HSC 292
&
Health Science Senior Experience Capstone Project
CAPSTONE COMPONENTS

The HOSA Health Science Senior Experience Capstone Project (HSC 292) is a high school capstone experience that requires students to demonstrate not only what they know, but what they can do. The project should follow the program description of the “South Dakota Senior Experience Framework, 2010”. Credit earned will be dictated by local school policy and dual credit MAY be available through a college or university. The curriculum would include the following items:

Component 1: The Research Paper
- A research paper on a health care topic such as, but not limited to, emergency medicine, universal health care, robotics in surgery, health care workforce shortage, triage procedures, e-Medicine/e-Pharmacy, the U.S. obesity pandemic etc.
- The paper should be adequate in length to meet the student’s goals and formatted using the appropriate formatting style (APA, MLA, etc.).

Component 2: The Individual Project
- HOSA rubrics will be used to assess the completion of an individual health related project. Students will select one of the following:
  - Individual project options: CLINICAL SPECIALTY or HEALTHY LIFESTYLE

Component 3: The Collaboration Project
- HOSA rubrics will be used to assess the completion of a collaboration health related project. Students will be able to use others in the school to help if they wish and/or collaborate with another student in their school taking this course. Students will select one of the following:
  - Collaboration project options: COMMUNITY AWARENESS, PUBLIC SERVICE ANNOUNCEMENT (PSA), HEALTH EDUCATION or PUBLIC HEALTH

Component 4: The Procedures
- HOSA rubrics will be used to perform and assess two (2) professional procedures at a proficient level. One (1) procedure is required as assigned: hand-washing/taking vital signs. The student will select one (1) other procedure, based on student interest, from the following professions: biomedical lab science, clinical nursing, dental science, home health aide, medical assisting, nursing assisting, physical therapy, sports medicine, EMT, CPR/first aid, and veterinary science. Procedures would be captured via video and sent to an AHEC for assessment OR assessed by a health care professional in the school/community.

Component 5: The Portfolio
- The student will complete a portfolio (career recognition portfolio) that will include specific writings throughout the experience. The writings will include informative journals, brochures, interviews, and a final reflection. The portfolio will be assessed by the panel using the rubric from the SD Department of Education Journal requirements.

Component 6: The Presentation
- Students will present what they have learned to a panel of judges. The 10-15 minute presentation will include facets of the research paper, the project experiences, and personal growth. A question and answer period will follow the presentation.

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SENIOR EXPERIENCE CAPSTONE
Criteria for Exemplary Programs

Program Description:
The purpose of the Senior Experience Capstone is to provide students with the opportunity to demonstrate the
knowledge, skills, and maturity they have gained during the course of their high school education. The Senior Experience
Capstone is a four-part process consisting of a research paper, a portfolio, a project/product that is an extension of the
learning and an oral presentation. The capstone must be a “learning stretch,” meaning that it must go beyond what the
student already knows or has experienced.

1) All seniors complete the Senior Experience as a requirement for graduation.
   • The Senior Experience should reflect the student’s chosen career cluster/pathway and be reflective of
     their personal learning plan.
   • Schools must have a Senior Experience “team” in place consisting of the following members:
     ▪ A teacher advisor
     ▪ A health care professional mentor
     ▪ An administrator
     ▪ A parent (legal guardian)
   • Students are evaluated on each of the four capstone components.

2) All students complete a research paper.
   • The research paper is based on the Senior Experience project topic and relates to the student’s chosen
     career cluster/pathway.
   • The research paper should be 6-8 pages in length and formatted according to a consistent style which
     includes a minimum of 3 sources.

3) All students complete a portfolio.
   • The portfolio should reflect new information learned and demonstrates how that knowledge was
     applied in new and creative ways.
   • The portfolio should include all forms, journal entries, references and activities associated with the
     Senior Experience.
   • The portfolio will be assessed by a panel using a HOSA rubric.

4) All students complete an individual project, collaboration project, and two selected skills related to health
    care.
   • The student has 2 options for the individual project and 4 options for the collaboration project.
   • The student has over 20 procedure options from 10 different careers.

