



Export Control Compliance Program Guidelines
July 2018

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Acknowledgements: Special thanks to Liz Rodriguez, former Associate Counsel, Office of the General Counsel, University of Massachusetts for her invaluable contributions to this work. The information in this document has been derived from sources including the Massachusetts Export Center, Massachusetts Institute of Technology, Rochester Institute of Technology, Stanford University, University of Florida, University of Texas Arlington, Georgia Tech, University of Maryland, Oklahoma State University, and the Department of Commerce, Bureau of Industry and Security. Many thanks to all of you!

INTRODUCTION

Export controls and trade sanctions are the United States laws and regulations that regulate and restrict the release of critical technologies, software, equipment, chemical, biological materials and other materials, and services to foreign nationals and foreign countries for reasons of foreign policy and national security.

These laws apply to virtually all fields of science and engineering and restrict the shipment, transmission, or transfer of certain commodities, software, technology and services from the U.S. to foreign countries. Deemed exports, i.e., the release of controlled information to foreign nationals, even if located in the U.S., are also restricted under these laws and regulations. Export control laws apply to **all** activities – not just sponsored research projects.

An export is:

- Shipment of a controlled commodity, equipment, material, or software outside of the U.S.
- Disclosing controlled technology or technical data to a foreign national, whether in the U.S. or abroad. (Such exports are considered to be a “deemed” export to the foreign national’s home country.)
- Performing technical assistance or defense services for or on behalf of a foreign national, whether in the U.S. or abroad

The following high risk disciplines have been designated for particular focus for export control compliance at UMass Lowell: Engineering, Physics, Space Sciences, Research with Lasers, Research with Encrypted Software, and Research with Controlled Chemicals, Biological Agents, and Toxins.

The following are factors to consider in determining the applicability of export regulations:

- 1) Is the activity considered fundamental research? (Will research results be published and publicly available?)
- 2) Is the activity limited to teaching or instructional activities?
- 3) Is there a physical export of a good?
- 4) Are foreign nationals restricted from participating in the activity?
- 5) What is the Item’s Export Control Classification Number (ECCN) or U.S. Munitions List (USML) category?
- 6) Where is it going (country)?
- 7) Who is the end-user (person or entity)? What is the intended end use?
- 8) Are you screening for persons or entities identified on any lists of sanctioned or barred persons or entities?
- 9) Is a license required? If so, is enough time allowed to secure one?
- 10) Will the activity involve a sanctioned or embargoed country?

These guidelines outline processes for members of the UMass Lowell community to follow to ensure that UMass Lowell is in compliance with all export control laws and trade sanctions.



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OFFICE OF THE CHANCELLOR

UMass Lowell is fully committed to compliance with the export control laws and regulations of the United States, and has established a comprehensive export control compliance program as part of this commitment. The UMass Lowell Office of Institutional Compliance (OIC) is charged with oversight of export control matters on campus (www.uml.edu/Research/OIC/).

U.S. export controls are increasingly complex, and include laws and regulations enforced by multiple government agencies. Among these are the Departments of Commerce (EAR: Export Administration Regulations), State (ITAR: International Traffic in Arms Regulations), and Treasury (OFAC: Office of Foreign Assets Control). Export controls include restrictions on various activities, such as:

- the physical export of items and technology;
- the disclosure of certain information to foreign nationals, even within the U.S. ("deemed exports");
- providing certain training to foreign nationals or entities; and
- providing information or services to sanctioned persons and countries.

Accordingly, there are multiple activities at UMass Lowell that require OIC review and approval to ensure compliance with these controls. Included among these activities are ANY physical shipment or mailing from the U.S., all international travel, visits by foreign persons to UMass Lowell, and international collaborations, to list a few. Activities that are found to be in violation of these laws and regulations are punishable under both civil and criminal sanctions. These penalties can apply to both UMass Lowell and the individual violator.

It is the mission and policy of UMass Lowell to conduct research and educational activities openly and without prohibitions on participation or dissemination, whenever possible. As a result, the requirements of the export control laws can often be satisfied through reliance on available exclusions for educational information and information in the public domain. OIC can assist faculty and staff with determining if the fundamental research exclusion (FRE) or other exemption applies or, if needed, provide assistance with an application for an export license.

It is the responsibility of UMass Lowell faculty, administrators, and staff to be aware of and comply with these federal laws and all UMass Lowell policies and procedures. UMass Lowell's Office of Institutional Compliance offers online or in-person export control training, and is available to assist all faculty, staff and students to interpret and meet the regulations. We encourage you to contact OIC with any questions, and in advance of any anticipated activities that might be impacted by these regulations.



Jacqueline Moloney, Chancellor

Date 7/12/18

FEDERAL LAWS, REGULATIONS, AND PENALTIES

Three U.S. Government agencies have primary export control regulatory responsibilities. The Department of Commerce through its Export Administration Regulations (EAR), the State Department through its International Traffic in Arms Regulations (ITAR) and the Arms Export Control Act (AECA), and the Treasury Department through the Office of Foreign Assets Control (OFAC) administer the export control laws and trade sanctions. The Commerce Department administers the Commerce Control List (CCL) and the State Department administers the U.S. Munitions List (USML).

The U.S. Government controls exports on a case-by-case basis, examining four factors: the destination, the good, software, technology, or service, the end-user, and its end-use.

Law	Department	Covers
EAR	Commerce	Dual-use goods, technology, chemicals and software, low level military items
ITAR	State	Military items; certain space-related technology and research
OFAC	Treasury	Trade prohibitions with sanctioned countries/entities

EAR and ITAR apply to the transfer of specific physical items and information and the provision of specific services to persons and entities *outside* the U.S. (exports), and to the disclosure of specific information and the provision of specific types of services to foreign nationals even *inside* the U.S. (deemed exports).

OFAC regulations restrict transactions with embargoed and sanctioned countries, persons and organizations involved in terrorism, drug trafficking, and proliferation of weapons of mass destruction. Even when exclusions to the EAR or ITAR apply, OFAC may prohibit payment, travel, and the transfer of items, assets, and services of value to sanctioned nations (check the OFAC website www.treas.gov/ofac for the latest information about embargoed countries).

The majority of exports do not require government licenses. Barring a prohibited end use or user, only certain commodities, software, and technology require a license for export. An export license is usually required for one of the following reasons:

- The nature of the export has actual or potential military applications or economic protection issues.
- Government concerns about the destination country, organization, or individual
- Government concerns about the declared or suspected end use or the end user of the export

Even if an item or technology appears on lists of controlled items, there may be exemptions, exclusions, or exceptions that apply, such as the exclusion for “fundamental research” (for technology only – does not apply to the export of physical items). For research to be considered “fundamental research”, it must be basic or applied research, and there cannot be personnel access restrictions or publication restrictions that apply.

The University will assist any member of the University community in complying with export control laws and trade sanctions, including securing licenses from U.S. Government agencies, where appropriate. However, the primary responsibility rests with the faculty member or

researcher as the individual most informed about the contemplated project and the technical nature and properties of the goods, software and technology.

Faculty and other researchers are responsible for:

- Knowing the classification of and export compliance requirements for the equipment, software, chemicals, materials, and technology they handle, lease or procure;
- Knowing whether the proposed research project will be subject to export control restrictions due to publication or other dissemination restrictions, or personnel access restrictions;
- Knowing the classification of and export compliance requirements for company proprietary information they receive under a confidentiality obligation;
- Having an effective security plan to protect export controlled information in their possession, taking into account foreign nationals under their supervision;
- Complying with all export control requirements that apply to physical shipments, including proper shipping permits and making AES filings;
- Making export control analysis (including screening for sanctioned or embargoed persons, entities and countries) prior to foreign travel, sponsoring foreign visitors at UMass Lowell, engaging in research with foreign collaborators, engaging in research sponsored by foreign persons, or conducting research in foreign countries

More information, materials and forms are available from the OIC website at:

<https://www.uml.edu/Research/OIC/export-controls/default.aspx>

The classification (ECCN) of any Commerce controlled good, software, or technology can be found on the Department of Commerce web page at

<http://www.bis.doc.gov/index.php/regulations/commerce-control-list-ccl> Also, there is free online training available from the Department of Commerce at:

<http://www.bis.doc.gov/index.php/compliance-a-training/export-administration-regulations-training/online-training-room>

A helpful way to analyze exclusions under the EAR for publicly available information is to review [Part 734 of the EAR \(Scope of Regulations\)](#). For items and technology of a military nature (including certain space-related items and technology), review the categories and descriptions in the [USML](#).

Other Federal Laws

In addition to export control laws, select agents and toxins are also regulated by the Centers for Disease Control and Prevention and the Department of Agriculture. For more information about the regulations refer to <http://www.selectagents.gov/index.html> However, these materials are not exclusively regulated by the CDC and USDA. Release of these materials often requires an export license even where transfer exceptions may be available under select agents and toxins regulations.

Other activities are exclusively regulated by other laws and agencies. Examples include the Nuclear Regulatory Commission, the Department of Energy, the Food and Drug Administration, and the Drug Enforcement Administration, and those laws and regulations must be consulted and complied with.

