Make lasting memories and bridge the generation gap by enjoying three days and two nights on the beautiful Michigan State University campus while learning side by side with your grandchild(ren) during the 13th anniversary of Grandparents University at MSU.

Registration will open on Wednesday, March 7 at 10 a.m. ET. Prior to registering, please review all details on the registration page at alumni.msu.edu/grandparents.

Some classes will offer multiple sessions throughout the three-day event. While every effort is made to ensure no changes happen, unforeseen circumstances may lead to a class cancellation or rescheduling. If this happens to a class you are registered for, you will be asked to pick a new class.
SESSION 1: TUESDAY, JUNE 26

100 A Smashing Time With Nuclei
24 Participants
See MSU’s National Superconducting Cyclotron Laboratory, a world-leading nuclear research facility. Get hands-on with a model “nucleus” to learn how and why we smash nuclei at half the speed of light, then tour the lab and find out what will change at the upcoming Facility for Rare Isotope Beams!

101 Air Gun
32 Participants
In this course participants will have hands-on experience shooting an Olympic-style air rifle and air pistol. The session includes a safety briefing and an introductory to shooting fundamentals.

102 Archery
22 Participants
Class will begin with a quick safety briefing and each person will be fitted with the proper safety gear and archery equipment. The MSU Archery Team will be instructing on the proper form for archery.

103 Cake and Cookie Decorating
16 Participants
This is a hands-on class where you will learn simple but fun decorating skills for cakes, cookies, and cupcakes.

104 Calming and Relaxation
25 Participants
Life gets busy and pretty hectic sometimes—wouldn’t it be nice to know some ways to keep calm and take a moment for yourself? In this class we will discuss different methods for relaxation. We will learn breathing exercises to help you through tough moments and make calming jars that you can take home. We will end our class with a muscle relaxation technique that will leave you feeling refreshed and renewed.

105 Cookie Decorating Basics
14 Participants
In this class, participants will learn how to decorate cookies utilizing a sugar icing. Learn how to flood, swirl, and make designs in this introductory class to fancy cookie decorating.

106 Creating Video Memoirs
24 Participants
In this session, attendees will learn some helpful skills for writing a brief memoir of their lives for their grandchildren: What do they wish to spotlight? How will they want to be remembered? Please note: participants must bring a laptop or tablet to use during this session.

107 Creating, Innovating, and Prototyping
20 Participants
Prototyping is a designer’s practice where quick sketches, drawings, and wireframes are developed for an idea, app, or product. In this session, we’ll talk about why designers prototype, and, more importantly, we’ll do some prototyping together to create a new, interactive app.

108 DNA Has Never Been Sweeter
30 Participants
Join us as we explore the wonders of DNA, a tiny molecule in all living things that encodes the message of life. We will figure out how much DNA it takes to make a person, how similar our DNA is to that of other animals and plants, and answer questions from the audience. Participants will get to play scientist as they extract DNA from fruit, and build DNA models out of candy.

109 EmpowHER Leadership Mini-Retreat
40 Participants
Empowering young women to become the confident community members we hope them to be as adults is no simple task. That’s why Kristin St. Marie and Lydia Weiss from the empowHER Leadership Retreat Executive Committee have created a workshop for inter-generational learning. Participants will gain an understanding of the issues that impact girls today, learn skills for breaking down barriers, and build a community of gratitude. Through hands-on activities and interactive learning models, participants will all leave feeling empowered!

110 Engineering Design with Straws and Tape
40 Participants
An introduction to engineering is provided through videos, dialogue, and hands-on activities. All participants will be able to actively build a tower of straws and tape that uses their ingenuity to soar to the ceiling and hold a set weight.
111 Explore the Fascinating World of Insects at the MSU Bug House

30 Participants
Learn about the amazing diversity and biology of insects and other arthropods. A short lecture/presentation will be followed by observing our displays of insects from around the world and the opportunity to see, touch, and hold some of our live beetles, cockroaches, tarantulas, and scorpions.

112 Exploring a Forest Community in MSU’s Sanford Natural Area

25 Participants
Join us as we explore a very special forest on MSU’s campus: Sanford Natural Area. You will learn common tree species that can be found there, and understand how the trees and other plants and animals interact to form a forest community.

113 Family Yoga

30 Participants
This class is an instructional course to teach you the fundamental poses of yoga and then flow through a short 20 minute yoga class.

114 First Lemonade Stand

24 Participants
Most successful entrepreneurs had early experiences in running their own business. Your business idea might be a lawn service, dog walking, babysitting, or even arts and crafts. This class introduces you to the idea of starting your own business for fun and profit.

115 Flavor Fanatics

30 Participants
What if sugar tasted like sand? What if lemon juice tasted like lemonade? Find out as we explore how taste and smell combine to produce the flavors of the foods we enjoy—with lots of hands-on investigation.

116 Folk Dancing Fun

50 Participants
Enjoy some time learning basic line, partner, circle, and square dances from all over the world. No experience necessary!

117 Geocaching in the MSU Horticulture Gardens

25 Participants
Learn the basics of the popular worldwide hobby of geocaching while touring the beautiful MSU Horticulture Gardens. You will learn what geocaching is all about and how to operate a basic GPS unit. We will then find up to 5 geocaches. Basic loaner Garmins will be provided, but if you have your own feel free to bring it. Please note: this class requires a lot of walking and is designed for those who have never geocached before or are new to the activity.

118 How to be an Ancestry Detective

40 Participants
In this class we will generate a family tree together and learn how to use free online tools available through your local library. Attendees will learn how to conduct family interviews and how to record multi-generational family traditions and memories.