5) All students will present what they learned to a panel of judges.
   • The presentation should last from 10-15 minutes and include time for questions from the judging panel.
   • The presentation should cover what was learned from doing the research, from writing the paper, and
     from completing the Senior Experience.
   • The presentation should also include what worked and what did not work, how the problem was solved
     and the nature of personal growth.

6) The school district has the structure in place to offer and operate the Senior Experience Capstone.
   • A steering committee comprised of school staff and students is in place.
   • The school has designated a coordinator for the program.
   • The senior experience coordinator is allotted time during the school day to manage the program.
   • A program guide provides information on the purpose, operating structure, all forms and documents,
     and program and student evaluation.

South Dakota Department of Education, 2012

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ELEMENTS OF A HIGH-QUALITY
SENIOR EXPERIENCE CAPSTONE PROGRAM

1) **Clear and Aligned Purpose** - Student learning outcomes are aligned with school, district, and state mission and goals.

2) **Explicit, Rigorous Criteria** - Performance is assessed by application of established criteria.

3) **Student-Directed Learning and Youth Engagement** - The student takes leadership for selecting, planning, and implementing his/her own learning goals.

4) **Clear Scaffolding of Skills** - Students need instruction and practice for the skills required in the *experience*. Some schools include a culminating project in elementary and middle school levels as well as high school.

5) **Learning Stretch** - The *experience* poses a challenge that requires significant new learning.

6) **Authentic Experience** - Students apply core academic knowledge and skills beyond the traditional classroom setting to address a real problem.

7) **Community Involvement** - Members of the broader community play an important role in Experience as mentors, panelists, advisors and/or resources.

8) **Authentic Audience** - Expert individuals and community organizations are critical members of the audience to hear and review the Experience.

9) **Coordination and Comprehensive Communication** - Students, parents, community members, teachers and administrators understand the purpose and processes of the *experience*.

10) **Adequate Staffing and Supervision** - There is sufficient staff to coordinate the program and provide support to teachers, parents, and community partners.

11) **Mechanism for Training Community Partners** - Community partners are provided training to perform their role as co-educators and authentic partners.

12) **Mechanisms for Parent Involvement** - Expectations are developed for parent involvement in the design, implementation, and celebration of the *experience*.

13) **Ongoing Professional Development and Program Improvement** - School leaders and community partners organize formal training sessions, reflection activities and opportunities to continuously improve the program.

14) **A Plan for Risk Management and Liability** - Schools and communities ensure the *experience* takes place in a safe environment and risk is managed.

15) **Celebration and Recognition** - All collaborators are provided opportunities to be recognized and celebrate the success of the experience.

*Education Commission of the States, 2004*
IMPLEMENTATION PROCESS CHECKLIST

1) Organize (Before the school year starts)
   a. ___ Acquire support from administration and faculty.
   b. ___ An advisor is assigned.
   c. ___ A health care professional is sought out.
   d. ___ Letter of intent is written to your “team” and HOSA State Advisor.
   e. ___ Your “team” signs off on “Agreement/Commitment Form”.
   f. ___ Read through USD’s Online Orientation Guide.
   g. ___ Acquire access to myUSD portal.
   h. ___ Acquire a login/password for D2L access via USD.
   i. ___ With your team, review the contents of the HOSA packet (online)
   j. ___ Determine if high school credit/dual credit will be offered.
   k. ___ Pay the course fee.

2) Plan
   a. ___ Review the Senior Experience components.
   b. ___ Discuss and select your projects/procedures with a local health care professional.
   c. ___ Narrow down a possible research paper topic.
   d. ___ Establish a budget for the projects/procedures.
   e. ___ View the online presentation by the SD HOSA State Advisor.

3) Design
   a. ___ Identify which components of the Senior Experience you will use in your plan.
   b. ___ List the outcomes/goals you wish to accomplish when your Senior Experience is completed.
   c. ___ Create a program of work (deadlines, appointments).
   d. ___ Have your program of work reviewed by the assigned advisor.

4) Implement
   a. ___ Initiate your Senior Experience through referral to your Program of Work (timelines).
   b. ___ Stick to the timetable as you develop your research paper.
   c. ___ Revise progress regularly, adjusting expectations and plans as needed.
   d. ___ Prepare your presentation as that draws nearer the timeline.