As UMass Lowell expands its international footprint, there are other U.S. laws and regulations which can come to bear on the activities of both the University and its personnel. The Foreign Corrupt Practices Act (FCPA) is the primary U.S. anti-bribery law, and it prohibits, directly or through an agent or intermediary, the giving, offering, or promising anything of value to a foreign government official in order to obtain or retain business, to secure an improper business advantage, or to influence them to misuse their authority. In addition, UMass Lowell intends to compete fairly and honestly, not through unethical or illegal business practices in restraint of trade which may reduce competition. UMass Lowell abides by applicable antitrust laws whenever alliances are formed and wherever business is conducted. It is prohibited to enter into agreements with competitors to influence prices, to boycott specific suppliers or customers, to allocate customers or territories, to limit production or sale of products or product lines for anti-competitive purposes, or to engage in other anti-competitive behavior. Any suspected violations of, or solicitations to violate, any corruption or anti-trust laws should be immediately reported to the UMass Lowell Office of Institutional Compliance (OIC).

Penalties

There are severe civil and criminal penalties, including fines and imprisonment, for violating the export control laws and trade sanctions and both the organization and the individuals involved are subject to these penalties. The University and the individual(s) involved may also lose their ability to export, and/or be suspended or debarred from government contracting. The criminal and civil penalties for unlawful export and disclosure of information in violation of U.S. export control laws and trade sanctions include the following, depending on the items involved and the jurisdiction:

EAR: Criminal violations by the university can incur penalties up to \$1 million for each willful violation. For individuals, these penalties can reach up to \$1 million or 20 years imprisonment, or both, per violation. Civil penalties for both the university and individuals can exceed \$295,000 per violation, or two times the value of the export, whichever is greater. These violations can also result in a denial of export privileges as well as other potential collateral penalties.

ITAR: Criminal penalties can reach up to \$1 million per violation and 20 years imprisonment for individual willful violations. Civil penalties imposed upon departments, agencies, and officials can exceed \$1,000,000 per violation. A person or university found to be in violation of the ITAR (under the Arms Export Control Act) can be debarred from contracting with the government and could lose their export privileges.

OFAC: Penalties will range depending upon the sanction regime in question. Criminal violations by the university can reach up to \$10 million per violation, and criminal penalties for individuals can reach \$5 million per violation or 30 years in prison, or both. Civil penalties can be imposed in excess of \$1,000,000 per violation, or two times the transaction in question, whichever is greater.

KEY TERMS AND DEFINITIONS

Even common words have very specific meanings within the export control laws. For additional guidance, see [EAR definitions](#) or [ITAR definitions](#). Following are some commonly used terms:

Commerce Control List (CCL) - List of items under the export control jurisdiction of the Bureau of Industry and Security, of the Department of Commerce. The CCL is found in Supplement 1 to Part 774 of the EAR.

The CCL is divided into ten categories: (0) Nuclear Materials, Facilities and Equipment, and Miscellaneous; (1) Special Materials and Related Equipment, Chemicals, "Microorganisms," and "Toxins"; (2) Materials Processing; (3) Electronics (4) Computers; (5) Telecommunications and "Information Security"; (6) Sensors and Lasers; (7) Navigation and Avionics; (8) Marine; (9) Aerospace and Propulsion.

Every CCL category is subdivided into the same five groups, designated by the letters A through E, as follows: (A) Systems, Equipment and Components; (B) Test, inspection and production equipment; (C) Material; (D) Software; and (E) Technology. ECCNs are designated for specific items or materials.

Consolidated Screening List – This is a list of combined information that must be used to check for compliance purposes that is updated and maintained by the Commerce, Treasury, and State Departments and is consolidated for ease of screening. The website is http://export.gov/ecr/eg_main_023148.asp.

Deemed Export – Releasing or otherwise transferring “technology” or source code (but not object code) to a foreign person in the United States (or abroad). (EAR definition) The EAR citation is 15 CFR 734.13(b). Deemed exports do not include the mere transfer or access to controlled articles or materials without any associated information. It is “deemed” to be an export to the home country of the foreign entity or individual. Deemed exports may occur through such means as a demonstration, oral briefing, or plant visit, as well as the electronic transmission of non-public information or software. More information about “deemed exports” under the EAR is available [here](#). Related ITAR definitions are 1) Disclosing (including oral or visual disclosure) or transferring technical data to a foreign person, whether in the United States or abroad; and 2) Performing a defense service on behalf of, or for the benefit of, a foreign person, whether in the United States or abroad. The ITAR citation are 22 CFR 120.17(4) & (5).

Deemed Re-export – The release of controlled technology by a foreign national who has been licensed to receive it to a foreign national of another country who has **not** been licensed to receive it. For example, ECCN 5E001 technology may be exported to a university in Ireland under the license exception for technology and software, but might require a deemed re-export license authorization before being released to a Russian foreign national student or employee of that university in Ireland.

Defense Article - Any item or technical data designated in the U.S. Munitions List. (ITAR 120.6)

Defense Service - Providing of assistance (including training) anywhere (inside the United States or abroad) to foreign persons in connection with the design, development, engineering, manufacture, production, assembly, testing, repair, maintenance, modification, operation, demilitarization, destruction, processing or use of a defense article, the furnishing of any related technical data, or military training or advice. (ITAR 120.9) The *Bona Fide* Employee Exemption does not apply in a situation where the employee will be provided a Defense Service.

Debarred Parties List - List of individuals denied export privileges under ITAR and maintained by the State Department. [Refer to the Consolidated Screening List for information to conduct a screen.](#)

Denied Persons List - A list of persons who have been issued a denial order from the Commerce Department's Bureau of Industry and Security (BIS). U.S. exporters and third parties in general are prohibited from dealing with these persons in transactions involving U.S. items. [Refer to the Consolidated Screening List for information to conduct a screen.](#)

Dual-Use - Items that have both commercial and military or proliferation applications. While this term is used informally to describe items that are subject to the EAR, purely commercial items are also "subject to the EAR", as are certain "low level" military items (see §734.2(a) of the EAR). Items with no specific ECCN are designated as "EAR99."

Educational Information – Under the EAR, information taught in course catalog courses and teaching laboratories associated with these course catalog courses is not export controlled. (Certain encryption software and technology does not automatically meet this exclusion. UMass Lowell personnel working with such software or technology should consult with OIC to help determine the scope of applicable export controls.) (15 CFR 734.2 & 734.3) Under the ITAR, information or software concerning general scientific, mathematical or engineering principles commonly taught in universities or information in the public domain are not subject to export controls. 22 CFR 120.10 –11.

Entity List – The Entity List identifies foreign parties that are prohibited from receiving some or all items subject to the EAR unless the exporter secures a license. Those persons present a greater risk of diversion to weapons of mass destruction (WMD) programs, terrorism, or other activities contrary to U.S. national security or foreign policy interests. [Refer to the Consolidated Screening List for information to conduct a screen.](#)

Export – Can include any of the following: 1) actual shipment of any covered goods or items; 2) the electronic or digital transmission of any covered goods, items or related goods or items; 3) any release or disclosure, including verbal disclosures or visual inspections, of any controlled technology, source code, or technical data to any foreign national; or 4) transferring registration, control, or ownership of a controlled space or aircraft to a foreign person.

Export Administration Regulations (EAR) - Regulations promulgated and implemented by the Department of Commerce that regulate the export of commercial, "dual use", and "low level" military items, software and related technology. This includes items identified on the Commodity Control List (CCL), Title 15 CFR 774, Supplement 1, as well as restrictions on exports to specified persons, entities, countries, and end-uses.

Export Control Classification Number (ECCN) - Identifies the Commerce Control List classification and related export requirements of commodities, software and technology subject to the export licensing authority of the Department of Commerce, Bureau of Industry and Security. All commodities, software and technology subject to the EAR not specifically identified on the CCL are classified as “EAR99.”

Foreign Corrupt Practices Act (FCPA)- The primary U.S. anti- bribery law which prohibits, directly or through an agent or intermediary, the giving, offering, or promising anything of value to a foreign government official in order to obtain or retain business, to secure an improper business advantage, or to influence them to misuse their authority.

Foreign National – Under the EAR, means any person who is not a citizen or permanent resident of the United States. Under the EAR, the term applies to “persons lawfully admitted for permanent residence in the United States and does not apply to persons who are protected individuals (i.e. has been admitted as a refugee or granted asylum). The term also refers to foreign entities.

Foreign Person - The ITAR uses the term “foreign person” rather than “foreign national” and it applies to any natural person who is not a lawful permanent resident or who is not a “protected individual”, and may also include any corporation, business association, partnership society, trust or any other entity, organization or group that is incorporated to do business in the United States. This also includes any foreign governmental entity.

Fundamental Research – Fundamental research means research in science, engineering, or mathematics, the results of which ordinarily are published and shared broadly within the research community, and for which the researchers have not accepted restrictions for proprietary or national security reasons. (EAR definition). Under the ITAR, the definition currently only applies to such research conducted at accredited institutions of higher learning. **Fundamental Research Exclusions** - EAR provides that university research normally will be considered as fundamental research unless the university or its researchers accept personnel access restrictions or restrictions on publication of scientific and technical information resulting from the project or activity. The EAR specifically permits limited prepublication reviews by research sponsors to prevent inadvertent divulging of proprietary information provided to the researcher by the sponsor or to insure that publication will not compromise any patent rights. The EAR citation is 15 CFR § 734.8.

