(s) of pollutants contained in the rain sample.

Pre-travel component: During the pre-travel portion of the course, students will learn how to collect a rain sample, measure its pH, and apply a real-time atmospheric trajectory model to estimate the three-day pathway of air moving through the atmosphere.

During travel: Students will collect a rain sample and measure its pH.

Post-travel component: After returning home, students will apply the trajectory model to determine the atmospheric pathway and estimate the probable sources of the pollutants measured in their rain sample.

The exercise should be written up using standard lab report format, e.g.:

Title Page: This should be the first (cover) page of the report. Please include: 1. The title of the project. 2. The student's name. 3. The instructor or person for whom the lab report is being compiled. 4. The date on which the experiment was performed and/or the date the lab report was written.

Introduction: A general overview of the project including: 1. How precipitation gets polluted. 2. Why people care about pollutants in precipitation. 3. How meteorological methods can be used to estimate the pollution sources. 4. Project objectives (can be stated in the form of questions).

Materials and Methods: This section should contain a description, in your own words, of the experimental procedure that was followed in the performance of the experiment. The materials and methods section should be complete enough so that another student with the same background, but unfamiliar with the experiment, could perform the same experiment without additional instructions. Procedures and equipment used should be written in sentence form rather than lists. You may include photos/diagrams if you wish.

Results: The result section should contain raw data. Raw data consist of actual measured values recorded during the experiment, i.e. precipitation pH measurements and the trajectory model output (map). Again, feel free to include photos/diagrams.

Discussions and Conclusions: This is the interpretation-and-conclusion section of your report. Please include: 1. How the conduct of the experiment met the objectives. 2. Interpretation of the results. 3. Possible sources of errors. 4. Conclusions, including answers to all questions posed in the Introduction section. 5. The conclusions should be relevant to the experiment that was performed and should be based on the results of the experiment. 6. Any recommendations that you feel would improve the experimental procedure.

15%: *Trip journal/syllabus quiz*. Due upon arrival in Milwaukee at the end of the travel portion of the course.

The trip journal gives students the opportunity to provide *thoughtful reflection** on the complex issues related to the preservation of cultural artifacts. On most days during the travel portion of the course, students will be given questions or statements to address in their journal entries. Journal entries should include consideration of how these issues might be effectively used in the classroom. Some example questions:

- Can you observe any evidence of attempts by earlier Mesoamerican cultures to preserve past cultural heritage? If so, describe this evidence.
- Describe the efforts of park personnel in protecting the cultural heritage on display. Assess the effectiveness of these efforts. What more could be done?
- Describe your observations of tourists with respect to protection of the monuments. Did tourists respect the posted rules? Did you observe any instances of abuse?

On some days the questions will include next-day logistical topics. (Example: Where will the group be eating lunch tomorrow?)

In addition to handing in your written journal at the end of the trip, daily journal questions must be submitted electronically to Prof. Kahl *on the same day that they were assigned*. This can be done by sending a photo of your response to Prof. Kahl, or by a similar method. Please do not be late in submitting your daily responses, as this will negatively affect your grade. We will discuss possibilities at a site-specific orientation meeting.

* NOTE: The adjective *thoughtful* includes the following characteristics:
intellectual depth • exhibiting careful thought • showing good sense • giving close attention

10% *Presentation to University of Carmen students*. Working in assigned groups of two, students will prepare a 10-minute presentation on a topic, assigned by Prof. Kahl, relating to an environmental science issue in Wisconsin. The presentation should include electronic visual aids in the form of Powerpoint or the equivalent.

Your audience is rather unique - roughly 50% UWM people with varying levels of Spanish proficiency, and 50% Mexican students with varying levels of English proficiency. Some suggestions:

- Give a brief (2-3 minute) overview of the topic and spend the rest of the time diving deeper into one or two specific points.
- Make your slides image-heavy rather than text-heavy. Images can be understood in any language. Your audience is quite capable of multi-tasking - they can view images on the screen while listening to you speak.
- For text that does appear on your slides, provide both English and Spanish versions.
- If you or your presentation partner speaks Spanish, perhaps one of you can speak in Spanish and the other in English.

- Remember that the Mexican people in your audience probably are not experts on Wisconsin geography. Include maps.
- Personalize your presentation! Maybe one slide for you, one for your partner, showing images reflecting your personality.

Timeline:

- Oct. 26:** Assignment of presentation topic (at our first site-specific orientation meeting)
- Dec. 7:** Submit a draft presentation to Prof. Kahl electronically for comments and approval. This will consist of a typed outline and the Powerpoint file.
- Dec. 14** (the 'study day' before finals), 2:00 – 5:00 pm: Presentation review. This will take place in Prof. Kahl's office, EMS W435. Please stop by anytime during this period to give your presentation.

Grading for students taking the course as 297 for undergraduate credit:

- 5%: Quiz on the required reading (as described above).
- 60%: Attendance/participation in course activities (as described above).
- 15%: Meteorology lab exercise (as described above).
- 15%: Trip journal/syllabus quiz (as described above).
- 5%: Presentation (as described above).

Grading for students taking the course as 497 for graduate credit:

Students taking the course for graduate credit are required to complete an additional project. The project may be designed by the student, in consultation with Prof. Kahl. The project must have relevance to both the course content and to a topic of interest to the student. Approval of this option must be obtained before the beginning of the travel portion of the course.