119 How to Change the World in 30 Days

20 Participants
How often have you watched the news and thought, that shouldn’t happen! Or, If I ruled the world, I would ... This 90-minute class is your chance to identify a law or government policy that you want to change, a key policy maker who has influence, and the tools to make it happen. Participants will leave with an action plan and/or a letter to a policy maker.

120 Introduction to Robotics

24 Participants
There will be a short discussion of robot applications. Grandparents and grandchildren will then finish building a LEGO Robot. The robot will come alive when students program the robot to move.

121 Learn German With Technology | Lern Deutsch mit Technologie

30 Participants
Discover how computers can offer a fun way to learn about the German language and culture. We will play, listen, and speak online and also work on a group project.

122 Learning How to Design Video Games

20 Participants
In this class we will learn about pursuing video game development as a career. We will also talk about how to design a fun game, and we will even get the chance to work on designing our own games.
123 Life Beneath the Naked Eye
16 Participants
This session will highlight the use of a scanning electron microscope, which is a tool useful for research and education in science and engineering. We will examine insects and a variety of materials at high magnification to understand their structure and function. Children of all ages are invited to use a high powered microscope.

124 Make Your Own Biodiesel!
20 Participants
Learn more about sustainable alternatives to fossil fuels. Get introduced to bioenergy crops and prepare your own biodiesel from vegetable oil!

125 MSU Hockey
20 Participants
Learn about Munn Ice Arena and the Spartan hockey team facilities. Discover the history of famous NHL players and how they learned their trade as Spartan hockey players. You will hear about the off-ice training and how the Spartan hockey team coordinates their academics, community service, and hockey lives.

126 Open, Deep, Dark? What is Going on Online?
30 Participants
This course will provide a hands-on understanding of the way that the Internet is being misused by criminals, extremists, and nation-states around the world. We will learn the difference between what is on the Open Web, and pull the curtain back on the Dark Web so it is clear what it is and how it works.

127 Playful Polyhedra: Making Models and Paper Folding
30 Participants
Geometers have studied the mathematical beauty and symmetry of the Platonic solids for thousands of years. In this class we will investigate why there are only five Platonic solids, and then make these five Platonic solids in class. Students will take their polyhedra home at the end of the session.

128 Should Government Be Run Like a Business?
130 Participants
This class will start with the question: Why not let a business person have a chance to be President? Hear about three major reasons, economic and philosophical, why this is a complicated philosophy in a liberal democracy.

129 Sowing and Growing: The Art of Seedkeeping
12 Participants
What are the connections between poetry and planting? Join us as we read poems by female writers and make a variety of crafts related to land and plants.

131 Taste of Japan: Japanese Food Culture
20 Participants
Come learn about Japan and enjoy some delicious food! Learn how to roll your own sushi, practice eating with chopsticks, and explore Japanese culture. All participants will receive sushi rolling materials and other surprises to take home!

132 The Historical Student Experience at MSU: Dorm Life
25 Participants
Have you ever wondered what it was like to live on campus in the 20th century? What did students do for fun? What did they eat? What rules were they expected to follow (and did they)? Explore the history of student life at Michigan State with archivists from the MSU Archives. Grandparents will be encouraged to share their stories with us! The presentation will be followed by fun activities.

133 The Joy of Chemistry
175 Participants
This program will highlight the excitement of chemistry with a fun variety of demonstration exhibitions and hands-on activities. Thrill to the color-changing oscillating reaction! Make a magnet levitate using a superconductor! Do the chemiluminescent “Firefly” reaction! We'll close by doing a spectacular thermite reaction, which spews large amounts of molten iron. Participants will take home a sample of Spartan green Slime they will make themselves and will make tasty liquid nitrogen ice cream.

134 The Science of Optical Illusions
32 Participants
This class will have you seeing things! Participants will observe some mysterious illusions, such as holes through their hands and non-real colors. In the end, everyone gets to take home a little dinosaur that appears to watch you!
135 Thy Praises, MSU: University Traditions
Past and Present
75 Participants
From freshman beanies to Sparty Watch and the Midnight Scream, Michigan State has a long history of interesting traditions. Join us as we explore some of the practices that have defined the Spartan student experience over time.

136 Understanding How Our Brains Work:
Key Concepts and Interactive Learning
12 Participants
This class will teach about how our brains work and how the cells in the brains communicate with each other. This class will be a mix of talking about the brain, hands-on activities, and a question and answer session.

137 Watercolor Painting on Cold
Press Paper
20 Participants
Come and join a watercolor specialist, Sandi Shults, and learn the art of watercolor painting. Over the past 30 years of being an artist, Sandi has created an easy technique in watercolor painting for all ages to enjoy.

138 What are Spotted Hyenas?
21 Participants
Join the MSU Hyena Project in learning about these underappreciated animals? Learn to identify hyenas by their spots like a field scientist, see their skulls up close, and put yourself in the pawprints of a young male hyena leaving home.

139 Where Does Milk Come From?
25 Participants
Visit the MSU Dairy Teaching and Research Center and learn all about cows! This class will tour the farm, teach about the cow’s lifespan from birth to adult, what they eat, and how they are milked and cared for. Everyone will get to milk a cow and see our famous cows with a window in them. A dairy treat will be provided at the end of the tour.

140 Where Does Our Food Come From? The Amazing Honey Bee
40 Participants
A large portion of the world food supply is directly or indirectly affected by honey bee pollination. Learn about the honey bee, their impact on our food supply, and how we can help this amazing insect.

