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STATE OF NEVADA

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Brian L. Mitchell  
Director

**PUBLIC MEETING MINUTES**

Name of Organization: STEM Advisory Council  
Date and Time of Meeting: Tuesday, September 10, 2019 @ 4:00 PM  
Place of Meeting: Nevada State Library and Archives  
100 North Stewart Street - Boardroom  
**Carson City, NV 89701**

Grant Sawyer State Office Building  
Governor's Conference Room – Suite 5100  
555 East Washington Ave  
**Las Vegas, NV 89101**

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**1. Call to Order / Roll Call**  
Co-Chair Mark Newburn

**Members Present:**  
Andrew Snyder  
Bob Potts  
Camille Stegman  
Chris Sewell  
Judy Kraus  
Kristen Averyt  
Mark Newburn, Co-Chair

**Members Absent:**  
Kelly Barber, Co-Chair  
Richard Knoeppel  
VACANT SEAT 1  
VACANT SEAT 2

VACANT SEAT 3  
VACANT SEAT 4  
VACANT SEAT 5  
VACANT SEAT 6

**Staff Present:**

Brian Mitchell  
Debra Petrelli  
Tracey Gaffney

**Guests Present:**

Kalie Work, Washoe County Recorder

- 2. Public Comment** (No action may be taken upon a matter raised under public comment period unless the matter itself has been specifically included on an agenda as an action item.)

There was no public comment.

- 3. Welcoming Remarks and Announcements** (For information only)  
Co-Chair Mark Newburn

Co-Chair Newburn welcomed everyone. He commented he has received a lot of interest in the new STEM license plate, which will be discussed further in item 5.

- 4. Approval of the Minutes from the April 8, 2019 Meeting** (For possible action)  
Co-Chair Mark Newburn

Co-Chair Newburn pointed out with six council-member seats currently vacant and two members absent today, a quorum is not present to take action on this item and will be tabled until the next meeting.

- 5. 2019 Legislative Debriefing on SB402 and SB313 Including a Discussion on Potential Requirements and Priority Areas of the STEM License Plate Grant** (For information only)

Brian Mitchell  
Mark Newburn

Mr. Mitchell gave a recap on SB402. He said the bill did four things; 1) established a new STEM license plate; 2) funded K-5 STEM grant programs; 3) funded regional STEM hubs; and 4) made several statutory changes to the STEM recognition events.

Mr. Mitchell said the design for the license plate began, based on the STEM Advisory Council's logo, just after the legislative session ended. He said it has now been approved through the Department of Motor Vehicles (DMV) process, as well as approved by the Nevada Highway Patrol (NHP). He said the plate is now in production and will be ready on October 1, 2019. He commented that several members of the council have already shown interest in getting one of the first 100 plates, which he has been authorized to

award and asked that any others interested to please contact him. He further discussed the revenue that will be received from the sale of the license plates and pointed out that because this is a specialty plate an additional fee will be collected by DMV, and those proceeds from the sales will go to the STEM Advisory Council who will then develop a grant program to increase interest and awareness in STEM and STEM careers with a particular focus on underrepresented populations. He said once there is an accumulation of funds, the council can release a solicitation for those grants. He added there really is no way to know how much funding this program will bring in, however by continued “word-of-mouth” about the program and continued sales, hopefully this grant funding will grow substantially.

Mr. Mitchell asked what requirements or priority areas the council would like to see funded with the license plate grant funding. He added he is often asked for small dollar grants to fund school district STEM events with bus transportation for students, as well as student t-shirts promoting those STEM events. He said his intention for this grant is to go towards these types of programs, with a school district being the applicant. He pointed out it could also include non-profit type organizations or even higher education that would like to sponsor camps or groups that raise interest and awareness in STEM. Ms. Stegman suggested using some of the funding for research as to why certain demographic groups drop out after they enter into higher education, who have clearly been excited when they first enter to pursue their STEM career education but are not exiting with those degrees. She said she recently attended a meeting at UNR for Women in STEM, which had a discussion on the existing problem of girls getting into college seeking to pursue STEM, only to decide the higher-level courses are quite difficult and giving it up.

Mr. Potts asked whether an administrative fee will be taken out of the fee collected by DMV for the license plate or whether the entire amount will go towards STEM funding. Mr. Mitchell responded there are no extra fees taken out and the full amount will go into the STEM fund. Mr. Potts suggested they wait to see what the consumer response will be in the first few months before any decisions are made on how to spend the funding. Mr. Mitchell agreed, and added this item is just for discussion as to what interests the council would like to explore to be used in a future solicitation. Dr. Averyt suggested contacting the National Academy of Sciences (NAS) who has reported on STEM and underrepresented groups. She said with some legwork in advance of these grants perhaps NAS could assist the council in identifying some of those issues currently in Nevada.

