

Audit ID & Type	733	Laser Safety
Audit Time & Facility type	Thu, 8/25/22 2:23 PM	Laser Safety
Room	Test	University Hall
Location notes		
Initial audit ended		
Status	Initial audit not completed	

Personal Training and Qualifications

Question # (Question ID):	1 (83)	Is the LASER operator qualified (documentation of receiving basic LASER information and LASER operation training for specific LASER)?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: Specific LASER Qualification Training - Provide documentation of training on the specific LASER. Contact Safety and Health at 419-383-5069 for available training courses. Reference UT Procedure #HM-08-002 (LASER Systems). LASER Safety Manual: Section 6.0, 12.4. ANSI Z136.1, Section 4.4. Documentation forms can be found at http://www.utoledo.edu/depts/safety/docs/Lab_Safety/UT_LASER_OPERATOR_RECORD.pdf .

Notes:

Question # (Question ID):	2 (84)	Has the UT staff present recieved LASER safety training (classroom or on-line)?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: UT Safety Training - Complete LASER safety training (classroom or on-line) through Safety and Health. Reference : UT Proceedure #HM-08-002 (LASER Systems). LASER Safety Manual: Sect 6.0.

Notes:

LASER Use Responsibilities

Question # (Question ID):	3 (85)	Have all LASER users had a baseline eye exam or filled out a declination form?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: LASER Eye Exam - Schedule an eye exam or obtain and fill out a declination form that can be obtained from the PI, LASER Safety Officer, or the Safety and Health Department. Reference: UT Procedure #HM-08-002 (LASER Systems). LASER Safety Manual: Section 6.0.

Notes:

Question # (Question ID):	4 (86)	Have all LASER activities been recorded in the LASER log book?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: Log Book - Provide a LASER log book. Reference: UT Procedure#HM-08-002 (LASER Systems) LASER Safety Manual: Section 5.0.

Notes:

Question # (Question ID):	5 (87)	Is each LASER, under the PI/Instructor's/Technology Support control, labeled with its classification?
Status/Due date	N/A	08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Labeling - Label each LASER or LASER system with the correct ANSI LASER Classification. Reference: LASER Safety Manual, Section. 10.0 nd 12.7. ANSI Z1236.1, Section 4.3.14, ANSI Z136.5, Section 4.6.14.

Notes:

Question # (Question ID): 6 (88)
Has the PI/Instructor/Clinical Area Director provided Safety and Health with an accurate LASER Inventory?
Status/Due date N/A
08/25/22

Priority/Recommendation: Intermediate

 LASER Safety Corrective Actions: Inventory - Provide Safety and Health with an up to date LASER inventory. Reference: LASER Safety Manual: Section 5.1. Documentation forms can be found at http://www.utoledo.edu/depts/safety/docs/Lab_Safety/UT_LASER_INVENTORY_FORM.pdf.

Notes:

Question # (Question ID): 7 (89)
Are all the LASER dyes handled and disposed as hazardous waste?
Status/Due date N/A
08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Dyes - Contact Safety and Health about receiving proper training on handling and disposal of hazardous waste. Reference: LASER Safety Manual: Section 12.8.

Notes:

Question # (Question ID): 8 (90)
Can the LASER beam come into contact with combustible materials, explosives, highly flammable liquids or gases or substances that decompose into highly toxic products without providing adequate controls?
Status/Due date N/A
08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Fire - Provide adequate controls or remove materials from all areas where there may be potential interaction with the LASER beam. Reference: LASER Safety Manual: Section 12.8.

Notes:

Administrative Control Measures
Question # (Question ID): 9 (91)
Do all entrances with a Class 3b or 4 LASER have a lighted warning sign that activates when the LASER is energized?
Status/Due date N/A
08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Lighted LASER Signs - Provide and install a lighted LASER warning sign. Reference: LASER Safety Manual: Section 12.7. ANSI Z136.1, Section 4.7.

Notes:

Question # (Question ID): 10 (92)
Was the LASER placed in the "off" position when not in use?
Status/Due date N/A
08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID):	11 (93)	Is each entrance posted with a warning sign based on the class of LASER (DANGER: The signal word "Danger" shall be used with all signs and labels associated with Class 3R, 3B and 4 LASERS. CAUTION: The signal word "Caution" shall be used with all signs and labels associated with Class 2 and 2M LASERS. NOTICE: The signal word "Notice" shall be used on signs posted outside temporary LASER controlled area, i.e. during periods of service)
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: LASER Class Warning Signs - Provide LASER class warning signs for each entrance. Reference: LASER Safety Manual: Section 12.7. ANSI Z136.1, Section 4.7.