The ITAR states that university research will not be deemed to qualify as fundamental research if: (1) the university or its researchers accept any restrictions on publication of scientific and technical information resulting from the project or activity; or (2) the research is federally funded and specific access and dissemination controls protecting information resulting from the research have been accepted by the university or the researcher. The ITAR citation is 22 CFR § 120.11(a)(8).

Note: Under the EAR and ITAR, even if no publication restriction exists, the fundamental research exclusion does not apply to the physical export of goods.

International Traffic in Arms Regulations (ITAR) - 22 CFR Sections 120-130, are the regulations promulgated and implemented by the Department of State which regulate

defense articles and defense services and related technical data listed on the U.S. Munitions Control List (USML), 22 CFR § 121. The ITAR are available [here](#).

Lists to Check – All transactions with potential export restrictions should be checked against the published lists of prohibited countries, persons and entities before proceeding. Most of the of the lists can be accessed from http://export.gov/ecr/eg_main_023148.asp

OIC – The UMass Lowell Office of Institutional Compliance.

Public Domain – Under the ITAR, information that is published and that is generally accessible or available to the public is not export controlled. Examples include: (a) sales at newsstands and bookstores; (b) subscriptions that are available without restriction to any individual who desires to obtain or purchase the published information; (c) second class mailing privileges granted by the U.S. government; (d) libraries open to the public or from which the public can obtain documents; (e) published patent applications and issued patents; (f) unlimited distribution at a conference, meeting, seminar, trade show, or exhibition, generally accessible to the public, in the United States; (g) any public release after approval by the cognizant U.S. government agency; and (h) fundamental research in science and engineering at accredited institutions of higher learning in the U.S. where the resulting information is ordinarily published and shared broadly in the scientific community. This is distinguished from research of which the results are restricted for proprietary reasons or specific U.S. Government access and dissemination controls. University research is not considered fundamental research if:

- (i) The University or its researchers accept other restrictions on publication of scientific and technical information resulting from the project or activity, or
- (ii) The research is funded by the U.S. Government and specific access and dissemination controls protecting information resulting from the research are applicable. 22 CFR 120.11

Publicly Available – The EAR uses the term “publicly available” rather than “public domain.” Under the EAR, information is publicly available when it becomes generally accessible to the public.

Re-export - An actual shipment or transmission of items subject to export regulations from one foreign country to another foreign country. For the purposes of the EAR, the export or re-export of items subject to the EAR that will transit through a country or countries to a new country, or are intended for re-export to the new country, are deemed to be exports to the new country.

Sanctioned Country – Even when exclusions to EAR or ITAR apply, U.S. Treasury Department, Office of Foreign Assets Control may prohibit payment, travel, and the transfer of items, assets, and services of value to sanctioned nations (check the OFAC website www.treas.gov/ofac for the latest information about embargoed countries).

Specially Designated Nationals (SDN) - Any person who is determined by the U.S. Secretary of the Treasury to be a specially designated national for any reason under regulations issued by the Office of Foreign Assets Control. U.S. persons are generally prohibited from having transactions with the persons listed in the Specially Designated Nationals List. The listed is located at <http://www.treas.gov/offices/enforcement/ofac/sdn/>

Technical Assistance - Technical assistance may take forms such as instruction, skills training, working knowledge, consulting services, and may also involve the transfer of technical data.

Technical Data - Information required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance, or modification of controlled articles. These may take the form of blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, photographs, documentation, instructions, or manuals and instructions written or recorded on other media or devices such as disk, tape, or read-only memories. The ITAR definition does not include information concerning general scientific, mathematical, or engineering principles commonly taught in schools, colleges, and universities, or information in the public domain, general system descriptions, or basic marketing information on function or purpose. (ITAR 120.10).

Technology - Any specific information and know-how (whether in tangible form, such as models, prototypes, drawings, sketches, diagrams, blueprints, manuals, software, or in intangible form, such as training or technical services) that is required for the development, production, use, operation, installation, maintenance, repair, overhaul, or refurbishing other terms specified in ECCNs on the CCL that control “technology”) of an item. The information takes the form of technical data or technical assistance. *See* definition of “**use**” under the EAR below.

Use (Under the EAR) - Operation, installation (including on-site installation), maintenance (checking), repair, overhaul refurbishing of a good. (Depending on the item, a single element might be controlled, or all six elements might be required to meet the definition.)

TRAINING PROGRAM

The training program is a critical component of maintaining compliance with export control laws. The primary goal of training is to increase awareness of and maintain compliance with export control laws and trade sanctions. The program will educate the UMass Lowell community of its responsibilities under these laws and the UMass Lowell procedures in place for ensuring compliance. It is especially critical that faculty and administrative staff that direct or participate in research projects involving export controlled goods, technology or software participate in training provided through the Office of Institutional Compliance.

Training Topics

Training includes an overview of the purpose of export controls, how export regulations apply to different activities, review of definitions and regulations, the importance of compliance, description of the high risk disciplines, and the types of exclusions, exemptions and exceptions that commonly apply. In addition, training covers security measures that should be followed, steps to follow for physical exports, instruction on how to determine the CCL or USML designation of items, information about applying for a license, when to suspect export control violations and red flags, internal review procedures, the importance of training, the importance of utilizing the OIC as a resource, and reporting of suspected violations.

The following introductory topics will be covered in faculty, staff and student training:

- Purpose of U.S. export control laws and UMass Lowell Export Control Guidelines
- Regulatory agencies and statutes governing exports
- What is an Export and What Regulations Apply
- Deemed Exports and Foreign Nationals Defined
- U.S. Munitions List and Commerce Control List
- General Prohibitions on End Use and End Users
- Screening Customers Using Lists of Denied and Restricted Persons and Countries
- How to detect suspicious and inconsistent behavior (red flags)
- Protection of intellectual property / elicitation techniques
- Screening for Embargoed Countries
- Fundamental research and educational information exclusions
- International visitors
- Examples of common license exceptions
- Who to contact about questionable transactions
- Enforcement of violations and severe sanctions and penalties
- Contact Persons for Further Assistance
- FAQs; Questions and Answers

Advanced Training Topics for Faculty, Administrative Staff and Students include:

- Contract language that restricts publication and personnel access
- Foreign sponsorship of research
- Physical export of goods and materials
- Nondisclosure agreements with foreign entities or persons
- Materials transfer agreements with foreign entities or persons

- Teaching or training activities that use or implement licensed technology
- Foreign Corrupt Practices Act (for faculty assigned to teach overseas)

Department Training

Special efforts will be taken to ensure that all departments in high risk disciplines such as Engineering, Physics, Space Sciences, Research with Lasers, Research with Encrypted Software, and Research with Controlled Chemicals, Biological Agents and Toxins receive training. For example, training may be scheduled during department meetings or other times which are convenient for those departments.

Technology Control Plan Training and Briefings

One-on-one training will be provided by OIC to researchers who are involved in projects confirmed to involve export controlled technology. The type of training, date, and who was trained is recorded and kept on file in the OIC.

Other Materials

While most training will be classroom style with opportunity for questions and discussion, additional information may be provided in the form of email notifications, institutional compliance newsletters and announcements, online training and information, and invited speakers. Useful materials and forms are available on the OIC website.

Training Options

Formal training is required annually for faculty members in the Colleges of Science and Engineering, unless they do not conduct research nor travel internationally. Additional or follow-up training is provided as often as requested by Departments or personnel who want to be updated on any changes in export compliance regulations. Training can be scheduled by contacting OIC for one-on-one training at any time throughout the year. Online training is also available anytime at <https://about.citiprogram.org/en/homepage/> and the training certification is sent to OIC for record keeping purposes by indicating your affiliation with UMass Lowell after you sign in with a username and password.

Training Records

All records of training sessions will be maintained by the OIC for a period of five years. The records shall include date and place of training, sign-in sheets signed by persons attending, list of speakers, and the subjects covered.

REGULATED ITEMS

ITAR Controlled Items

The Department of State Directorate of Defense Trade Controls (DDTC) administers export control of defense items under the International Traffic in Arms Regulations, 22 CFR 120- 130, pursuant to the Arms Export Control Act (AECA). Three terms are used to designate export controlled ITAR items: “defense articles,” “technical data,” and “defense services.” An item that also contains any ITAR controlled components then is also controlled under the ITAR.

Defense Article means any piece of equipment (or component or part thereof), or technical data (as defined below), that is listed on the USML.

Technical Data means any information which is required for the design, development, assembly, production, operation, repair, testing, maintenance, or modification of a defense article. Technical data may include drawings or assembly instructions, operations and maintenance manuals, and email or telephone exchanges where such information is discussed. However, technical data does not include general scientific, mathematical, or engineering principles commonly taught in universities, information in the public domain, general system descriptions, or basic marketing information on function or purpose.

