**Team Purpose**

The NAU Gore Capstone team was formed with the purpose to design and build a device that will be more efficient than the current one. Each member of the team has an interest in working with a medical device company to apply our engineering knowledge and gain experience in implementing our problem solving skills. This team must develop a stent crimping machine that is not hand actuated and utilizes an iris design with a radial force output.

The stakeholders for this project include the clients from Gore and Dr. David Trevas. The stakeholders expect a team that is professional and capable at excelling in the proposed project. The NAU Gore Capstone team is responsible for completing deliverables on time and creating a successful product while functioning as a team.

**Team Goals**

The team’s goal is to solve the problem presented. W. L. Gore submitted a proposal for the construction of an automated stent crimper to NAU for a capstone project. The stent crimper must stay within the specifications given to the team. The team is expected to be professional and courteous with one another, realizing that the end goal cannot be reached without the participation of everyone. The team is meeting with the clients at a later date to obtain more details and the charter will be updated to reflect those changes. The guaranteed specification is that the device must meet the ANSI, OSHA, and other applicable safety standards. The end goal of the entire project is to complete what Gore asks of the team.

The team is aiming for an A, as well as collectively completing the task set before us. The team will work together with the client to include as many customer needs as are feasible.

**Team Member Personalities/Roles/Responsibilities**

Team members each have roles and responsibilities that are essential to a functioning team. The roles for this team are the team manager, client contact, budget liaison, document manager and website developer. The team manager will be responsible for managing tasks, developing an overall schedule, run the meetings, review individual contributions and provide a safe and welcoming team environment. Cameron will be the team manager. Cameron is a leader, carefully listens to teammates inputs, and works well in team environments. These traits will be beneficial for the project manager role. The client contact will be Jenny. The responsibilities of this role include managing external communications with the client. All communication with the client will be through Jenny. Jenny has proficient communication skills that will be beneficial in contacting and communicating with the clients. Budget liaison will oversee all purchases, be the main contact with the front office for budget management, monitors and records all purchases for budget tracking and updates the bill of material. Ashely will be the budget manager. Ashely is task oriented and very organized, this makes her great for for the budget manager. The document manager is responsible for maintaining repository for all documents, including but not limited to CAD models, computer codes, standards, references and meeting minutes and agendas. This role will be taken by Nick. Nick is a great follower, but can be a leader when needed. He has strong analytical skills and is proficient at figuring out small details. His personality will be beneficial for both roles that he is assigned. Nick will also be the website developer. The website developer posts the groups work on the team’s official website. He will also decide the format of the website and how it is presented.

As a team, each member has responsibilities to ensure a functioning team. The team members are responsible for knowing the ground rules, contribute to different aspects of the design project equally, being active and engaged in group discussions. Other responsibilities that the team members will have are completing tasks on time. If a team member needs help with a task that individual person is responsible for seeking the help needed, and the rest of the team are responsible for providing help to their teammate.

**Ground Rules**

This team will meet Tuesday and Thursday from 9:35am-10:50am for staff meetings and team meetings. Equal input is required from each member during meetings and an agenda and minutes will be recorded. Regular meetings with the client are yet to be determined. The norms for the regular meetings are respect for one another and understanding individual responsibilities. Respect includes not talking over one another and actively listening when a team member is talking. Each team member is responsible for their own actions, realizing that decisions the member makes reflects the team as a whole.

Discussions will be conducted during meetings and in a professional manner. Decisions will be made based on adhering to engineering standards and manufacturability. Guidance from the clients will also be of use when making decisions. Each member should communicate their views and complaints in a timely manner, so as not to build a tension that will be irreversible. The rest of the team should listen to the complaints and work through to a solution in a professional manner.

Each member of the team will hold each other accountable through basic communication. Basic communication includes email, texting, and phone calls. The team will be respectful towards each other and understanding. Each team member lives their individual life and sometimes unavoidable mishaps happen. If a team member feels they can not complete a task it is their responsibility to ask for help. It is the responsibility of every team member to complete tasks. If an emergency happens to come up and a team member can not make it to a meeting, it is the responsibility of that member to inform the team of their absence. Each team member will be responsible for equal contribution to document construction. Team members will be responsible for looking over assignments and what is expected.

**Potential Barriers and Coping Strategies**

Through the course of the semester, potential barriers to effective teamwork might arise. Prospective conflicts that could arise include work balance issues, miscommunications, time management issues, and disagreements in ideas. Work balance issues incorporate perceived imbalances between team member workload. Miscommunications incorporate misinterpretations in a person’s intended meaning. Time management issues may include inability to adhere to a schedule and complete tasks within a timely manner. Disagreements in ideas is marked by the inability of team members to arrive at a consensus in the discussion, creation, or schedule of ideas and tasks. Other potential barriers to effective teamwork may be addressed by previously experienced barriers.

Previous issues with team dynamics have included lack of motivation, lack of responsibility, substandard time management, and unreliable tendencies. A lack of motivation is described by the inhibitions of a person in planning, discussions, or design of the project. A lack of responsibility includes a team member who underperforms in an assigned tasks, fails to appear at team meetings, and does not demonstrate concerns with scheduling of tasks. Substandard time management skills include the inability to adhere to a defined schedule or complete tasks within a given time period. Unreliable tendencies describes a team member who is often unfaithful in their commitment to tasks or responsibilities despite their presence throughout each team meeting.

To handle potential barriers, several solutions will be implemented to prevent prospective conflicts and handle arising issues. The team will implement effective communication strategies and encourage time management among team members. For effective communication, each team member will be expected to respectfully listen to other’s statements, actively participate in all discussions, ask questions for clarification purposes, and inform fellow team members of potential concerns. To guarantee time management, a coherent schedule that defines current tasks and responsibilities will be implemented and team members are encouraged to inquire about the progress of fellow team members. If a team member does not demonstrate effective teamwork, they will be subject to a decreased grade or removal from the team if the problem persists.