Ms. Kraus asked whether the STEMhub website traffic is growing. Mr. Mitchell responded that year to year it has grown and continues to grow in traffic. He added there will be some changes on the STEMhub website in the near future. He said in the past, most advertising was done on FaceBook and in moving forward for various reasons, advertising on Google will be started. Ms. Kraus said some of the license plate funding could be used for additional advertising to help increase traffic on the STEMhub website and suggested printing STEMhub stickers with STEM license plate information or website information to hand out at events to increase resources in the community. Mr. Mitchell agreed with the idea. He suggested OSIT do some internal research on looking at the NAS report and bring the research back to the council. He added the council will

design the RFA for the grants and once applications come in they will be evaluated, followed by funding distribution from the proceeds of the license plates.

Mr. Mitchell discussed the K-5 STEM grant, which was appropriated in SB 402 for \$250,000. He said last week OSIT released an RFA for those K-5 STEM grants, which will fund the purchase of high-quality STEM programs from the council's recommended STEM programs list, which can be found at: <http://osit.nv.gov/STEM/STEMworks/> and can be applied for at the school level or by individual teachers for innovative STEM ideas for their classroom. He pointed out, as an example, that through research it has been determined that many girls make the decision of whether they are good at science and/or math in the 3<sup>rd</sup> through 5<sup>th</sup> grade years and this program is meant to capture some of those kids and continue their interest through these high-quality STEM programs. He added by building these programs in elementary school it will build a pipeline to high school CTE programs and eventually to college. He said work still needs to be done at each stage of the process, and this grant is an attempt to address a lack of resources within the state at the elementary level. He said applications for this grant are due back on October 15, 2019.

Mr. Mitchell discussed the Regional STEM Hub Program, also appropriated in SB 402 for \$300,000, with each of three hubs to receive \$100,000. He said this program is seen as a best practice in several other states having regional STEM hubs. He said he secured funding from the legislature to build out three new STEM hubs; one each in Northwestern Nevada, Southern Nevada and Rural Nevada. He said the purpose of these hubs is to establish local-level stakeholders and with funding, develop a local STEM group to; 1) identify local needs that could possibly be addressed by a statewide solution, then recommend those solutions to the STEM Advisory Council; and 2) identify best practices at the local level that could be scaled statewide. He added that by transplanting good ideas in more communities, it will greatly assist the council in future work. He said OSIT will distribute a solicitation for organizations, either non-profit or institutions of higher education, to host and staff each of the three hubs. He said some of the funding will be for the local STEM hub to provide small-dollar grants that increase participation in STEM activities. He added that OSIT anticipates having a solicitation out by the end of September 2019. He anticipates having a 2-year contract with each hub, with each hub receiving \$100,000 each year of the biennium.

Mr. Mitchell also discussed the last item in SB 402, STEM Recognition Events. He pointed out by statute the council is required to have two recognition events for students who do exemplary things in STEM and one event designating schools as official Governor Designated STEM Schools. He commented that past STEM school designation events have been very successful, but there have been some logistics struggles with this event required to take place in Carson City, as well as the student recognition events required to take place in an institution of higher education. To assist in this, he said statutory cleanup was requested of the legislature where limiting language in the statute regarding the locations of these events was removed. Now the Governor's Designated STEM School events can be held at any location as opposed to only in Carson City and student recognition events can take place anywhere as opposed to only at institutions of higher education. He suggested the council start the planning process for these events. He said in past council meetings there was interest in having one or more of the council's

subcommittees meet and put together ideas of how to partner with existing student recognition events without duplicating them as well as avoiding an event with no student impact, then reporting back to the council.

Co-Chair Newburn discussed SB 313, a computer science bill which followed SB 200 from the 2017 legislature that requires all high schools to offer computer science and allow academic standards to be produced for computer science by the Computer Science (CS) subcommittee of the STEM Advisory Council. He said the CS subcommittee was given the responsibility to advise the state board and legislature in K-12 computer science issues. He said SB 313 was designed to increase the number of K-12 computer science teachers and increase the amount of computer science knowledge that computer science teachers have in general. He said key items in this bill include a \$1.6 million appropriation, which will continue to fund school districts to help expand their in-service computer science teacher training, and it creates a special incentive fund. He pointed out one thing the CS subcommittee did in working with the Department of Education, was setup teacher license endorsements for computer science. He said this fund can also be used to reimburse the cost of tuition for teachers who are getting the new computer science endorsements, as well as be used to develop grants to go to higher education institutes to help develop computer science curriculum and courses. He added the bill also requires all pre-service teachers receiving teaching degrees to receive an appropriate level of computer science education and these grants are designed to help colleges develop that curriculum. He said the bill also provides funding for the Regional Professional Development Program (RPDP) to provide professional development training in computer science. He pointed out the bill is designed to expand the number of teachers through in-service training, to acquire teacher endorsements, and to help institutes of higher education develop pre-service training. Co-chair Newburn pointed out that while in the legislative process, SB 313 was merged into another, almost identical, computer science bill sponsored by Senator Moises Denis, which resulted in additional funding for the Department of Education to oversee everything and a requirement to develop an internet repository of computer science curriculum. He pointed out an interesting fact from the legislative process with SB 313 was that it passed all the way through both houses without a single “no” vote, making it unanimous at every single stage of the process. He compared this to 2013 legislation when he assisted Senator Joyce Woodhouse with the bill to establish the STEM Advisory Council and the various battles they had to go through, when STEM was so new and unheard of.