5) Evaluate
   a. ___ Goals have been identified for the Senior Experience.
   b. ___ Student outcomes have been identified.
   c. ___ Analyze program and student results.
   d. ___ Recommend modifications to the Senior Experience based upon results.
SAMPLE PROGRAM OF WORK/TIMELINE

August

- (Mod 1:Wk1) With your advisor and help from administration, select your Senior Experience Committee consisting of four persons (Recommended team: faculty member and/or English teacher, administrator, parent or legal guardian, and health care professional). Take time to review HOSA’s projects/events.

- (Mod 2:Wk2) With your assembled committee, sign all the required paperwork/permissions and pay the course fee. Read and have threaded discussions regarding “Top 10 Qualities of an Effective Health Care Employee”. Select a health care related research paper topic. Visit with your English teacher in regard to understanding the basis of your research paper. Set a start/end date for the paper.

September

- (Mod3:Wk3) Specify which HOSA projects/procedures you would like to participate in and develop your “Program/Scope of Work” and identify the goals of your Senior Experience. Plan your access and acquisitions of the proper equipment (borrow, rent, buy, etc). Fill out the “Project and Procedures Chosen” form. Meet with your health care professional “teammate” to discuss the events/procedures you have chosen.

- (Mod4:Wk4-5) Complete Individual Project: Clinical Specialty or Healthy Lifestyle. The Clinical Specialty project involves a shadowing experience that should be coordinated weeks in advance with a local health professional. If Healthy Lifestyle is chosen, you will have 3 months to accomplish your lifestyle goal. Healthy Lifestyle goals may be nutrition related, exercise related, weight related, or other fitness goal.

- (Mod5:Wk6) Construct a thesis for your research paper. Modify as instructed by your English teacher. Begin documenting sources for your research paper and writing your paper.

October

- (Mod6:Wk7-8) Practice and complete Health Procedure #1 (Hand-washing and taking vitals as a patient-based procedure) selected from HOSA’s NURSING ASSISTIG EVENT) using the rubric and health care resources. By the end of this module capture the procedure via video (with sound) and have the health care professional teammate assess the procedure OR send it to your local AHEC Center for judging/assessment.
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- (Mod7:Wk9) Practice and complete Health Procedure #2 (patient based procedure selected from any of HOSA’s HEALTH PROFESSIONS EVENTS) using the rubric and health care resources. By the end of this week, capture the procedure via video (with sound) and have the health care professional teammate assess the procedure OR send it to your local AHEC Center for judging/assessment.
- (Mod8:Wk10) Continue working on research paper.

November

- (Mod9:Wk11-14) Complete Collaboration Project: Select a Project from one of the following: Community Awareness, Health Education, Public Service Announcement (PSA), or Public Health.

December

- (Mod10:Wk15) Continue work on research paper and review. With your team, find a date/time you will be able to present your capstone to a group of adults (school board, administration, etc.)
- (Mod11:Wk16) Research paper due. Complete all aspects of Senior Experience portfolio.
- (Mod12:Wk17) Prepare and present your Senior Experience to a panel of judges.

### PROJECT AND PROCEDURE DURATION

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<thead>
<tr>
<th>Project</th>
<th>Time frame</th>
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<tbody>
<tr>
<td>Procedure #1</td>
<td>6-8 days</td>
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<tr>
<td>Procedure #2</td>
<td>6-7 days</td>
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<tr>
<td>Individual Project</td>
<td>8-14 days</td>
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<tr>
<td>Collaboration Project</td>
<td>17-20 days</td>
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### MODULE BREAKDOWN

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<th>Selecting Your Senior Experience “Team”</th>
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<td>Module 2</td>
<td>Complete Paperwork, Threaded Discussions, and Select Research Paper Topic</td>
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<td>Module 8</td>
<td>Work on Research Paper</td>
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<td>Module 9</td>
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<td>Module 10</td>
<td>Work on Research Paper</td>
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<tr>
<td>Module 11</td>
<td>Research Paper Due and Finish Portfolio</td>
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<td>Module 12</td>
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