

## R904, Deep Technology Talent Initiative<sup>1</sup>

**R904-1 Purpose:** To respond to the need for deep technology talent across Utah by establishing the deep technology talent initiative. The initiative facilitates collaborations for new or expanded multidisciplinary programs or stackable credential programs in both undergraduate and graduate studies that prepare work in jobs requiring deep technology skills. This policy also establishes procedures for Utah System of Higher Education (“USHE”) institutions to apply for and be awarded funding to create or expand programming in deep technology.

### R904-2 References

**2.1** Utah Code § 53B-24-110, Talent Advisory Councils

### R904-3 Definitions

**3.1 “Advisory Council”** means the Deep Technology Talent Advisory Council created in subsection 4.

**3.2 “Deep Technology”** means technology that leads to new products and innovations based on scientific discovery or meaningful engineering innovation. Deep technology may include but is not limited to technology that leads to new products and innovations related to one or more of the following:

**3.2.1** Advanced materials;

**3.2.2** Artificial intelligence;

**3.2.3** Augmented and virtual reality;

**3.2.4** Biotechnology;

**3.2.5** Photonics;

**3.2.6** Quantum computing;

**3.2.7** Robotics;

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<sup>1</sup> Adopted May 15, 2020; amended November 18, 2022; and March 27, 2025.

**3.2.8** Secure computing; and/or

**3.2.9** Other emerging technologies as determined by the Commissioner of Higher Education or Advisory Council.

**3.3** “**Institution**” means the University of Utah, Utah State University, Southern Utah University, Weber State University, Snow College, Utah Tech University, Utah Valley University, or Salt Lake Community College.

#### **R904-4 Deep Technology Talent Advisory Council**

**4.1** The Talent Board creates the Deep Technology Talent Advisory Council (“Advisory Council”) which reviews, prioritizes, and makes recommendations to the Utah Board of Higher Education (“Board”) regarding proposals for funding for the Deep Technology Initiative. All advisory council members shall be appointed for four-year terms except where otherwise noted in this policy. The advisory council shall consist of the following members:

**4.1.1** Four members who have extensive experience in deep technology in the private sector whom the chair of the talent board appoints and the Board approves (two 2-year terms, two 4-year terms);

**4.1.2** A representative of the Board appointed by the chair of the Board;

**4.1.3** A representative of the Governor's Office of Economic Development appointed by the executive director of the Governor's Office of Economic Development;

**4.1.4** One member of the Utah Senate appointed by the president of the Senate;

**4.1.5** One member of the Utah House of Representatives appointed by the speaker of the House of Representatives;

**4.1.6** A representative from Talent Ready Utah; and

**4.1.7** Any other specialized industry experts who may be invited by a majority of the advisory council to participate as needed as nonvoting members.

**4.2** Successor advisory council members upon appointment or reappointment shall each serve a term of four years. When a vacancy occurs in the membership for any reason, the replacement shall be appointed by the initial appointing authority for the unexpired term. An advisory council member may not serve more than two consecutive terms.

**4.3** A vote of a majority of the advisory council members is necessary to take action on behalf of the advisory council. The duties of the advisory council include reviewing, prioritizing, and making recommendations to the Board regarding proposals for funding under the deep technology talent initiative.

**4.4** Talent Ready Utah shall provide staff support for the advisory council.

#### **R904-5 Deep Technology Talent Initiative**

**5.1** Subject to appropriations from the Utah Legislature, there is established a deep technology talent initiative that provides funding for expanded programs in deep technology. The initiative should facilitate collaborations that create expanded, multidisciplinary programs or stackable credential programs in both undergraduate and graduate studies that prepare students to be workforce participants in jobs requiring deep technology skills.

**5.2** A USHE institution seeking to partner with a participating employer to propose a new program shall submit a proposal to the Office of the Commissioner of Higher Education, in a form approved by the Commissioner of Higher Education (“Commissioner”), which contains the following elements:

**5.2.1** A description of the proposed program, including implementation timelines, in deep technology that demonstrates the program will:

**5.2.1.1** Be responsive to Utah’s deep technology talent needs by involving industry in the project’s design;

**5.2.1.2** Be a partnership that includes at least one participating employer and at least one institution of higher education; and

**5.2.1.3** Address a previously unmet regional workforce need related to deep technology.

**5.2.2** An estimate of:

**5.2.2.1** Projected student enrollment and completion rates for the program;

**5.2.2.2** The academic credit or credentials that will be provided by the program; and

**5.2.2.3** Occupations for which graduates will be qualified.

**5.2.3** Evidence that each participating employer is committed to participating and contributing to the program by providing any combination of instruction, curriculum review, feedback regarding effectiveness of program graduates as employees, extensive workplace

experience, or mentoring.

**5.2.4** A description of any resources each participating employer will provide in the program.

**5.2.5** The amount of funding requested for the program, including justification for the funding and the cost per student served as estimated under subsection 5.2.2.

**5.3** The commissioner shall provide all proposals to the advisory council and the advisory council shall review and prioritize each proposal received and recommend to the Board whether the proposal should be funded, including the recommended amount of funding, using the following criteria:

**5.3.1** The quality and completeness of the elements of the proposal described in subsection 5.2.

**5.3.2** To what extent the proposed program will:

**5.3.2.1** Expand the capacity to meet state or regional workforce needs related to deep technology;

**5.3.2.2** Integrate deep technology competency with disciplinary expertise;

**5.3.2.3** Identify a faculty member or other individual who has expertise and a demonstrated willingness to lead the proposed program;

**5.3.2.4** Incorporate internships or significant project experiences, including team-based experiences;

**5.3.2.5** Identify how industry professionals would participate in curriculum development and teaching;

**5.3.2.6** Create partnerships with other higher education institutions and industry; and

**5.3.2.7** Be cost effective.

**5.3.3** Other relevant criteria as determined by the advisory council, the commissioner, or the Board.

**5.4** Subject to subsection 5.5 and the other provisions of this policy, on or before September 1 of each fiscal year, the Board shall review the advisory council's recommendations and may provide funding for deep technology programs using the criteria described in subsection 5.3.

**5.4.1** Before the Board may provide funding for one or more deep technology programs for fiscal year 2021, on or before October 1, 2020, the Board shall provide written information regarding the proposed funding to, and shall consider the recommendations of, the Higher Education Appropriations Subcommittee.

#### **R904-6 Reporting Requirements**

**6.1** Each USHE institution that receives funding under this section shall, in a form approved by the Board, annually provide written information to the Board regarding the activities, successes, and challenges related to administering the deep technology program, including:

**6.1.1** Specific entities that received funding under this section;

**6.1.2** The amount of funding provided to each entity;

**6.1.3** The number of participating students in each program;

**6.1.4** The number of graduates of the program;

**6.1.5** The number of graduates of the program employed in jobs requiring deep technology skills; and

**6.1.6** Progress and achievements relevant to the implementation timelines under subsection 5.2.1.

#### **R904-7 Compensation**

**7.1** An advisory council member may not receive compensation or benefits for the member's service, but an advisory council member who is not a legislator may receive per diem and travel expenses in accordance with:

**7.1.1** Utah Code sections 63A-3-106 and 63A-3-107; and

**7.1.2** Rules made by the Division of Finance pursuant to Utah Code sections 63A-3-106 and 63A-3-107.