141 You Think You Know, But You Don’t ... Nor Can You! David Hume’s Skepticism
75 Participants
Does knowledge about the world come from the senses? If so, as David Hume argues, it is not possible to be rationally justified in believing anything at all about the world. This includes beliefs about yourself, right and wrong, God, and whether billiard balls cause each other to move!

SEE PAGE 17 FOR TUESDAY EVENING ACTIVITY OPTIONS

SESSION 2: WEDNESDAY, JUNE 27

200 Air Gun
32 Participants
In this course participants will have hands-on experience shooting an Olympic-style air rifle and air pistol. The session includes a safety briefing and an introductory to shooting fundamentals.

201 Archery
22 Participants
Class will begin with a quick safety briefing and each person will be fitted with the proper safety gear and archery equipment. The MSU archery team will be instructing on the proper form for archery.

202 Are You the Next Olympic Athlete?
Measuring Movement in Health and Disease
16 Participants
The session will introduce ways in which human movement and motor skill can be measured—and how these are being used in a wide range of applications—from improving performance in elite athletes to the rehabilitation of movement disorders.

203 Building Your Dream Community
40 Participants
This activity-based session will look at how the availability of resources impact communities. In teams, participants will build their own communities using Legos and other materials supplied. Each team will have different materials or “resources” available to them. Following the “building” phase, communities will be compared, and an interactive discussion will take place.
204 Cake and Cookie Decorating
16 Participants
This is a hands-on class where you will learn simple but fun decorating skills for cakes, cookies, and cupcakes.

205 Calming and Relaxation
25 Participants
Life gets busy and pretty hectic sometimes—wouldn’t it be nice to know some ways to keep calm and take a moment for yourself? In this class we will discuss different methods for relaxation. We will learn breathing exercises to help you through tough moments and make calming jars that you can take home. We will end our class with a muscle relaxation technique that will leave you feeling refreshed and renewed.

206 Campus Police K9
50 Participants
Observe MSU’s working dogs! The MSU Department of Public Safety will bring their K9s for you to meet while observing part of their training day.

207 Cash Conversations With the Credit Union
25 Participants
Do you know the similarities and differences between credit unions and banks? Have you been struggling to save money for something you really want? Join the MSU Federal Credit Union through an interactive journey to learn about financial institutions, the differences between needs and wants, the real cost of your wants, and how to save money to achieve your goals.

208 Chunky Monkey Cupcakes
25 Participants
Learn how to make the 2016 MSU award winning Chunky Monkey Cupcakes. Working together, you will learn how to make cupcake batter, peanut butter mousse, and chocolate ganache.

209 Cookie Decorating Advanced
14 Participants
Utilize advanced techniques to take your cookie decorating to the next level. Use stencils, piped designs, and layered icing to create amazing cookies for your friends and family to enjoy.

210 Crazy for Crêpes: Exploring a French Culinary Tradition
20 Participants
Crêpes are thin pancakes served as either snacks or meals, which are popular throughout the French-speaking world. In this course we will learn how to make them, enjoy the fruits of our labor, and learn a little French culture, history, and language along the way. All recipes will be included so you can enjoy these delicious Gallic goodies again at home.

211 Cross-Generational Positive Communication
30 Participants
At its root, communication presents a simple process of using words, sounds, or behaviors to exchange information. This process, however, can get clouded when those words and behaviors mean different things to different people, based on generational perspectives. The simple exchange of information may become filled with misunderstandings, causing communication breakdowns and widening the “generational gaps”. This is an interactive experience designed to help participants enhance their ability to provide positive insight and communication in a cross generational experience, relationship, and/or family.

212 Engineering Design with Straws and Tape
40 Participants
An introduction to engineering is provided through videos, dialogue, and hands-on activities. All participants will be able to actively build a tower of straws and tape that uses their ingenuity to soar to the ceiling and hold a set weight.

213 Experiences in Cardiovascular Mechanics Research
30 Participants
This session will provide experiences of biomedical technologies in cardiovascular mechanics research, such as navigating virtual 3D medical images, and building their own models using 3D printing.
214 Explore the Fascinating World of Insects at the MSU Bug House
30 Participants
Learn about the amazing diversity and biology of insects and other arthropods. A short lecture/presentation will be followed by observing our displays of insects from around the world and the opportunity to see, touch, and hold some of our live beetles, cockroaches, tarantulas, and scorpions.

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30 Participants
This class will be an instructional course to teach you the fundamental poses of yoga and then flow through a short 20 minute yoga class.

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24 Participants
Most successful entrepreneurs had early experiences in running their own business. Your business idea might be a lawn service, dog walking, babysitting, or even arts and crafts. This class introduces you to the idea of starting your own business for fun and profit.

217 Geocaching in the MSU Horticulture Gardens
25 Participants
Learn the basics of the popular worldwide hobby of geocaching while touring the beautiful MSU Horticulture Gardens. You will learn what geocaching is all about and how to operate a basic GPS unit. We will then find up to 5 geocaches. Basic loaner Garmins will be provided, but if you have your own feel free to bring it. Please note: this class requires a lot of walking and is designed for those who have never geocached before or are new to the activity.

218 Geodes: Hidden Quartz Treasures
100 Participants
What are geodes? How are they formed? Where are they found?

219 Got Violin?! It’s a Cool Tool!
18 Participants
We make learning the violin easy for you! Try a hands-on approach with the actual instrument in your hands. Take away the tune Twinkle, Twinkle Little Star to share with your friends.

220 Harry Potter and the Secrets of British English
30 Participants
Harry Potter is a young wizard whose adventures have been enjoyed by people across the globe. But Harry was brought to life by a British author, J.K. Rowling, and her world is full of prefects, sticky toffee puddings, and getting sorted into school houses. Learn about some of Harry’s culture and vocabulary, and the reasons why American English and British English have become different over time.

