Milestone 1 (Team) – Cover Page

Team Number: | 6

Please list full names and MacID's of all *present* Team Members.

Full Name:	MacID:
Olivia Dmitrovich	dmitrovo
Marco Tan	tanm27
Safana Al-Emara	alemaras
David Segal-Pillemer	segalpid

Any student that is **not** present for Design Studio will not be given credit for completion of the worksheet and may be subject to a 10% deduction to their DP-2 grade.

MILESTONE 1 – PATIENT DIAGNOSIS

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1. Document all pertinent information related to your assigned patient in order to create a **PATIENT PROFILE**.

SYMPTOMS:	-Long history of hip pain -Can only walk 2 minutes using a cane
IMAGING INDICATORS:	-Lack of cartilage -Abnormally shaped femoral head -No gap between acetabulum and femoral head
PREVIOUS MEDICATIONS / DOCTOR VISITS:	Previous medication: -Tramadol (100mg per day. Ineffective) -Oxycodone (2.5mg per day)
MISCELLANEOUS NOTES:	Pain at a 7-9 range out of 10. BMI indicates patient overweight. Left leg 1cm shorter than right. Prior prostate cancer. Prostate removed. No chemo or radiation therapy used.

2. Record your final diagnosis in the space below.

FINAL DIAGNOSIS:	Osteoarthritis caused by undiagnosed Legg-Calvé-Perthes Disease (LCP Disease).

** You must verify that your diagnosis is correct before you leave

MILESTONE 1 – OBJECTIVES AND CONSTRAINTS

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As a team, identify a list of objectives, constraints, and functions for a proposed design solution. Your list should:

→ Focus on your assigned design challenge

→ Be comprehensive enough to fully define the given problem

OBJECTIVES	- Allow for range of motion equal to the other hip. - Able to bear weight with no pain. - Able to walk for an extended period without assistance. - Correct for the 1 cm difference between leg lengths.

CONSTRAINTS	- Must fit the anatomy of the patient. - Must be made of biocompatible materials. - Must be affordable - Must be Long-term - Must not exacerbate current condition.

MILESTONE 1 – NEED STATEMENT

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Need Statement

Write your Need Statement in the space below. Recall that your need statement should:

→ Have a clearly defined problem (*what* is the need?)

→ Indicate your end-user (*who* has the need?)

→ Have a clearly defined outcome (*what* do you hope to solve and *why* is it important?)

NEED STATEMENT:	Design a replacement for Jackie Chiles' left hip to correct for his osteoarthritis caused by deformities associated with undiagnosed Legg-Calvé-Perthes disease. This should improve his quality of life by mitigating pain associated with his condition and increasing his mobility.