Defense Services means

(1) The furnishing of assistance (including training) to foreign persons, whether in the United States or abroad in the design, development, engineering, manufacture, production, assembly, testing, repair, maintenance, modification, operation, demilitarization, destruction, processing or use of defense articles;

(2) The furnishing to foreign persons of any technical data controlled under this subchapter (see § [120.10](#)), whether in the United States or abroad; or

(3) Military training of foreign units and forces, regular and irregular, including formal or informal instruction of foreign persons in the United States or abroad or by correspondence courses, technical, educational, or information publications and media of all kinds, training aid, orientation, training exercise, and military advice.

For the International Traffic in Arms Regulations, go [here](#).

Identification, Receipt and Tracking of ITAR Controlled Items and Controlled Technology

An Access Control Plan (ACP) or Technology Control Plan (TCP) is required as a means for tracking and monitoring compliance when projects involving ITAR controlled items or export controlled technical data are identified. The Director of the OIC is responsible for oversight and licensing, including technical assistance agreements, of all projects in which defense articles are manufactured. This would include projects involving chemical or biological agents covered under USML Category XIV. Any such TCP for ITAR controlled items MUST bar access by all foreign persons (unless a bona fide exception is available), as there is no country-by-country analysis as in the EAR regulatory framework.

UMass Lowell has a policy to work towards meeting the Fundamental Research Exemption but in some cases does accept projects that involve actual receipt of or fabrication of defense articles. There are research groups who have ITAR-controlled activities and/or equipment at UMass Lowell. TCPs are in place to protect such activities and equipment. In addition, OIC requests to be notified by the Procurement Office of any purchases of items that are identified by the vendor as ITAR-controlled. If any are identified, OIC contacts the purchaser, informs them of the requirements to secure the item, and helps develop a security plan to allow for use of the item by authorized persons only.

Definition of Export Under the ITAR

The ITAR defines the term 'export' broadly. The term applies not only to exports of tangible items from the U.S. but also to transfers of intangibles, such as technology or information. The ITAR includes the release of controlled technical data to foreign nationals, even in the U.S.

Authorization to Export

Any U.S. person or entity that manufactures, brokers, or exports defense articles or defense services must register with the DDTC and secure a license prior to any export. Excluded from these regulations are activities limited to the creation of unclassified technical data, or the fabrication of defense articles for experimental or scientific purposes, including research and development. UMass Lowell does not engage in the manufacturing of defense articles.

Items Subject to the EAR

The Department of Commerce's Bureau of Industry and Security (BIS) regulates the export of most products, software and technology under the Export Administration Regulations (EAR), 15 CFR §§ 730-774. The EAR covers a wide range of products and technology, the product classification process is highly technical, and most importantly, the need for a license depends not only on the type of product but on its final destination.

Generally, most items of U.S. origin, or physically located in the U.S., are subject to the EAR. Foreign manufactured goods are generally exempt from the EAR re-export requirements if they contain less than a *de minimus* level of U.S. content by value. The EAR requires a license for the exportation of a wide range of items with potential 'dual' commercial and military uses, or which are otherwise of strategic value to the U.S. Generally, only items listed on the Commerce Control List (CCL) require a license prior to exportation but the final determination will depend upon where and to whom the material or item is being sent. The items are designated by "ECCNs." Items not assigned an ECCN are designated as "EAR 99" and can generally be exported without a license, unless the export is to an embargoed country, or to a prohibited person or end-use. Items are further organized into 5 groups as follows:

Systems, Equipment and Components mean finished or unfinished goods ranging from high-end microprocessors, to airplanes, to ball bearings.

Test, Inspection and Production Equipment includes equipment specifically for manufacturing or testing controlled commodities, as well as certain generic machines, such as computer numerically controlled manufacturing and test equipment.

Material includes certain alloys and chemical compounds.

Software includes software specifically associated with particular commodities or manufacturing equipment, as well as any software containing encryption and the applicable source code.

Technology means information required for the development, production or use of a good and takes the form of technical data and technical assistance. For some ECCNs, there may be a distinction between the types and levels of technology controlled.

For Export Administration Regulations and items subject to the EAR, visit the [BIS website](#).

For assistance evaluating whether items or activities are subject to the EAR, contact the OIC Export Control Compliance Manager.

Export Control Classification Number (ECCN)

Goods, software and technology on the CCL are primarily commercial in nature, or “low level” military items and technology. The CCL categorizes the goods and related technology covered into ten topical categories. Items are further designated by Export Control Classification Numbers (ECCNs). Items not assigned a specific ECCN fall under a catch-all category called “EAR99.”

In order to know whether you may export an EAR controlled item, first you have to know how it is designated under the Commerce Control List (CCL) and check for license exceptions. Second, you have to check the Country Chart. Third, you have to check the proposed end-user. Fourth, you have to check the proposed end-user. The flow chart later in this document shows the steps to determining whether or not a license is required under the EAR.

In determining the classification of an entire system, you generally consider the nature of the entire assembled system rather than the classification of individual components (with the exception of included information technology or encryption software). There are some helpful interpretations to assist you. See Interpretations 2 and 13 at 15 CFR 770.2. (By comparison, under the ITAR, a component that contains one single ITAR-controlled item would make the entire assembled system controlled.)

To determine the ECCN of any commodity, software or technology, review the control list on the Department of Commerce web page at <http://www.bis.doc.gov/index.php/regulations/commerce-control-list-ccl>. Also, there is free online training available from the Department of Commerce at <http://www.bis.doc.gov/index.php/compliance-a-training/export-administration-regulations-training>.

SECURITY PLANS

Security plans outlines security controls for export controlled projects and data. Projects involving export controlled technology and data must be approved by the Export Control Compliance Manager, Director of Institutional Compliance, and in some instances the Vice Chancellor for Research and Innovation (or his/her designee) and in some cases the Chancellor. While the President's Office, pursuant to Trustee Policy on Open and Free Dissemination of Research Results (5/10/72) historically required President's Office approval for such activities, UMass Lowell was allowed that authority in late 2014.

University researchers working with export controlled technical data shall have controls in place to protect data, technology, and/or materials and the systems/devices that store, transmit and process this data BEFORE any such work may be initiated. Technical data is defined under the ITAR at 22 CFR § 120.10, and CCL controlled technology is defined under the relevant ECCNs. For projects that require the use of technical data, guidance provided in the Guidelines are incorporated in the Technology Control Plan (TCP) and outlines various security controls for computer systems, technology, materials, data, and data transmission for controlled projects. Before researchers are authorized to begin such a project, the TCP must be approved and in place and all personnel working on the project must complete export compliance training. All personnel assigned to work on the project must be briefed on the limitations and sign off on the TCP before any work is initiated or materials are accepted. TCPs are customized for each activity and based on the type of data, technology, or materials that requires controls.

Physical Controls

Physical controls are required for all export controlled activities or materials controlled by the ITAR, EAR, or other set of regulations to protect the item/technology from unauthorized access. Controls are evaluated as the Technology or Access Control Plans (TCP/ACP) are developed and may include specific requirements to acquire TCP/ACP approval. This may include such things as specific hardware to secure areas, electronic key card access, signage to limit access, security badges, locked cabinets, etc. In addition, systems that store and process technical data must be located in a physically secure location (e.g., managed data center, locked office space). Specific terms for transmission of data are included in the TCP. Physical access to any rooms where export controlled activities take place are subject to monitoring and periodic review of access logs to ensure only authorized persons are entering the area.

Technical Data Controls

The technical data for the export controlled project shall be protected during storage, processing, and transmission. These controls apply to:

- the original technical data received from governmental agencies or other research sponsors or collaborators,
- copies made of the technical data,
- new technical data derived from the original technical data, and
- any new technical data generated for the project.

Controlled technical data should only be transmitted using industry standard encryption for secure communications for message transit and storage (such as the UMass Lowell Exostar service). No such information should ever be transmitted via unencrypted e-mail.

The following guidance shall be followed for all Technical Data usage and transmission:

- Servers and devices storing technical data shall be under the administrative control of the University and reside on the University network, UML OneDrive platform, or UML Exostar platform, as appropriate.
- Technical data stored on servers shall be encrypted using industry standard file and folder encryption.
- Full-disk encryption shall be used for technical data stored on any electronic devices - laptops, desktops, portable/removable storage.
- The campus Exostar service or UMass Lowell secure encrypted e-mail shall be used for collaborative secure access to technical data.
- Principal Investigators (PIs) are advised that technical data is not permitted on mobile devices (e.g., tablets, smart phones).
- PIs are also advised that the use of unencrypted email is prohibited for transmission of any export controlled data.
- Electronic and physical media storing technical data shall be disposed of securely when no longer needed (e.g., cross-cut shredding paper documents, degaussing, securely wiping, or physically destroying magnetic and flash media) or returned to the sponsor in a secure manner.
- When data security controls are required by a specific contract clause (e.g., DFARS 252.204-7012), the controls specified under such a clause must be followed.