221 Having Fun With the Business Model Canvas
50 Participants
The Business Model Canvas is a great way that entrepreneurs start out with their idea to make sure that it is viable and that the people want it. This session will use the canvas but put a fun spin on it with the children’s ideas of a new company and how they can explore it with their grandparents.

222 History of Sparty
75 Participants
You have seen him at athletic events, in parades, around campus on game day, in ESPN commercials, at weddings, birthday parties, alumni club events, and promoting literacy to children in schools. He is everywhere; he is loved and he is an embodiment of what it means to be a Michigan State Spartan. Have you ever wondered how our beloved Sparty became the MSU icon he is today? In this session you will learn the origins of Sparty, the Sparty Mascot Program, and get a rare insiders look at what it is like to portray Sparty. There are many exciting aspects of the program that most Spartans do not have the opportunity to witness. Join us for an in depth look of Sparty, The Gentle Giant.

223 How do Pianos Work? An Introduction to Piano Technology
15 Participants
Learn the basic principles of piano design and construction, the physical properties of sound (acoustics), and how pianos create sound!
224 How to Change the World in 30 Days
20 Participants
How often have you watched the news and thought, *that shouldn’t happen!* Or, *If I ruled the world, I would...* This 90-minute class is your chance to identify a law or government policy that you want to change, a key policy maker who has influence, and the tools to make it happen. Participants will leave with an action plan and/or a letter to a policy maker.

225 Instrument Explorers
20 Participants
Do you know how to make a sound on the saxophone? Why the bassoon has many keys but the trumpet only has a few? Are your arms long enough to play the trombone? Find out as we explore brass, woodwind, and percussion instruments in this hands-on workshop.

226 Introduce a Girl to Engineering
25 Participants
Are you creative? Do you enjoy solving problems? Engineers — women and men — are changing the world through innovative design and research. Explore hands-on engineering activities. Learn how you can build engineering skills and aim for a great career! Ages 11 and up.

227 Just What’s in that Water? Exploring the Red Cedar River
30 Participants
What’s lurking in and around the river that runs through the MSU campus? Find out about the Red Cedar River and the fish, insects, and mammals that live in and around it. Identify live insects, learn how to filet a fish, and see and touch pelts of animals.

228 Life Beneath the Naked Eye
16 Participants
This session will highlight the use of a scanning electron microscope, which is tool useful for research and education in science and engineering. We will examine insects and a variety of materials at high magnification to understand their structure and function. Children of all ages are invited to use a high powered microscope.

229 Make Your Own Biodiesel!
20 Participants
Learn more about sustainable alternatives to fossil fuels. Get introduced to bioenergy crops and prepare your own biodiesel from vegetable oil!

230 Make Your Own Book!
16 Participants
Learn how to make your own book from a single sheet of paper without glue or staples! Six-page, eight-page, and fourteen-page books are some of the techniques we’ll teach you. Decorate your book with rubber stamps and illustrations from rare books in Special Collections.

231 My World of Coca-Cola
25 Participants
Coca-Cola! One of the most iconic, American brands in the world. Come join us for a history lesson on this and a chance to see a unique collection of Coca-Cola glass bottles!

232 Pickleball for the Family
16 Participants
Beginning instruction in Pickleball, which is the fastest growing sport in America. Grandparents and their grandchildren will leave the session with a working knowledge of the game and a desire to continue to play this great sport. Fun for all ages!

233 Pizza 101
40 Participants
Demonstration on how to prepare dough, how to handle dough, different methods of baking, and finally, each person gets to prepare their own pizza.

234 Ready, Set, Mush!
30 Participants
Participants will learn about sled dog racing and meet a retired Iditarod sled dog. This session will include a hands-on, minds-on, obstacle course in which participants have to complete several tasks in order to finish the race. Be ready to move and have fun while learning about the world of sled dogs. Some of this session will take place outside.

235 Running Cars on Plants
30 Participants
During this presentation, the audience will participate in an experiment investigating the process of fermentation in bags with baker’s yeast, warm water, and various sources of plant sugar. Participants will observe and measure evidence of the chemical changes associated with fermentation: bag inflation (CO$_2$) and indicators of ethanol production. A short presentation about the Great Lakes Bioenergy Research Center (GLBRC) and the importance of biofuels research and production will also be given.
236 Sketch, Doodle, and Draw Sparty
30 Participants
Learn to draw Sparty from a series of simple shapes. Circles, triangles, squares, and ovals are all you need to be able to draw to create Sparty!

237 South of the Border Cuisine
16 Participants
How to prepare and season the ingredients for tacos, nachos, homemade pico de gallo, and guacamole.

238 The Seasons-Planetarium Show
130 Participants
This class will give an overview of how the day and night sky change through the year. Students will predict and observe how the sun’s path changes over the year and learn how that relates to changing seasons. They will learn why we see different constellations through the year by looking from an earth and space-based perspective. Ages 8 to 10.

239 Tricking your Brain: Cognitive and Memory Illusions
30 Participants
In this session, we will demonstrate how your brain can be tricked, and do experiments to see whether children or adults’ brains are more easily fooled. Participants will learn about how psychologists study attention and memory, and how you can improve your skills at any age!

240 Understanding How Our Brains Work: Key Concepts and interactive Learning
12 Participants
This class will teach about how our brains work and how the cells in the brains communicate with each other. It will be a mix of talking about the brain, hands-on activities, and time for a question and answer session.