Ms. Stegman asked what the funding to RPDP would provide and whether that will be enough to hire a dedicated computer science person. Co-chair Newburn responded this training process was started in 2016 with RPDP using grant money from the College Board and Code.org for training in all computer science areas, and the state is now additionally funding approximately \$120,000 to continue this work. He added that in two days a private organization will be making an announcement they will be kicking in another \$1 million to help this process. Dr. Averyt asked who is responsible for the compilation of all computer science curriculum. Co-chair Newburn responded it is the Department of Education for K-12. He stated this was Senator Joyce Woodhouse’s last legislative session and for the last four sessions has served as the STEM Advisory Council’s “STEM Champion.” He said in going forward the council may want to start

looking into who the next legislative STEM champion will be. Mr. Mitchell suggested the council could continue to work with Senator Woodhouse in identifying that legislator.

**6. Update and Feedback on the STEM Education and Workforce Programs of OSIT**

(For information only)

Brian Mitchell

Mr. Mitchell gave an update on OSIT's STEM Education and Workforce programs. He said he recently had a meeting with Jhone Ebert, Superintendent of Public Instruction for Nevada Department of Education and being a former math teacher, she totally understands STEM and is very supportive. He said she had asked him to bring up the topic of training more STEM teachers and getting them into classrooms. He said this may be more of a long-term topic, but suggested the council begin discussion on some recommendations for the next legislative session to consider in order to grow new STEM teachers in Nevada. He commented he had forwarded Superintendent Ebert an article regarding an incentive program in Indiana, which is a scholarship fund for individuals who are majoring in education and focusing on STEM.

Mr. Mitchell commented on a new program this fall that will consist of open houses for Nevada Designated Model STEM schools. This program is targeted at teachers and administrators who are inspired by STEM schools, giving them a chance to see what a real STEM school looks like, ask questions, and get ideas on how to implement in their schools, as well as inspire them to seek the STEM school designation. He added the timeframe being considered for the open houses will be in late October 2019. OSIT will be reaching out to STEM schools, scheduling their open houses over a period of two days at various times.

Mr. Mitchell said OSIT has decided internally to update and advance the timeline for the STEM school designation process, which in the past has been a springtime endeavor with the official ceremony in May. He pointed out how the process often conflicts with spring-break and testing and is always challenging in odd-numbered years due to legislative sessions. He said OSIT anticipates moving the process up a couple of months, with the application period in December and site-visits taking place much earlier, possibly in January. He asked that members of the council who have participated in past school site-visits be aware of these timeline changes and would greatly appreciate their future assistance.

Mr. Mitchell commented on the STEM Advisory Council's list of recommended STEM programs, aka "STEMworks list." He said funding was not received from the legislature to continue a relationship with WestEd, however, OSIT will continue to solicit applications for programs and continue the process internally. He added that OSIT will be contacting members of the council to assist in reviewing those applications and suggested more of a rolling-application process rather than just one single application period thereby spreading out the workload.

Mr. Mitchell pointed out in the past, the higher-education Workforce Development Grant program funded new post-secondary STEM workforce programs that either lead to associate degrees or credentials, both at the high school level and the community college

(post-secondary) level. He said OSIT is now in the process of developing a new “high-bred” grant program that will incentivize consortia applications of high schools, post-secondary institutions or workforce training providers that are non-profits, and employers, all into a single program. He said the purpose of these grants are targeted towards high aptitude students who lose interest for different reasons not to proceed with a post-secondary education after graduation from high school and help put them on a pathway to post-secondary education. He said it starts with high school students taking dual-enrollment in a work-based learning experience during summer through fall after high school, then graduating with a certificate or credential of value without a gap in enrollment. He added it also includes a guaranteed job interview by employer partners that participate in the program.

Mr. Potts asked what the interest has been for this program. Mr. Mitchell said he has had conversations with school districts, community colleges, and employers and they have all been unanimously interested that there is a need. He said he would like to fund a couple of pilot programs that will prove the concept that students are otherwise statistically unlikely to have gotten to these entry level jobs in high-demand STEM fields. Ms. Stegman commented on a similar program at UNR called Community of Bilingual English-Spanish Speakers (CBESS) and pointed out how it takes the gap out for 11<sup>th</sup> and 12<sup>th</sup> grade students between high school and post-secondary education.