Computer Controls

Computer systems storing, processing and transmitting the technical data shall be compliant with the *University Information Security Policy (BoT Doc. T10-089)*, based on the ISO 27002 controls. Controls are evaluated and implemented on a case by case basis by OIC and IT personnel. The controls shall include, but are not limited to the following:

Identification of Systems

- An inventory of computer systems that store, access and/or process technical data must be maintained. The inventory shall include serial numbers and operating system type and version for each system/device.
- Systems not identified for the export controlled project are prohibited from accessing the export controlled systems and data. These include mobile devices (smartphones, tablets), personal laptops, unsecured servers, and other unmanaged computer systems.

Network Security Controls

- Systems connected to the network shall have the following network security controls implemented:
- Connect only to the University wired or secure wireless network (i.e., eduroam [and at UMass Lowell only]). If connecting to a wireless network, 802.1.x protocol must be used.
- A host based firewall shall be configured to block all connections to the system other than the specific connections needed to perform the approved research.
- Periodic network based vulnerability scans and network penetration tests shall be performed at least annually by IT Security.
- Reside on the Campus network protected by the IPS (Intrusion Prevention System).
- In certain situations, computers involved in export controlled projects may be disconnected from the network. This is determined on a case by case basis and outlined in the TCP.

System Security Controls (for projects where the PI is allowed to remain on the network)

Systems connected to the network shall have the following systems-based security controls implemented:

- Authorized users, as identified in the TCP, must be on the campus central authentication systems (Active Directory/LDAP) using campus-issued user IDs to log in to the secure systems. (See Office of Information Technology (OIT) Acceptable Use of Information Resources Policy.)
- Each user shall have an individual login ID. Shared login IDs are prohibited.
- Default system and user/guest accounts shall be disabled on the systems.
- Passwords must meet the documented University password complexity criteria.
- System and application passwords shall be changed after 180 days, or after a user no longer needs access.
- Administrative access shall only be granted to U.S. citizens and permanent residents with a business need for elevated privileges.
- Users shall log in with restricted rights. Administrative rights will be revised as necessary on a case by case basis when certain restrictions apply.
- Systems shall be configured with a login inactivity timeout (e.g., 10 minutes) and with an account lockout mechanism that locks the account after more than 5 failed login attempts in a 15-minute period.
- Administrative access and functions on the servers or applications that access the confidential information must be logged. The logs should include the identity of the user, the date/time, and the operations performed.

- Systems and application logs shall be retained for 90 days.
- Anti-virus software with centralized management shall be installed on all systems (Windows and Macintosh).
- The anti-virus software shall be configured to update daily, scan files “On Access” and when removable media is installed, and shall be scheduled to scan fixed disks at least weekly.
- Systems shall be running a supported version of their respective operating system.
- Operating system and application patches must be installed in a timely manner, with critical patches installed within 48 hours of their release.
- Discovered vulnerabilities shall be remediated in a timely manner, with critical vulnerabilities fixed within 48 hours of notification.
- System backup media shall be stored in physically secure and locked facilities.
- Login accounts shall be removed or disabled once they are no longer needed (e.g., when a user leaves the project).
- System time shall be synced with accurate Network Time Protocol clock sources.
- Network and system services and processes that are not required for the specific research shall be shut down and disabled
- Administrative access to the systems shall only be granted to administrators who are not foreign persons under the ITAR at 22 CFR S120.16

Monitoring

System log and access shall be routinely monitored for unauthorized users or unauthorized access to technical data by IT Security or the Systems Administrator. However, systems not on the network will not be monitored but will be evaluated by OIC and IT personnel during the required periodic audit of the TCP.

Citizenship Verification

Citizenship status is one of many qualifications that must be met by persons proposing to participate in export-controlled projects because foreign persons are prohibited from accessing materials, systems, and/or technical data (unless expressly authorized under a lawful exemption or valid license). All persons who may be assigned to work on an export-controlled project must provide proof of U.S. citizenship and be cleared through the OIC and listed on the TCP. All persons assigned to a controlled project are required to sign a non-disclosure agreement confirming they will not export any export-controlled data, technology, materials, or information to any unauthorized person or to any foreign person.

Reporting Concerns and Possible Nonfeasance

The Principal Investigator (PI) is the person with primary responsibility for the lawful conduct of an export-controlled project. Any violations of these controls, and/or unauthorized access to

technical data must be reported immediately to the Principal Investigator, the OIC Export Control Compliance Manager, and the OIC Director.

Roles and Responsibilities

Office of Information Technology Information Security Office

- Provide applicable security software, including, but not limited to anti-virus software and others.
- Perform routine network-based vulnerability scans and network penetration tests as may be necessary.
- Provide assistance with research and evaluation of encryption solutions.
- Assist with response to any data security incidents involving systems storing export controlled technology and/or data.

Researchers & IT Support Staff

Researchers (including technicians and administrators) working with export controlled technologies and technical data, as well as the IT professionals supporting these projects, are responsible for complying with export regulations, terms of the TCP, and the security controls outlined above.

Office of Institutional Compliance (OIC)

OIC personnel oversee implementation of the TCP and evaluate and audit the TCP periodically (usually every six months). Any reports of security incidents or other problems should be reported to OIC immediately for evaluation and assessment.

KEY ISSUES IN UNIVERSITY ACTIVITIES

Export regulations require Universities to consider various activities that require compliance oversight. Considerations and subsequent actions depend on key management support, types of activities the university engages in, evaluation of the recipient, the destination, involvement of controlled technology, and governmental jurisdiction to determine how the regulations apply and whether a license must be obtained. There are multiple levels of oversight necessary for an effective export control compliance program (see diagram below). Most activities conducted at UMass Lowell are likely to qualify for license exclusions for information that is Publicly Available or in the Public Domain, such as the Educational Information Exclusion and the Fundamental Research Exclusion. Otherwise an export license may be required to allow for participation by foreign nationals or for foreign research collaborations.



Fundamental Research Exclusion (FRE)

The term “fundamental research” means basic or applied research in science and engineering, the results of which are ordinarily published and shared broadly within the scientific community. Fundamental research is distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons. Both the ITAR and EAR provide that information resulting from fundamental research is not subject to export controls. This is referred to as the Fundamental Research Exclusion (FRE).

Specifically, the EAR provides that the fundamental research exclusion applies so long as the university and its researchers do not accept restrictions on publication of scientific and technical information resulting from the project or activity, or personnel access restrictions. The EAR specifically permits customary prepublication reviews by research sponsors to prevent inadvertent divulging of proprietary information provided to the researcher by the sponsor or to insure that publication will not compromise any patent rights. The EAR citation is 15 CFR § 734.8.

By comparison, the ITAR states that university research will not be deemed to qualify as fundamental research if: (1) the university or its researchers accept any restrictions on publication of scientific and technical information resulting from the project or activity; or (2) the research is federally funded and specific access and dissemination controls protecting information resulting from the research have been accepted by the university or the researcher. The ITAR citation is 22 CFR § 120.11(a)(8).

The Office of Research Administration (ORA) carefully reviews proposed research projects to ensure the scope of the work qualifies for the fundamental research exclusion. If further reviews are needed, OIC works to complete the export control analysis, with the technical assistance of the PI.

Verbal or written “side deals” between a PI and sponsor to forego publication will invalidate the FRE and violate university policies that require that research shall be conducted openly and without prohibitions on the publication and dissemination of the results.

Under the EAR and ITAR, even if no publication restrictions or personnel restrictions apply, the fundamental research exclusion does not apply to the physical shipment of goods.

Sponsor or third-party trade secrets or other proprietary information used in a research project which are subject to a confidentiality obligation will continue to be subject to export controls, even though the research and the research results are covered by FRE.

A deemed export may occur if information, which is not otherwise publicly available, about the development, production or use of controlled articles is released to a foreign national. (“Use” in this context can have different meanings, dependent upon the classification of the item or technology involved. When instruction on use is based on a publicly available manual, the instruction is considered publicly available and not subject to the EAR.)

Educational Information Exclusion

One of the most important exclusions from the EAR and ITAR that applies to universities is the exclusion for educational information. Under the EAR, information and software taught in course catalog courses and teaching laboratories associated with these course catalog courses are not export controlled. (Certain encryption does not meet this exclusion.) See 15 CFR 734.3(b)(3).

Under the ITAR, information or software concerning general scientific, mathematical or engineering principles commonly taught in universities or information in the public domain are not subject to export controls. See 22 CFR 120.10–11.

Publicly Available Information / Public Domain

All information that is publicly known is also not subject to export controls (again with the exception of certain encryption software). Under the ITAR, information that is published and that is generally accessible or available to the public is said to be in the

“public domain” and not export controlled. Examples include: (a) sales at newsstands and bookstores; (b) subscriptions that are available without restriction to any individual who desires to obtain or purchase the published information; (c) second class mailing privileges granted by the U.S. government; (d) libraries open to the public or from which the public can obtain documents; (e) published patent applications and issued patents; (f) unlimited distribution at a conference, meeting, seminar, trade show, or exhibition, generally accessible to the public, in the United States; (g) any public release after approval by the cognizant U.S. government agency; and (h) fundamental research in science and engineering at accredited institutions of higher learning in the U.S. where the resulting information is ordinarily published and shared broadly in the scientific community. See 22 CFR 120.11.