241 Watercolor Painting on Cold Press Paper
20 Participants
Come and join a watercolor specialist, Sandi Shults and learn the art of watercolor painting. Over the past 30 years of being an artist Sandi has created an easy technique in watercolor painting for all ages to enjoy.

242 Where do Sheep Come From?
25 Participants
Visit the MSU Sheep Teaching and Research Center and learn all about sheep! This class will tour the farm and learn about the sheep from birth to adult, what they eat, and how they are milked and cared for. Everyone will get to milk a sheep. A sheep treat will be provided at the end of the tour.

243 Writing With Rhythm and Rhyme
30 Participants
Deborah Diesen, author of The Pout-Pout Fish children’s book series, will help participants learn how to add rhythm and rhyme to their writing.

244 Zeke the Wonder Dog
50 Participants
Join the energetic Zeke as he shows his talents, which have captivated Spartan Stadium and Breslin Center crowds. Zeke’s handlers will show you easy tricks you can teach your pet.

245 Spartan Dollars and Cents
30 Participants
Let’s talk money! Through fun, hands-on activities, we will explore the world of finances and increase your money smart knowledge.

SESSION 3: WEDNESDAY, JUNE 27

300 A Smashing Time with Nuclei
24 Participants
See MSU’s National Superconducting Cyclotron Laboratory, a world-leading nuclear research facility. Get hands-on with a model “nucleus” to learn how and why we smash nuclei at half the speed of light, then tour the lab and find out what will change at the upcoming Facility for Rare Isotope Beams!

301 Air Gun
22 Participants
Participants will have hands-on experience shooting Olympic-style air rifle and air pistol. Session includes a safety briefing and introductory shooting fundamentals.
302 Animal Disease Detectives

**50 Participants**

Animals can’t tell you when they’re sick or point to where it hurts. Learn how veterinarians and laboratory technologists help to diagnose disease and protect both animal and human health. Participants will investigate and diagnose cases on their own.

303 Archaeology in MSU’s Backyard

*(3 hour session)*

**30 Participants**

This is a new version of the MSU Campus Archaeology Program past offering. We will focus on how archaeologists know what they know, and what kinds of things we can learn from doing archaeology on campus.

304 Archery

**32 Participants**

Class will begin with a quick safety briefing and each person will be fitted with the proper safety gear and archery equipment. The MSU archery team will be instructing on the proper form for archery.

305 Are You the Next Olympic Athlete?

**Measuring Movement in Health and Disease**

**16 Participants**

The session will introduce ways in which human movement and motor skill can be measured—and how these are being used in a wide range of applications—from improving performance in elite athletes to the rehabilitation of movement disorders.

306 Cake and Cookie Decorating

**16 Participants**

This is a hands-on class where you will learn simple but fun decorating skills for cakes, cookies, and cupcakes.

307 Calming and Relaxation

**25 Participants**

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Observe MSU’s working dogs! The MSU Department of Public Safety will bring their K9s for you to meet while observing part of their training day.

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**14 Participants**

Utilize advanced techniques to take your cookie decorating to the next level. Use stencils, piped designs and layered icing to create amazing cookies for your friends and family to enjoy.

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30 Participants
This session will provide experiences of biomedical technologies in cardiovascular mechanics research, such as navigating virtual 3D medical images and building their own models using 3D printing.

315 Explore the Fascinating World of Insects at the MSU Bug House
30 Participants
Begin with 20-30 minute presentation on morphology and biology of insects. Families will participate in a scavenger hunt to find answer to a selected bug question as they observe our displays. There will be opportunities to see, touch, and hold our live insects and arthropods. Session will end with families presenting the answer to their scavenger hunt question to the entire group with a short discussion about that insect fact by the instructor.

316 First Lemonade Stand
24 Participants
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324 Just What’s in that Water? Exploring the Red Cedar River
30 Participants
What’s lurking in and around the river that runs through the MSU campus? Find out about the Red Cedar River and the fish, insects, and mammals that live in and around it. Identify live insects, learn how to filet a fish, and see and touch pelts of animals.
325 Learning How to Design Video Games
20 Participants
In this class we will learn about pursuing video game development as a career. We will also talk about how design a fun game, and then we’ll work on designing our own games.

326 Life Beneath the Naked Eye
16 Participants
This session will highlight the use of a scanning electron microscope, which is tool useful for research and education in science and engineering. We will examine insects and a variety of materials at high magnification to understand their structure and function. Children of all ages are invited to use a high powered microscope.

327 Open, Deep, Dark? What is Going on Online?
30 Participants
This course will provide a hands-on understanding of the way that the Internet is being misused by criminals, extremists, and nation-states around the world. We will learn the difference between what is on the Open Web, and pull the curtain back on the Dark Web so it is clear what it is and how it works.

328 Pizza 101
40 Participants
Demonstration on how to prepare dough, how to handle dough, different methods of baking, and finally, each person gets to prepare their own pizza.

329 Running Cars on Plants
30 Participants
During this presentation, the audience will participate in an experiment investigating the process of fermentation in bags with baker’s yeast, warm water and various sources of plant sugar. Participants will observe and measure evidence of the chemical changes associated with fermentation: bag inflation (CO₂) and indicators of ethanol production. Also, a short presentation about the Great Lakes Bioenergy Research Center (GLBRC) and the importance of biofuels research and production will be given.

330 Should Government Be Run Like a Business?
100 Participants
Starting with the question: Why not let a business person have a chance to be President? Learn about three major reasons, economic and philosophical, why this is a complicated philosophy in a liberal democracy.

331 Sowing and Growing: The Art of Seedkeeping
12 Participants
What are the connections between poetry and planting? Join us as we read poems by female writers and make a variety of crafts related to land and plants.