**7. Update on the Creation of an Asset Map of STEM Programs in Nevada (For information only)**

Brian Mitchell

Mr. Mitchell said he has been working with National Alliance for Partnerships in Equity (NAPE), a national organization that focuses on equity in STEM education. He said a survey was sent out to initially establish STEM programs that are available. He added he has also been working separately with the Informal STEM Learning Environments (ISLE) subcommittee who also sent out a survey to informal educators asking what they are doing and how many kids they serve and their demographics, etc. He pointed out through NAPE, a relationship has been built with a programmer using Tableau software, who will enter our survey results then deliver the beginnings of an asset map. He pointed out how this map will assist in visualizing whether further outreach is required and to identify any missing gaps/holes in STEM education in all student areas. He said this could ultimately help in grant decisions the council or OSIT makes. He added he anticipates the asset map will be finished by the next STEM Advisory Council meeting. He said in past council meetings it was determined that not only high-quality programs would be included on the map, but rather include all programs. He said this way all STEM programs will be mapped and detailed, showing which programs may require additional assistance to become high-quality STEM programs.

Ms. Stegman commented that when the asset map is complete the Nevada State Science Teachers Association might be able to assist with any gaps of STEM programs within the asset map. Mr. Potts commented it may be interesting to see how this map, once complete, correlates with other maps, i.e. state broadband and connectivity.

Mr. Mitchell commented he had been getting questions regarding STEAM programs, separate from STEM, and plans to bring this to the attention of the Advisory Council's STEAM subcommittee to see if a filter can be added to the survey for STEAM specific programs or schools, as an added layer on the asset map.

**8. Discussion on STEM Advisory Council Membership Vacancies and the Timeframe for an In-Person Meeting of the Council (For information only)**

Brian Mitchell

Mr. Mitchell commented there are currently six vacancies in the council's membership. He said one vacancy is a Governor appointee and five are legislative appointees. He added the council is not alone, there are many other boards and committees awaiting vacancies to be filled. He said he has reached out to the Governor's office with a few potential names of individuals and is hopeful that the Governor appointee will be filled soon. He added he will request Senator Joyce Woodhouse to assist the council by contacting legislature leadership with the legislative appointed vacancies. He added that filling the vacancies is important in order to secure a quorum for council voting authority. He said the council is also statutorily required to hold two in-person meetings each year and this makes it difficult to schedule when all members are needed to make a quorum. He added that OSIT now has travel funds for the council included in its budget to make those travel arrangements to either Northern Nevada or Southern Nevada.

Mr. Mitchell proposed that if some appointments are made in the next few months, the council should plan on an in-person meeting in January 2020, perhaps during the school calendar Christmas-break. He added it would be a good opportunity for an orientation for new members as well as a strategic planning meeting for next steps and discussion of areas for legislation to focus on for the next session. He pointed out that some of the travel funding could also be used for members who are teachers to cover their substitute expenses to their school. He asked that anyone with new member suggestions to fill vacant seats on the council, submit those names to him. He added the requirement for the position is they either be classroom teachers, higher education professors in STEM, school or university administrators in STEM, or a STEM business person, and pointed out because this is a statutory body all seats are appointed.

Co-Chair Newburn commented that the State Public Charter Authority and the Council to Establish Standards are both going through this same type of issue within their groups. He added that SB 543 established the new K-12 funding formula and created the Commission on School Funding, and requires it to "hold its first meeting on or before October 1, 2019, ..." He said with the completion of filling those memberships vacancies, perhaps attention to the STEM Advisory Council and filling our vacancies will become a new priority very soon.

Kalie Works, Washoe County Recorder, expressed her interest in becoming a member of the STEM Advisory Council and stated she has submitted an application to the Governor's office. Mr. Mitchell pointed out that if a person does not fall under the requirements of the statutes, the council has several subcommittees that do not have the same requirements but can be appointed by members of the council. He said the



subcommittees consist of: Computer Science, Community Partnerships, Informal STEM Learning Environments, and STEAM subcommittees.

**9. Consider Agenda Items for the Next Meeting** (For possible action)

Co-Chair Mark Newburn

Co-Chair Newburn said it is probably time for the council to get another report from each of the subcommittees. Mr. Mitchell suggested an update on tentative plans for the recognition events.

**10. Public Comment** (No action may be taken upon a matter raised under public comment period unless the matter itself has been specifically included on an agenda as an action item.)

There was no public comment.

**11. Adjournment**

Co-Chair Mark Newburn

Co-Chair Newburn adjourned the meeting at 5:00 p.m.

DRAFT