Notes:

Question # (Question ID):	12 (94)	Has the PI/Instructor/Clinical Area Director provided Standard Operating Procedures for each LASER and LASER procedure?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: SOPS - Provide Standard Operating Procedures for each LASER and LASER Procedure. Send a copy to Safety and Health. Reference: UT Procedure#HM-08-002 (LASER Systems). LASER Safety Manual: Section 5.0, 12.4, ANSI Z136.1, Section 4.4. Documentation forms can be found at http://www.utoledo.edu/depts/safety/docs/Lab_Safety/UT_LASER_SOP_FORM.pdf .

Notes:

Question # (Question ID):	13 (95)	Are there written standard operating procedures (SOPS) outlining alignment methods for all Class 3 B or 4 or Embedded Class 3 B or 4 LASER systems.
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: SOPS Alignment - Provide written SOPs outlining alignment methods. Reference: LASER Safety Manual: Section 12.4 ANSI Z136.1, 4.4.5.1. Documentation forms can be found at http://www.utoledo.edu/depts/safety/docs/Lab_Safety/UT_LASER_SOP_FORM.pdf .

Notes:

PPE Control Measures

Question # (Question ID):	14 (96)	Has proper eye protection been provided?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: Eyewear - Contact the LSO to help determine the proper eye protection needed.

Notes:

Question # (Question ID):	15 (97)	Was the protective eyewear inspected before LASER use?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	

Notes:

Question # (Question ID):	16 (98)	Were warning signs posted stating eye protection is needed?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	

Notes:

Question # (Question ID):	17 (99)	Were extra pairs of protective LASER glasses or goggles available at each entry?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	18 (100)	Were windows appropriately covered?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	19 (101)	Is all LASER protective eyewear labeled with the optical density and wavelength(s) for which protection us afforded?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: Eyewear Labeling - Contact the LSO or eyewear manufacture to have the eyewear properly labeled. Reference: LASER Safety Manual: Section 12.6. ANSI Z136.1, Section 4.6.
Notes:		
Question # (Question ID):	20 (102)	Is a blocking barrier, screen, or curtain, which can block or filter the laser beam being used around the controlled area, including all windows?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	21 (103)	Are the doors interlocked to deactivate the LASER?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: Barrier - Install barrier material or door interlocks. Reference: LASER Safety Manual: Section 12.6. ANSI Z136.1, Section 4.6.
Notes:		
Question # (Question ID):	22 (104)	If there is a UV LASER present, is there skin protection available?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	LASER Safety Corrective Actions: UV Protection - Provide UV protection, such sunscreen type lotion, lab coat, gloves, etc. Reference: LASER Safety Manual: Section 12.8. ANSI Z136.1, Section 4.6.
Notes:		
Engineering Controls		
Question # (Question ID):	23 (105)	Were all foot pedals verbally identified and properly placed?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	24 (106)	Was the foot pedals electrical wiring inspected before use?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	25 (107)	Were any glass, metal or Teflon rods used?
Status/Due date	N/A	08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 26 (108) Were any materials used that were not labeled "LASER safe" or known to be "LASER safe"?

Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 27 (109) Was the key removed from the LASER after use and stored properly?

Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Keys - Always remove the key from the LASER or LASER System when not in use. Reference: LASER Safety Manual: Section 12.8.

Notes:

Question # (Question ID): 28 (110) Is the LASER system securely mounted to a stable platform?

Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Stable Mounting - Provide stable mounting for all LASERs. Reference: LASER Safety Manual: Section 11.1.

Notes:

Question # (Question ID): 29 (111) Is the path of the LASER beam clearly identified and ensured not to cross into public areas or traffic pathways?

Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: LASER Beam Pathway - Clearly identify all LASER beam pathways or have them enclosed. Reference: LASER Safety Manual: Section 11.1.

Notes:

Question # (Question ID): 30 (112) Are all class 4 LASER beams terminated at the end of thier useful path?

Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Beam Stops - Provide beam stops. Reference: LASER Safety Manual: Section 11.1, 12.3. ANSI Z136.1, Section 4.3.

Notes:

Question # (Question ID): 31 (113) Has the NHZ been identified and kept within a controlled area?

Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: NHZ - Identify the NHZ or designate the entire room as the NHZ. Reference: LASER Safety Manual: section 12.0. ANSI Z136.1, Section 41.1.

Notes:

Question # (Question ID): 32 (114) Are all non-enclosed LASER beams kept outside the normal eye-level range, which is between 1.2 to 2 meters from the floor?

Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Non-enclosed LASER - Move the LASER system so the beam is below 1.2 meters or above 2 meters from the floor or have the beam enclosed. Reference: LASER Safety Manual: Section 11.1.

Notes:

Question # (Question ID): 33 (115) Are all LASER systems enclosed within a protective housing?

Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Protective Housing - Provide a protective housing that is approved by the LSO. Reference: LASER Safety Manual: Section 12.3. ANSI Z136.1, Section 4.3.

Notes:

Question # (Question ID): 34 (116)
Are all LASERS or LASER systems equipped with a key switch or master switch which shall effect beam termination and/or system shutoff?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Key Switch - Have a key switch or master which installed for each LASER system. Reference: LASER Safety Manual: Section 12.3. ANSI Z136.1, Section 4.3.

Notes:

Question # (Question ID): 35 (117)
Is there a circuit breaker associated with each LASER system?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Circuit Breaker - Contact Plant Operations to have a separate circuit breaker installed for the LASER or LASER system. Reference: LASER Safety Manual: Section 12.3. ANSI Z136.1, Section. 4.3. OSHA

Notes:

General Housekeeping - Egress - Fire Safety
Question # (Question ID): 36 (118)
Are all work areas kept clean?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

General Housekeeping and Egress: Housekeeping and Egress - Ensure the maintenance of housekeeping standards. Reference: LASER Safety Manual: Section 12.9.

Notes:

Question # (Question ID): 37 (119)
Are there any trip hazards?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

General Housekeeping and Egress: Trip Hazards - Remove all trip hazards. Reference: LASER Safety Manual: Section 12.9.

Notes:

Question # (Question ID): 38 (120)
Are any exits, walkways, hallways, emergency equipment, or utility controls blocked?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

General Housekeeping and Egress: Blocked Equipment, exits, walkways etc. - Clear all exits, walkways, hallways and provide access to emergency equipment, and utility controls. Reference: LASER Safety Manual: Section 12.9.

Notes:

Question # (Question ID): 39 (121)
Are doorstops or other means of propping doors open being used?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

General Housekeeping and Egress: Door Propping - Remove all devices that are used to prop open doors. Reference: LASER Safety Manual: Section 12.9.

Notes:

Question # (Question ID): 40 (122)
Were non-reflective instruments used?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 41 (123) Were non-flammable prep solutions used?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 42 (124) Was a fire extinguisher available?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

 Clinical Laser

Question # (Question ID): 43 (125) Is the LASER located in a clinical area? If not, set the Clinical Laser question group to N/A.
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 44 (126) Did the LASER operator function independently of the circulating nurse?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

LASER Safety Corrective Actions: Operator - The LASER operators only job function is LASER operation and safety; all other staffing required for the case must be present in addition to the LASER operator. Reference: UT Procedure #HM-08-002 (LASER Systems) LASER Safety Manual: Section 13.2.

Notes:

Question # (Question ID): 45 (127) Was a LASER checklist completed?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 46 (128) Was the LASER tested for proper function and beam alignment prior to the case?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 47 (129) Was Technology Support notified?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 48 (130) Was the LASER activated only by the surgeon or resident under direct supervision of the surgeon?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 49 (131) Was the LASER placed in "standby" if the surgeon removed their hands or eyes from the field or the LASER equipment?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 50 (132) Did any situation determined to be "unsafe" arise during the LASER case?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 51 (133) Was wet draping material used around the LASER site?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 52 (134) Was a basin of saline or water (1000cc) available in case of fire?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 53 (135) Was the LASER procedure on the lower bowel?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 54 (136) Was the LASER procedure on the trachea?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 55 (137) Were patient's eyes properly protected for the particular LASER procedure?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 56 (138) Were all personnel within the OR wearing appropriate protective eyewear?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 57 (139) Did the LASER procedure utilize a microscope or endoscope?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 58 (140) Were ebonized or matted instruments used during the LASER procedure?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID): 59 (141) Were instruments covered with wet towels or gauze to decrease reflection?
Status/Due date N/A 08/25/22

Priority/Recommendation: Intermediate

Notes:

Question # (Question ID):	60 (142)	Were LASER masks worn by all present during the LASER procedure?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	61 (143)	Were gloves worn during the procedure?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	62 (144)	Was a smoke evacuation unit used during the LASER procedure?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	63 (145)	Was it laryngoscopy procedures and were regular suction tubing & canisters used?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	64 (146)	If fluids were present was an evacuator suction bottle used in conjunction with the smoke evacuator?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	65 (147)	Was the smoke evacuation tubing kept in close proximity (less than 1") to the LASER tissue interaction site?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	66 (148)	Are filters in the smoke evacuator changed according to the manufacture recommendations and properly discarded in red biohazard waste bags?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	67 (149)	If an endotracheal tube was used, was it a "LASER safe endotracheal tube?"
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		
Question # (Question ID):	68 (150)	Was a plastic vaginal or rectal speculae used?
Status/Due date	N/A	08/25/22
Priority/Recommendation:	Intermediate	
Notes:		