332 Spartan Dollars and Cents
30 Participants
Let’s talk money! Through fun, hands-on activities, we will explore the world of finances and increase your money smart knowledge.

333 The Science of Optical Illusions
32 Participants
This class will have you seeing things! Participants will observe some mysterious illusions, such as holes through their hands and non-real colors. In the end, everyone gets to take home a little dinosaur that appears to watch you!

334 Theatre Games and Improvisation
40 Participants
This fast-paced, accessible, and fun workshop will explore a series of easy theatre games and improvisational activities for both novice and experienced learners. A variety of games and activities will lend insight into improvisation and acting on a Wharton Center stage!

335 Tricking your Brain: Cognitive and Memory Illusions
30 Participants
In this session, we will demonstrate how your brain can be tricked, and do experiments to see whether children or adults’ brains are more easily fooled. Participants will learn about how psychologists study attention and memory, and how you can improve your skills at any age!

336 Watercolor Painting on Cold Press Paper
20 Participants
Come and join a watercolor specialist, Sandi Shults and learn the art of watercolor painting. Over the past 30 years of being an artist Sandi has created an easy technique in watercolor painting for all ages to enjoy.
337 What are Spotted Hyenas?
21 Participants
Join the MSU Hyena Project in learning about these underappreciated animals? Learn to identify hyenas by their spots like a field scientist, see their skulls up close, and put yourself in the pawprints of a young male hyena leaving home.

338 Where do Sheep Come From?
25 Participants
Visit the MSU Sheep Teaching and Research Center and learn all about sheep! This class will tour the farm and learn about the sheep from birth to adult, what they eat and how they are milked and cared for. Everyone will get to milk a sheep. A sheep treat will be provided at the end of the tour.

339 Where Does Our Food Come From? The Amazing Honey Bee
40 Participants
A large portion of the world food supply is directly or indirectly affected by honey bee pollination. Learn about the honey bee, their impact on our food supply and how we can help this amazing insect.

340 You Think You Know, but You Don’t...Nor Can You! David Hume’s Skepticism
75 Participants
Does knowledge about the world come from the senses? If so, as David Hume argues, it is not possible to be rationally justified in believing anything at all about the world. This includes beliefs about yourself, right and wrong, God, and whether billiard balls cause each other to move!

341 Zeke the Wonder Dog
50 Participants
Join the energetic Zeke as he shows his talents, which have captivated Spartan Stadium and Breslin Center crowds. Zeke’s handlers will show you easy tricks you can teach your pet.

SESSION 4:
THURSDAY, JUNE 28

400 Air Gun
32 Participants
Participants will have hand-on experience shooting Olympic-style air rifle and air pistol. Session includes a safety briefing and introductory shooting fundamentals.

401 Archery
22 Participants
Class will begin with a quick safety briefing and each person will be fitted with the proper safety gear and archery equipment. The MSU archery team will be instructing on the proper form for archery.

402 Bad Astronomy-Planetarium Show
130 Participants
Were the Apollo visits to the Moon actually a hoax? Have aliens landed on Earth? Can you tell your future by the stars? Prepare to debunk and tackle pseudoscience head-on with this planetarium show. Based on the popular book and website of the same name, this show offers a unique and fun approach to learning about the cosmos. Join the Bad Astronomer Phil Plait as he takes a critical look at popular myths and misconceptions to show audiences how science can be used to evaluate questionable claims.

403 Bucket Band
35 Participants
Come play and create music! Using buckets we can compose and play our very own music. No prior musical experience needed.

404 Building Your Dream Community
40 Participants
This activity-based session will look at how the availability of resources impact communities. In teams, participants will build their own communities using Legos and other materials supplied. Each team will have different materials or “resources” available to them. Following the “building” phase, communities will be compared, and an interactive discussion will take place.

SEE PAGE 18 FOR THE WEDNESDAY EVENING ACTIVITY
405 Calming and Relaxation

25 Participants
Life gets busy and pretty hectic sometimes—wouldn’t it be nice to know some ways to keep calm and take a moment for yourself? In this class we will discuss different methods for relaxation. We will learn breathing exercises to help you through tough moments and make calming jars that you can take home. We will end our class with a muscle relaxation technique that will leave you feeling refreshed and renewed.

406 Cash Conversations with the Credit Union

25 Participants
Do you know the similarities and differences between credit unions and banks? Have you been struggling to save money for something you really want? Join the MSU Federal Credit Union through an interactive journey to learn about financial institutions, the differences between needs and wants, the real cost of your wants and how to save money to achieve your goals.

407 Cookie Decorating Basics

14 Participants
In this class, participants will learn how to decorate cookies utilizing a sugar icing. Learn how to flood, swirl, and make designs in this introductory class to fancy cookie decorating.

408 Crazy for Crêpes: Exploring a French Culinary Tradition

20 Participants
Crêpes are thin pancakes served as either snacks or meals, which are popular throughout the French-speaking world. In this course we will learn how to make them, enjoy the fruits of our labor, and learn a little French culture, history, and language along the way. All recipes will be included so you can enjoy these delicious Gallic goodies again at home.

409 Creating, Innovating, and Prototyping

20 Participants
Prototyping is a designer’s practice where quick sketches, drawings, and wireframes are developed for an idea, app, or product. In this session, we’ll talk about why designers prototype, and, more importantly, we’ll do some prototyping together to create a new, interactive app.

410 Egg Drop Experiment

50 Participants
Participants will learn about how packaging is used to contain, protect, and provide utility to its product and the consumer. In this session, each participant will be given materials to design their very own egg package and then put their design to the test. Students will do a hands-on drop test using traditional dynamic testing equipment. The session is a fun and energetic introduction to the importance of the science of packaging!