The EAR uses the term “publicly available” rather than “public domain.” Under the EAR, information is publicly available when it becomes generally accessible to the public. See 15 CFR 734.7.

Physical Exports

If a physical export is necessary, a sequential analysis should begin with jurisdiction determination and then the classification process. The researcher is typically the best person to assist with the determination of the classification of the item, such as the [USML Category](#) or the [CCL ECCN](#).

If an item is determined to be ITAR controlled, an export license is likely needed to any destination. If an item is determined to be EAR controlled, it must be determined whether an export license is required, depending upon the destination, end use, and end user. The exporter is required to know the customer and evaluate how the export will be used. The lists of barred or prohibited countries, persons and entities must be checked in the vetting process. For shipment of items subject to the EAR, you must check whether General Prohibitions 4-10 apply. EAR Part 736. If any 'red flags' are indicated, the concerns must be addressed satisfactorily or the shipment should be aborted. In some instances, license exceptions may apply. Contact the Export Control Compliance Manager to evaluate whether any license exceptions may apply. The OIC can help make these determinations. **All exports** from UMass Lowell require the submission of a completed “Request to Ship Equipment or Materials Out of the U.S.” or “Request to Ship Documents/Promotional Items” form to OIC **prior to shipment**. Certain exports may also require submitting an End User Certification Form to OIC that has been completed by the end user, and engaging a reputable and approved freight forwarder to complete the shipment and file all appropriate documentation. For all physical exports reviewed by OIC, end users must be identified and screened to evaluate whether a license is required or any exceptions may apply.

For exports requiring a license and all shipments of goods having a value greater than \$2500, an AES filing with the U.S. Census Bureau must be filed. The filing must indicate the applicable ECCN and the license number or license exception that applies. Contact the OIC for assistance with this process and allow adequate time (sometimes months) to receive a response from the appropriate government agency, if needed. Be aware of red flags for every proposed transaction.

Deemed Exports

Red Flag Indicators - Things to Look for in Export Transactions

Use this as a check list to discover possible violations of the Export Administration Regulations. You may also wish to visit our page that provides "[Know Your Customer Guidance](#)."

- The customer or its address is similar to one of the parties found on the Commerce Department's [BIS] list of denied persons.
- The customer or purchasing agent is reluctant to offer information about the end-use of the item.
- The product's capabilities do not fit the buyer's line of business, such as an order for sophisticated computers for a small bakery.
- The item ordered is incompatible with the technical level of the country to which it is being shipped, such as semiconductor manufacturing equipment being shipped to a country that has no electronics industry.
- The customer is willing to pay cash for a very expensive item when the terms of sale would normally call for financing.
- The customer has little or no business background.
- The customer is unfamiliar with the product's performance characteristics but still wants the product.
- Routine installation, training, or maintenance services are declined by the customer.
- Delivery dates are vague, or deliveries are planned for out of the way destinations.
- A freight forwarding firm is listed as the product's final destination.
- The shipping route is abnormal for the product and destination.
- Packaging is inconsistent with the stated method of shipment or destination.
- When questioned, the buyer is evasive and especially unclear about whether the purchased product is for domestic use, for export, or for re-export.

If you have reason to believe a violation is taking place or has occurred, contact the UMass Lowell Office of Institutional Compliance at 978-934-3452 or 3207.

While exports are commonly associated with the physical shipment of materials across a U.S. border, export controls are much broader. They also include the transfer of technology or software, technical data, or performance of defense services to foreign nationals even when the transfer takes place within the U.S. This transfer is "deemed" to be an export. The issue of deemed exports is particularly relevant for university environments where students and faculty from every corner of the globe engage in teaching and research activities together. In many instances, the requirements of the export control laws can be appropriately satisfied through reliance on available exclusions from export controls, such as exclusions for educational information, and exclusions for information that is publicly available or in the public domain, including the fundamental research exclusion. UMass Lowell is committed to ensuring these exclusions are relied upon and satisfied. For example, a "deemed export" under the ITAR involves the export to a foreign person of technical data, in other words information or software, required for the development, production or use of defense articles included in the USML. Technical data does not include information or software concerning general scientific, mathematical, or engineering principles commonly taught in universities, or information in the public domain, or general system descriptions, or basic marketing information on function or purpose. A "deemed export" under ITAR also includes performing a defense service on behalf of a foreign person.

A deemed export under the EAR involves the export to a foreign national of technology or software required for the development, production or use of a good. Deemed exports could occur through such means as a demonstration, oral briefing, or plant visit, as well as the electronic transmission of non-public information or software. Specific reference must be made

to the relevant ECCN because what constitutes “technology” can vary. For example, in the case of select agents, “technology” includes information about disposal of the materials under ECCN 1E351. Technology and software that are not subject to the EAR would be excluded from these export regulations, such as publicly available technology.

Supercomputers

A common deemed export question relates to access by persons in the UMass Lowell community to supercomputers (designated by their adjusted peak performance or APP under Category 4 of the CCL). This is an example where mere access to or operation of a supercomputer does not constitute a deemed export. Faculty and technicians involved in the procurement, development or operation of such supercomputers are responsible for their proper management and supervision and should know what restrictions apply.

Encryption Software and Technology

Faculty and students who work with encryption software and technology have a particularly complex compliance framework to maneuver within. As referenced above, certain encryption software does not satisfy the exclusions on which universities ordinarily rely, including the educational information exclusion or the publicly available or public domain exclusion. However, there are recognized Department of Commerce clarifications and specific license exceptions that do apply.

As part of the Federal government policy efforts to promote data security through encryption protections imbedded in mass market software products, it is permissible, while in the U.S. for non-U.S. persons to use any publicly available (in other words, sold on the retail market) software containing encryption source code or object code. The Department of Commerce makes this clear in its policy statements. See, for example, the Department of Commerce's BIS encryption export policy located at <http://www.bis.doc.gov/index.php/policy-guidance/encryption> and the BIS guidance in Question 17 in the Deemed Export section of the following FAQs: <http://www.bis.doc.gov/index.php/policy-guidance/deemed-exports/deemed-exports-faqs>

Also, under License Exception ENC, non-U.S. persons who are employees, contractors or interns employed at UMass Lowell facilities can use encryption software (covered by ECCNs 5D002 and 5D992) with no license or prior government review required. This includes work developing or producing new products. 15 CFR 740.17(a)(2). In addition, special exemptions apply to certain kinds of encrypted medical end-use software and to temporary physical exports of tools of trade.

Special exemptions apply to teaching encryption techniques. Encryption technology that is publicly available (in other words, published in books or sold on the retail market), including technology covered by ECCNs 5E002 and 5E992, is not subject to the EAR. Therefore, publicly known encryption techniques and schemes may be shared and taught to non-U.S. persons within the U.S. (sharing of encryption software is a separate analysis). However, providing encryption technology controlled under 5E002 to students may require a license if it is provided with the specific intent to aid in the development of commodities or software controlled under 5A002 or 5D002. See License Requirement Note to ECCN 5E002.

Restricted Party Screening Lists

Various U.S. Government agencies maintain a number of lists of individuals or entities barred or otherwise restricted from entering into certain types of export, trade and financial transactions with U.S. persons. All activities must be screened using these lists to ensure that UMass Lowell does not engage in a transaction with a barred entity or person. UMass Lowell subscribes to specific software that vets all transactions against the list and maintains a record of the review. The [Consolidated Screening List](#) is also available in a downloadable file that consolidates export screening lists of the Departments of Commerce, State and the Treasury (described below) into one spreadsheet as an aide to industry in conducting electronic screens of potential parties to regulated transactions.

EAR Denied Persons List. These are individuals and entities that have had their export privileges revoked or suspended by BIS.

EAR Entity List. The Entity List identifies foreign parties that are prohibited from receiving some or all items subject to the EAR unless the exporter secures a license. These are often entities identified as being involved in proliferation of missile technology, weapons of mass destruction, and related technologies.

Specially Designated Nationals and Blocked Persons List (SDN List).

Maintained by OFAC, this is a list of barred terrorists, drug traffickers, and persons and entities associated with embargoed regimes. Generally, all transactions with such persons are barred.

Arms Export Control Act (AECA) List of Debarred Parties The Department of State bars certain persons and entities from engaging in the export or re-export of items subject to the USML.

Unverified List. These are foreign persons and entities for which Department of Commerce has been unable to verify the nature of their operations. While transactions with these entities are not barred, special due diligence is required, as there are additional licensing, documentation, and reporting requirements.

Nonproliferation Sanctions maintained by the Department of State.

Foreign Sanctions Evaders List: Foreign individuals and entities determined to have violated, attempted to violate, conspired to violate, or caused a violation of U.S. sanctions on Syria or Iran, as well as foreign persons who have facilitated deceptive transactions for or on behalf of persons subject to U.S. Sanctions. Transactions by U.S. persons or within the United States involving Foreign Sanctions Evaders (FSEs) are prohibited.

Sectoral Sanctions Identifications (SSI) List: Individuals operating in sectors of the Russian economy with whom U.S. persons are prohibited from transacting in, providing financing for, or dealing in debt with a maturity of longer than 90 days.

