Announcer: The Missouri State Journal, a weekly program keeping you in touch with Missouri State University.

Emily Yeap: August 21st, 2017. This is the day when the skies across North America will darken in the afternoon as the moon passes between the Earth and the sun. This great American solar eclipse of 2017 will be the first total solar eclipse in the continental United States in 38 years. In Springfield, Missouri, there will be 96% coverage, with the maximum being at 1:13 pm. Missouri State University will help to share this rare and momentous occasion with the public at a free family-friendly event on campus. I'm Emily Yeap.

Becky Baker, senior instructor in the department of physics, astronomy and materials science at MSU, joins me today to shed more light on the solar eclipse and the upcoming event.

Speaker 1: Exactly what is going on during this solar eclipse day is we have the earth that is going around the sun and our only natural satellite around the earth is the moon. Well, every month you have a new moon and you have a full moon, but every once in a while, everything lines up just perfect so that even though the moon is much, much smaller, it actually goes ahead and travels between the earth and our sun. When we see that, then we actually get the shadow of the moon that is moving across the surface of the earth, and so we have an eclipse because what's being eclipsed is the sun and it's being eclipsed by the moon. At the time of totality, then you should be able to hear birds singing, you should notice that, yes, it is noticeably darker, and you should feel a little bit cool for the fact that the sun is not quite as bright as what it was shortly before this happened. Totality should last right there in the middle of about a minute, a minute and a half, something like that.

Emily Yeap: The event will take place at MSU's Plaster Stadium and doors open at 10 a.m. Various activities are scheduled.

Speaker 1: Obviously, the coolest thing that's going to happen is going to be at 1:13, when we have the maximum coverage of the sun by our moon. We're going to be covered by about 96%. We start out at about 11:44, and that's when the moon first moves across the disc of the sun. We're going to be celebrating that activity.

We've got all kinds of science events planned, we've got demonstrations planned, all relating to solar eclipses, as well as lunar eclipses. We've got a cosmic art walk, so you'll get a chance to walk through the cosmos there. We've got demonstrations for everybody. We've got display tables from various organizations here in town that deal with science, specifically then looking at the eclipse.

Then we've got President Smart then going ahead and kicking off our event when we look at that beginning part of the moon moving across the sun. He'll be there, as well as Dr. Jahnke, who is the dean of College of Natural and Applied Science. We have some really cool activities to kick that off.

We're going to be doing a moonwalk demonstration and make sure everybody learns how to do a moonwalk. Then, like I said, our maximum coverage is about 1:13, and then we'll go ahead and see the sun gradually reappearing on the other side. We should hit right around 2:44 when it's over, as far as when the moon actually comes out from the sun. Our event will be over closer to about 2:10, so we won't get to see it completely come out.

Emily Yeap: Organizers have up to 10,000 free viewing glasses to give to guests to watch the eclipse safely.

Speaker 1: These are glasses that are designed specifically to look at the sun, so we know they're certified, your eyes are going to be fine, there's not going to be a problem. But remember, we want to make sure that if you are looking at the eclipse, you do have your eyes protected. People think that because it's going to get a little bit darker, you look up there, but it can still do damage to your eyes. Come out and celebrate the sun with us. This does not happen all that often, so join us. We'll give you some glasses that you will get to keep.

Emily Yeap: As it is expected to be a hot day, guests are encouraged to bring their down drinking cups. Concessions will also be open. Free parking is available at Hammons Field lot, and shuttles will be provided. For more information, contact Baker at 417-836-5131 or visit physics.missouristate.edu. I'm Emily Yeap for the Missouri State Journal.

Speaker 3: For more information, contact the Office of University Communications at 417-836-6397. The Missouri State Journal is available online at KSMU.org.