411 Egg Drop Experiment

50 Participants
Participants will learn about how packaging is used to contain, protect, and provide utility to its product and the consumer. In this session, each participant will be given materials to design their very own egg package and then put their design to the test. Students will do a hands-on drop test using traditional dynamic testing equipment. The session is a fun and energetic introduction to the importance of the science of packaging!

412 Engineering Design with Straws and Tape

40 Participants
An introduction to engineering is provided through videos, dialogue, and hands-on activities. All participants will be able to actively build a tower of straws and tape that uses their ingenuity to soar to the ceiling and hold a set weight.

413 Explore the Fascinating World of Insects at the MSU Bug House

30 Participants
Learn about the amazing diversity and biology of insects and other arthropods. A short lecture/presentation will be followed by observing our displays of insects from around the world and the opportunity to see, touch, and hold some of our live beetles, cockroaches, tarantulas, and scorpions.

414 Geodes: Hidden Quartz Treasures

100 Participants
What are geodes? How are they formed? Where are they found?
415 Having Fun With the Business Model Canvas
50 Participants
The Business Model Canvas is a great way that entrepreneurs start out with their idea to make sure that it is viable and that the people want it. This session will use the canvas but put a fun spin on it with the children’s ideas of a new company and how they can explore it with their grandparents.

416 History of Sparty
75 Participants
You have seen him at athletic events, in parades, around campus on game day, in ESPN commercials, at weddings, birthday parties, alumni club events, and promoting literacy to children in schools. He is everywhere; he is loved and he is an embodiment of what it means to be a Michigan State Spartan. Have you ever wondered how our beloved Sparty became the MSU icon he is today? In this session you will learn the origins of Sparty, the Sparty Mascot Program, and get a rare insiders look at what it is like to portray Sparty. There are many exciting aspects of the program that most Spartans do not have the opportunity to witness. Join us for an in depth look of Sparty, The Gentle Giant.

417 How to Change the World in 30 Days
20 Participants
How often have you watched the news and thought, that shouldn’t happen! Or, If I ruled the world, I would ... This 90-minute class is your chance to identify a law or government policy that you want to change, a key policy maker who has influence, and the tools to make it happen. Participants will leave with an action plan and/or a letter to a policy maker.

418 Law and Order: MSU
50 Participants
Do you ever wonder whether laws are important, or what would society look like without them? In this session, you’ll explore the role of laws in society and think about how laws affect our everyday lives. You’ll also play games where you create your own laws, and participate in the mock trial of a famous character!

419 Life Beneath the Naked Eye
16 Participants
This session will highlight the use of a scanning electron microscope, which is tool useful for research and education in science and engineering. We will examine insects and a variety of materials at high magnification to understand their structure and function. Children of all ages are invited to use a high powered microscope.

420 Make Your Own Book!
16 Participants
Learn how to make your own book from a single sheet of paper without glue or staples! Six-page, eight-page, and fourteen-page books are some of the techniques we’ll teach you. Decorate your book with rubber stamps and illustrations from rare books in Special Collections.

421 Once Upon a Doc
30 Participants
Come learn about the benefits of Osteopathic Medicine (OM) as a way of healing the body through hands-on techniques and interacting with current MSUCOM medical students. The primary philosophy of OM is to treat the body through a system of therapy known as Osteopathic Manipulative Medicine (OMM). Join us for a demonstration!

422 Physics is Fun!
250 Participants
Come and see exciting physics demonstrations about the most important physical laws governing our world.

423 Pickleball for the Family
16 Participants
Beginning instruction in Pickleball, which is the fastest growing sport in America. Grandparents and their grandchildren will leave the session with a working knowledge of the game and a desire to continue to play this great sport. Fun for all ages!

424 Ready, Set, Mush!
30 Participants
Participants will learn about sled dog racing and meet a retired Iditarod sled dog. This session will include a hands-on, minds-on, obstacle course in which participants have to complete several tasks in order to finish the race. Be ready to move and have fun while learning about the world of sled dogs. Some of this session will take place outside.
425 Sketch, Doodle, and Draw Sparty
30 Participants
Learn to draw Sparty from a series of simple shapes. Circles, triangles, squares, and ovals are all you need to be able to draw to create Sparty.

426 Sowing and Growing: The Art of Seedkeeping
12 Participants
What are the connections between poetry and planting? Join us as we read poems by female writers and make a variety of crafts related to land and plants.

427 The Geography and Evolution of Lake Michigan Coastal Dunes
50 Participants
This session will focus on the origin and evolutionary history of Lake Michigan coastal dunes. It will present research findings that document a complex history of formation and change of this iconic landscape for the past 5,000 years.

428 Thy Praises, MSU: University Traditions Past and Present
75 Participants
From freshman beanies to Sparty Watch and the Midnight Scream, Michigan State has a long history of interesting traditions. Join us as we explore some of the practices that have defined the Spartan student experience over time.

429 Understanding How Our Brains Work: Key Concepts and Interactive Learning
12 Participants
This class will teach about how our brains work and how the cells in the brains communicate with each other. It will be a mix of talking about the brain, hands-on activities, and time for a question and answer session.

430 Cross Generational Positive Communication
30 Participants
At its root, communication presents a simple process of using words, sounds or behaviors to exchange information. This process, however, can get clouded when those words and behaviors mean different things to different people, based on generational perspectives. The simple exchange of information may become filled with misunderstandings, causing communication breakdowns and widening the “generational gaps”. This is an interactive experience designed to help participants enhance their ability to provide positive insight and communication in a cross generational experience, relationship, and/or family.