Non-SDN Palestinian Legislative Council (PLC) List: Individuals of the PLC who were elected on the party slate of Hamas, or any other Foreign Terrorist Organization (FTO), Specially Designed Terrorist (SDT), or Specially Designated Global Terrorist (SDGT).

Supplier Classification of Items

When, in the course of research activities, UMass Lowell receives materials from a sponsor and the PI cannot determine whether export controls apply, the OIC will contact the sponsor for export jurisdiction and classification information. If necessary, the sponsoring company is asked to complete a Supplier Classification Request Form to identify the types of materials involved and whether anything is export controlled.

Antiboycott Violations

U.S. persons are prohibited by the antiboycott laws of the United States from participating in unsanctioned foreign boycotts. While infrequent, this problem can arise in the process of contracting with foreign entities or countries. To ensure compliance, proposed contracts for sale, purchase or transfer of goods or services between UMass Lowell and any foreign country or its foreign nationals are reviewed for unsanctioned foreign boycott provisions. Contracts (including any oral requests) having those provisions are not accepted by UMass Lowell and are referred to OIC for review and any required reporting under Part 760 of the EAR. Examples include agreements to discriminate based on national origin or nationality and agreements to refuse to do business with Israel or Israeli blacklisted companies.

Immigration Sponsorship

For Principal Investigators who want to issue a sponsor/offer letter on behalf of a foreign person, the ISSO, OIC, and HR must approve any letters before they are sent. The letter should be accompanied by the ISSO's Sponsor Forms if UMass Lowell will be sponsoring the visitor's visa. The sponsor/offer letter should include a full description of the activities to be performed by the person while at UMass Lowell.

International Travel

When traveling abroad, all UMass Lowell faculty, staff and students should be familiar with export control regulations. UMass Lowell personnel need to make sure that any information discussed or items taken out of the U.S. are either not controlled, or if controlled, the proper licenses are in place. UMass Lowell personnel, as individuals, and UMass Lowell as an institution can be held liable for improperly transferring controlled technology. Thus, it is important to review and understand the federal requirements. Prior to discussing technology or making a presentation when traveling, verify that the technology, information, and/or commodity qualifies for an exclusion or exception. *Please note: exclusions do not apply when controlled equipment, material, or biological samples are hand-carried or shipped abroad. Items such as biological samples should never be transferred without prior authorization.*

Be aware that more than one license may be required for some travel. For example, travel to an OFAC embargoed country could require a license issued by the Treasury Department. Check with OIC to verify whether the country you intend to visit is on an OFAC list. An EAR license may be required as well depending on whether an export of controlled technology (information) is anticipated.

Typical exclusions that are relevant for personnel when traveling include:

- Published Information and Software – information that is generally accessible to the public through publication in books or periodicals, or information presented in the United States at a conference, meeting, seminar, trade show or other open gathering (where members of the general public are eligible to attend and attendees are permitted to take notes) is considered to be in the public domain. Software available from a web site and accessible to the public for free and without restriction is also considered to be publicly available. (Again, certain encryption software does not meet this exclusion.)
- Educational Information – Course material taught in U.S. universities in course catalog classes and information that is in the public domain fall within the educational information exception. (Again, certain encryption software does not meet this exclusion.)

Guidance for international travel is posted on the U.S. State Department website at <https://travel.state.gov/content/passports/en/alertswarnings.html>.

All travel for UMass Lowell-related business or activities requires submission and processing of the travel authorization via the Terra Dotta system prior to travel. The submission should be made for approval at least 5 business days before travel begins. **All foreign travel** requires prior authorization by the respective Dean and OIC. Completion of the submission in advance of foreign travel is the only means for qualifying for international travel insurance offered by UMass Lowell at no cost to the traveler as well to be eligible for travel expense reimbursement. Links to the Terra Dotta system and UML Travel Expense guidelines are available on the UML Travel Office's [web site](#). The Procurement Office retains travel expense records and these are used for OIC audits to ensure all trips were properly vetted and approved.

OFAC publishes travel guidelines for securing licenses for travel to embargoed countries. A useful guide for understanding the OFAC sanctions against Cuba, including information on travel to Cuba, is located [here](#). For information on all of OFAC's sanctions programs go [here](#).

For foreign travel with UMass Lowell-issued laptops or other electronic devices, the UMass Lowell faculty or staff member should submit a completed [Request for Annual Certification for Travel with Electronic Devices](#) form to the OIC. The form has checkboxes for the UMass Lowell faculty or staff member to verify that no controlled or sensitive information is contained on the laptop. The OIC will issue a letter stating the approximate value of the computer or item and that no controlled or sensitive information is on it to provide to any customs agent should the UMass Lowell faculty or staff member be questioned during international travel. The letter is good for one year and should be updated if a new computer is used for travel.

Special care should be taken of computers that contain non-commercial, special purpose or certain encryption software. These items could be subject to seizure or customs duties and could pose a threat if stolen. See discussion above under "Encryption Technology." If you need to travel with such items, an export review should be performed and if necessary, a license obtained prior to travel, and it should be completed well ahead of expected travel dates. Before

initiating travel, the following questions should be considered to evaluate whether export regulations apply:

- 1) Do you plan to take any information or technology that is controlled?
- 2) Do you plan to travel to an embargoed destination?
- 3) Are you taking any biological materials? Identify the material(s).
- 4) Are you taking any equipment or other materials with you?

If the answer to any of these questions is 'yes', contact the OIC for assistance.

International Gift Acceptance Policy

As an international organization, the University of Massachusetts Lowell is able to accept, or consider for acceptance, contributions of cash and property from donors globally. Regardless of the donor's country of residence, acceptance of a gift of any kind must comply with all policies and procedures established by the Trustees of the University of Massachusetts and the UMass Lowell Office of Advancement. (These policies and procedures are outlined in the UMass Lowell Gift Acceptance Policy.) In addition, supplemental export control procedures were instituted in April 2018 by the UMass General Counsel's office detailing detailed screening requirements and special provisions for certain in-kind donations. A gift of any kind must comply with U.S. laws and the laws of the particular country of origin. Any transfer of assets to UMass Lowell or to the UMass Foundation facilitated through the UMass Lowell Advancement Office cannot violate any U.S. or local laws. Sources of funds and donor intent for any prospective gift must be clearly understood.

Upon notification of receipt of any donation from a foreign donor, the UMass Lowell Advancement Office will provide OIC a detailed description of the donation with the donor's name, physical address, and country from which the donation will be provided. OIC will vet the transaction using Visual Compliance to make sure UMass Lowell is in compliance with all U.S. sanctions, as well as export compliance laws and regulations. OIC will then send the results of the vetting information back to the Advancement Office with the Export Compliance Clearance Form. No foreign donations are to be accepted until OIC has cleared the donation. Additional screening and approval requests will be conducted for "Tiers 2 & 3" level donations, as described in the April 2018 General Counsel's policy identified above, and for all in-kind donations of any equipment, materials, software, or intellectual property which could possibly fall on a U.S. export control list (e.g., the USML or CCL).

Technology Control Plans

The purpose of a Technology Control Plan (TCP) is to outline procedures used by UMass Lowell for the protection of information and material identified under applicable federal directives governing the export of critical technology that may be received or developed in the course of performance of activities that are subject to export controls. Technology Control Plans must be developed and submitted for review and approval for any research that involves export controlled items, technology or data. The purpose is to identify authorized personnel and develop a physical and IT security plan to protect and control research information from access by unauthorized persons. Once the TCP is in effect, no personnel can be added to that project or facility without the prior approval of the OIC. The

development of the TCP is a mandatory precursor to an application for a deemed export license or technical assistance agreement.

Screening the Customer and Restricted/Prohibited Exports and Transfers

As an educational and research institution, there are numerous types of customers that may require screening. For example, sponsors, vendors, visitors and end users are screened depending on the nature of the activity. Visual Compliance is the software used for screening against all lists of proscribed countries and entities.

Before new sponsors are accepted into the sponsor PeopleSoft database, ORA personnel forward sponsor information to OIC for screening against the lists of proscribed countries and ineligible parties using Visual Compliance software. Visual Compliance also maintains the list of all parties screened, and sends notification to UMass Lowell if a party previously screened is later added to a restricted list. Vendors are screened by the Purchasing Department using ATTUS WatchDOG Pro to screen all applicable lists in order to approve the vendor before being entered by the Purchasing Department into the PeopleSoft system, which allows purchases to be made. Vendors are screened again at the time any payment is about to be made by the University of Massachusetts Treasurer's Office.

International Students, Faculty, and Visitors

International students, faculty and visitors whose visas are sponsored by UMass Lowell must report to the International Students and Scholars Office (ISSO) upon arrival at UMass Lowell. ISSO requires that the student present original visa and passport documents and makes copies for the student's record and processes the visitor through the Department of Homeland Security's SEVIS database. UMass Lowell assumes that students holding valid U.S. visas have been cleared by the U.S. Citizenship and Immigration Services (USCIS).

