Hello and thank you for being here to learn about your possible career pathways in your journey through Engineering and Computing. My name is Yadéeh Sawyer my main job at the Engineering Student Success Center at UNM focused on Student Engagement and Retention. So, that means I have to engage with people! Which is great, because I don’t want to talk AT people. I much prefer WITH people. And yes, I am aware you are watching me on a video, but that doesn’t mean we can’t connect in some way. So, when you see (*) this symbol, I want you to mentally engage, think of what your answer is to the question I ask. And then take your answers and talk to your friends and family about them! So let’s practice right now – if you had to decide right now what to do in your next step of life and your educational adventure, what would it be? Be specific. For example, if you are in middle school, don’t say to go High School, but where, why and what do you want to experience while you are there. If you are in High School, not just go to college, but for what major? Or if you say work, doing what? Travel – where?

Great! Keep your answer in mind and let’s get started.
Even though I’m focusing the presentation on options for Engineering and Computer Science, most of the information applies to any field of interest. Anyone who goes to school starts in Elementary school, then middle school, and finish out their required education in High School, or the equivalent (for example, in Mexico the final step is Secondary School). So, that is where the next step of our journey comes in and where we really have to start making our own decisions of where we want our life to take us. Not to spoil the ending, but all paths lead to the working world, so make the most of the journey. Even if you get the opportunity to travel at any point, you still end up there.

(*) So, from HS, you can go into the workforce. But there are also a lot of options when it comes to continuing your training or education.

(*) You can go to a trade, tech, or vocational school. This option gives you the technical skills to prepare you for a very specific occupation through a more hands-on approach than the other options you’ll see in a moment. These usually take about 1 – 2 years and are very focused on getting you trained in the specific skillset, rather than core, foundational, or supportive information.

(*) or to a community college. Many students choose this as their first step to help keep costs down or bring up their GPA. An alternative to this is to take Dual Enrollment classes while you are in High school.
Either way, if you finish up at a community college, it can lead to you to working or first an associate’s degree – a 2 year degree, and only some fields have them which can also end in the workforce. But let’s hope you come to us at UNM – a University. Either straight from HS or from a community college before or after you get an associates degree. A Bachelors degree takes about 4 or 5 years. While you are here, take advantage of the opportunities to transition into the workforce while you are still in school through research experience, internships, and fellowships. From the University you can go to the workforce or graduate school where you can also get that hands-on experience before moving on from graduate school to the workforce. And, as you’ll see with some of the graduate school options, if you went the trade, tech, or vocational route, you can always continue your education by joining back in at either the community college or university pathway, and a benefit when looking for a job is you already have that hands-on experience, too.

So, I’ve mentioned graduate school a few times now, what do I mean by graduate school?
If you don’t get an advanced degree, it may limit your salary or possible position, so it is important to know your end goal, what job do you want and what degree does that need? Go to graduate school if you need or want it, but not just because you think you should. Especially the PhD route.

(*) So, like I said, after you get your Bachelor’s degree, you can go straight into the work force.
(*) You can also get a Masters of Engineering. This is usually a course based or practice-based Master’s degree that can take 1 – 2 years to complete and is best if you want to go into working in industry.
(*) From your ME, you usually go into the work force,
(*) but can also go back for your PhD if you later decide that is the best pathway for you.
(*) If you want to go into the research or academic sector, then going the route of a Master of Science is probably the better option. This is a research based Masters degree that takes about 2 years to complete.
(*) From there, you can go into the workforce,
(*) or take your formal education one step farther and get your PhD. A PhD is a researched based Doctorate degree that takes 4 – 7 years. But, when you graduate
with this degree, people have to call you Doctor, but not a medical doctor. I joke with my friend who has her daughter call me Ms. Yadéeh by saying “That’s Dr. Yadéeh to you” 😊

(*) In some cases, you can also get your PhD straight from undergrad, but that depends on the school and you should know and weigh all your options before going this route.

(*) Once you have your PhD, you then go either directly into the work force

(*) Or, you get a post-doc position. These can last anywhere from 1 year to as many as you feel helpful to keep you busy and gain additional experience and advance your qualifications before settling down in the work-force, which then the obvious path after a post-doc is

(*) into the work force. Again, this depends on what you want your career to be.

(*) But, let’s also not forget about the Professional School options.

(*) what do I mean about professional school? And, how is that different than graduate school?
These are options that admit cohorts that all take the same courses, and then have some form of board exam for admittance into the professional working world.

Many students complete their engineering degree and go on to complete a second degree to set themselves apart. The two most common professional schools for Engineers are Law and Medicine. With law, for example, you can do patent law, which requires field specific knowledge, or something like environmental law if you are interested in environmental engineering. Medical schools really like engineers, because there is something in the way you think that helps you be a successful doctor.

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Now, what about the work force? What do I mean by work force? What are the options? It is important to go the route that fits you best. Do NOT do it just for the money.

(*) Government: Working for the city, county, state, or federal government – for example the DOD, DOE, FWS, FS and so many more, this also includes working for the National Labs like Sandia and the Air Force Research Lab here in Albuquerque. These jobs usually have high job security, a slow hiring process, most people stay in this sector their entire career, there is a high degree of bureaucracy, and includes additional non-technical duties. Government work also includes the military.

(*) All branches of military service recruit officers with a technical background. Military officers will apply their technical background but the primary function of an officer is leadership. Many technical officers leave active duty after 20 years and then work as a civilian for a military service.

(*) Entrepreneur: Start your own business, this is where a Professional school business degree is helpful. These jobs have a high degree of autonomy and uncertainty. You may be highly compensated...or not. Must people develop keen business skills in addition to your technical skills.

(*) Private Sector – for profit: most industry jobs, but can also include contract jobs
with the government, and self-employment. These charge others for their services. These are fast pace, high pressure, longer hours, most people transition between several employers over their career, and include high compensation.

(*) Private Sector – non-profit: are similar to industry jobs, but function as non-profits, meaning the usually seek out donors to fund their mission, rather than charging for a service. This option has a lower compensation than for-profit firms, but also have lower pressure and demands.

(*) But, we can’t forget about Academia – that is working in education to some extent. This can be either Government if you are working for a public school or university, like UNM, or a private sector if for a private school or university. At the University level, these positions are extremely competitive – in most cases you must earn tenure within a short period of time or be fired – the “publish or perish” idea. You spend a lot of time spent writing proposals, writing papers and supervising graduate students.
Great, so now you know exactly what path you want to take...but....WHAT do you want to study at each step of the way? For that check out the resources we on our website, or come chat with us at ESS.

(*) But, before I do, to wrap up, think about one or two take-aways from this part of the video. If you want to reach out at any time, here’s my contact info – yadeeh@unm.edu or 505-277-9151.

(*) Wait, don’t forget to follow us on social media so you can find out about all the great opportunities we have for you, even now! Thanks again for listening to me and I hope I see you around at UNM soon.