431 Watercolor Painting on Cold Press Paper
20 Participants
Come and join a watercolor specialist, Sandi Shults and learn the art of watercolor painting. Over the past 30 years of being an artist Sandi has created an easy technique in watercolor painting for all ages to enjoy.

432 Where Does Milk Come From?
25 Participants
Visit the MSU Dairy Teaching and Research Center and learn all about cows! This class will tour the farm, learn about the cow's lifespan from birth to adult, what they eat, and how they are milked and cared for. Everyone will get to milk a cow and see our famous cows with a window in them. A dairy treat will be provided at the end of the tour.
TUESDAY, JUNE 26
EVENING ACTIVITIES

Bad Astronomy @ the MSU Planetarium
Were the Apollo visits to the Moon actually a hoax? Have aliens landed on Earth? Can you tell your future by the stars? Prepare to debunk and tackle pseudoscience head-on with this planetarium show. Based on the popular book and website of the same name, this show offers a unique and fun approach to learning about the cosmos. Join the “Bad Astronomer” Phil Plait as he takes a critical look at popular myths and misconceptions to show audiences how science can be used to evaluate questionable claims.

Art Party at the MSU Broad
Children and grandparents are invited to MSU’s contemporary art museum for a night of curiosity and creativity! There is something for everyone, including self-guided gallery tours, conversations with roving docents, and drop-in art activities. Don’t miss this evening of creative fun!

Bug House (2 sessions)
Join the experts at the MSU Bug House as they give an introduction to insects, how they develop and how they relate to other arthropods. Participants will have the opportunity to view displays of insects as well as view and handle live insects and arthropods.

Free Time!
Play games in the lobby, hang out in the local Sparty’s, explore campus, or walk to the Dairy Store and enjoy ice cream! This will give you the time to do things and visit the places on campus you don’t normally get to see.

Geodes: Hidden Quartz
What are geodes? How are they formed? Where are they found?

Movie
Enjoy snacks while sitting back and enjoying a family friendly movie.

MSU Pompon
Get up and get moving with the MSU Pompon team — 2017 Collegiate Champs! Learn about the importance of staying active every day. The team will lead a fun warm-up routine followed by a short pompon routine instruction. Time to show off your true Spartan Spirit!

MSU Spartan Marching Band Color Guard
Come join the coach and members of the Spartan Marching Band Color Guard for an evening of fun! Learn how to spin a flag, and complete a routine set to a fun song.

Mush! Dog Sledding and Training
Musher and educator Tasha Stielstra will highlight the world of sled dog training and racing in Michigan’s Upper Peninsula. Tasha will teach you about sled dogs and how they work together as a team. You will learn the rules of mushing, get to meet a real Alaskan Husky and watch as our model sled dog team works together. Sit back and relax during this entertaining and interactive presentation.

Wheelchair Floor Hockey
Attention hockey fans of all abilities! Come and experience the rules, participate in drills, and play in an exciting wheelchair hockey game. Wheelchair hockey is a fun and competitive game based on the use of wheelchairs on a gymnasium floor. Learn more about this sport, and how the modified ice hockey rules help to enable people with disabilities to play hockey and be active in a competitive setting. This class is open to everyone—power wheelchair and manual wheelchair users, as well as ambulatory persons with disabilities, and able-bodied individuals (sport wheelchairs will be provided for those who need them). All power wheelchair users please be sure to charge your power wheelchair the night before so that it is ready for end-to-end wheelchair hockey action!

Open Gym: Basketball
Enjoy playing basketball in the lower gym of IM Circle.

Open Swim
Spend the evening cooling off in the swimming pool at IM West. Please bring your ID badge, swimsuit, and a towel.
Green and White Night

Green and White Night is an exciting experience encompassing grandparents and their grandchildren within the culture of MSU’s clubs and sports teams — all while enjoying delicious food prepared by MSU’s Culinary Services team. Throughout the evening, enjoy watching performances and playing games together, helping to create family memories that last a lifetime.

Science Theatre

Learn and be amazed by this exciting and interactive theater-style show! Watch and participate in fun science experiments!

Sweets, Treats, and Games

Enjoy spending time playing board games, cards, and building puzzles while enjoying snacks and drinks that are provided.

Improve Your Physical Therapy IQ

Discover how physical therapists help people improve their ability to move, perform daily activities, recover from injury and live a healthy, active lifestyles. Get up and get active! Learn and perform treatments commonly used in physical therapy for a variety of medical conditions.

Music in the W. J. Beal Botanical Garden

Each summer, the MSU College of Music hosts a free concert series called “Music in the Garden.” The W. J. Beal Botanical Garden plays host to select student groups presented by the MSU College of Music. These 1-hour concerts happen rain or shine (rain location is the Music Building, 333 W. Circle Drive), and the MSU Food Truck and free Dairy Store ice cream (while supplies last) is on site for the audience to enjoy while they listen to the music! Join us with your blanket or lawn chair and enjoy the ambience of music and garden flora during this outdoor concert series.

Historic Trees of the W. J. Beal Botanical Garden

Join assistant curator Peter Carrington immediately after the Music in The Garden concert for a walking tour of truly historic trees that have shaped the heritage of the W. J. Beal Botanical Garden. One of these trees was of a species known only from fossils before being discovered in a remote valley in western China, and ours is from the very first batch of seed to arrive in the west. One is amongst the oldest of its kind in North America. The tour starts at approximately 8:10, right after the music ends, and continues for about 45 minutes.
THANK YOU

Grandparents University would not be possible without the dedication and hard work of the following units and sponsors.

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