International visitors may come to campus for a variety of other reasons, including to tour various research laboratories or other public areas. These visits should also be documented and reviewed by OIC. Faculty members are informed in training sessions to contact OIC to coordinate all visits from international persons. The information provided for each visit should include the date(s) of the visit, purpose, areas to be visited, company or university affiliation, and names of each visitor in the group. OIC then uses the screening software to vet the company, university and each visitor. Depending on the nature of the visit and the risk as evaluated by OIC, federal agency representatives may also be contacted to assist in the vetting and review process.

For groups that might be considered high risk (country of origin, specific research laboratory to visit, interest in what could be considered a 'sensitive topic', or PI with a controlled project), OIC will need as much information as possible to do a complete review before the visit will be approved.

Equipment Purchases and Tracking for Large Equipment

As part of the procurement process, the Purchasing Department asks the vendor to provide the ECCN or USML category, if known, for equipment purchases. Purchasing keeps all records through the BuyWays program and forwards any category and jurisdiction information to OIC. This information is reviewed, recorded, and tracked by OIC so there is a record of what is on

campus. Depending on the material or equipment involved, OIC contacts the PI or manager to who procured the item(s) to ensure it is secured as appropriate if it is ITAR controlled or one of the new categories where the technology is more tightly controlled under the EAR (including the implementation of an Access Control Plan where appropriate).

LICENSING INFORMATION

No matter how “benign” an item may appear, it still may require a license to export or release to foreign nationals. License requirements apply particularly to items controlled by multilateral export control regimes. In addition, some destinations and persons (individuals or groups) are subject to comprehensive export controls, including controls on all manner of consumer products.

A license may also be needed to "re-export" an item that was produced or originated in the United States. A "re-export" is the shipment or transmission of an item from one foreign country to another foreign country. A re-export also occurs when there is "release" of technology or software (source code) in one foreign country to a national of another foreign country.

The Commerce Department is responsible for licensing dual use items and “low-level” military items. The regulations on the export of goods and related technology are identified on the Commodity Control List (CCL), Title 15 CFR 774, Supplement 1. (The State Department is responsible for licensing most items with military applications.)

The following general questions can be used to help determine whether an activity may require a license:

- 1) Is the person a U.S. Citizen or permanent resident (issued a green card)?
- 2) Is the information already published (for example on the Internet or in public libraries)?
- 3) Is it educational information covered in a course catalog course?
- 4) Is the technology disclosed in a published patent application or an issued patent?
- 5) Is the research considered fundamental research that will be published?
- 6) What is the jurisdiction and classification of the product – is it EAR 99, or something else?
- 7) Does a license exclusion or exemption apply?
- 8) If none of the above apply, a license may be required.

If an activity is controlled under the export regulations, then a license or other approval is needed from the respective oversight agency unless an exemption or exception applies.

Examples of situations where a license may be required include:

- research that involves defense, military, weapons, or space technologies
- export of a commodity or good outside of the U.S.
- attending a conference where registration is limited to U.S. citizens
- attending a conference outside of the United States
- activities where export control exceptions do not apply
- transfer of technical data about a controlled technology to a foreign national in or outside of the U.S.
- providing anything of value to someone from a sanctioned country, on the entity list, denied persons list, debarred (or excluded) parties list or any other restricted list.

When exclusions or exceptions do **not** apply (or if the transaction involves dealings with a sanctioned entity or country), then a license must be obtained for any deemed export, export, or re-export **prior** to the transfer of any information.

The following information is then needed to determine whether the U.S. origin product requires a license:

1. Classification. Items controlled on the U.S. Munitions List, and their related technology, will require an export license for almost all destinations.

Certain items, notably those controlled by multilateral export control regimes, are on the Commerce Control List (CCL) (part 774 of the EAR) and are included under a specific Export Control Classification Number (ECCN). The ECCN in the CCL will also tell you the reason(s) for control, which can then be used to determine to which destinations an export license would be required (see below). An item can be 'self-classified' with justification or BIS can also assist with classification when necessary. Contact the Export Control Compliance Manager for assistance. Items not listed on the CCL or controlled by another agency are designated as EAR99 items and generally can be exported without a license, unless the export is to an embargoed country, or to a prohibited person or end-use.

2. The ultimate destination of the item. The reason(s) for control listed in ECCNs on the CCL (part 774 of the EAR) needs to be matched with the country of ultimate destination in the Country Chart (part 738 of the EAR). The reason(s) for control, when used in conjunction with the Country Chart, will help to determine if a license is required to the ultimate destination. If it is determined that your export transaction requires a license, review the EAR to determine if any License Exceptions are available (part 740 of the EAR).

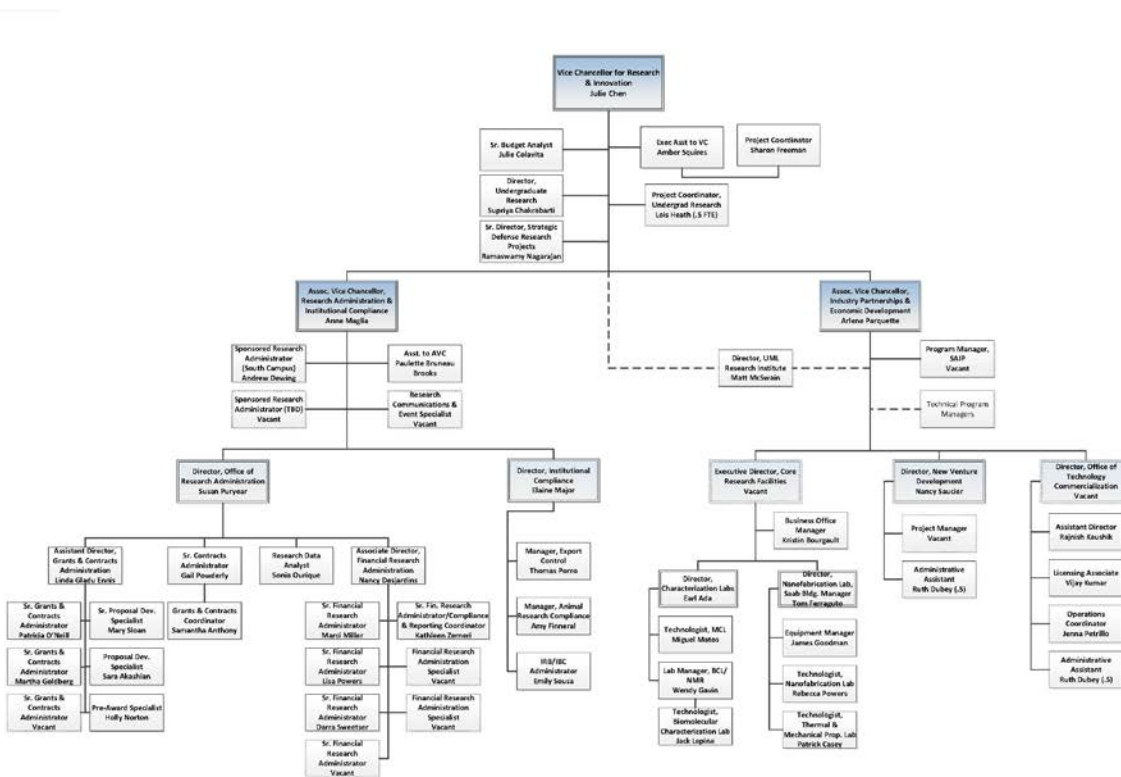
3. The end-user and end-use for the item. Even if determined that a license is not required based on the ultimate destination (or a license is required but a License Exception would generally apply), a license may be required because of the specific end-use or end-user. These are referred to under the regulations as the “General Prohibitions” and are found at Part 736 of the EAR. There are certain special restrictions that apply to persons (or entities) identified in the EAR, as well as to persons who are involved in nuclear weapons proliferation activities or chemical or biological weapons activities. In most instances, a license is required to persons identified in part 744 of the EAR for the export or re-export of all items subject to the EAR (i.e., all items on the CCL and all items classified as EAR99). There are certain end-uses that are prohibited. An end-user certification form may need to be completed by the end user to assist in the determination process.

The Director of the Office of Institutional Compliance is the UMass Lowell person approved to authorize jurisdiction and classification requests as well as license applications to the Department of Commerce and Department of State. The OIC Export Control Compliance Manager or OIC Director will consult with Environmental Health and Safety with respect to any TCPs or license applications involving controlled chemicals or biological materials.

ROLES AND RESPONSIBILITIES

In a University setting, it is necessary to coordinate export controls between departments as well as between academic and administrative sides of the institution so the program may be integrated fully across all levels of the institution. The processes should be clearly outlined so each department understands their responsibilities, information is forwarded to the appropriate party, and the necessary checks are completed and supporting documentation is on file. The UMass Lowell reporting structure is provided below for those areas involved in export control compliance and for scenarios expected to occur at UMass Lowell. Specific procedures for each department are outlined in a separate document titled the “Export Control Compliance Program Standard Operating Procedures.”

UMass Lowell Export Control Compliance Organizational Structure



Institutional Commitment to Compliance Oversight

Compliance is a matter for top management attention and needs adequate resources for full implementation. The Export Control Compliance program is supported by the senior administration at UMass Lowell. The Vice Chancellor for Research and Innovation, the Provost, and the Senior Vice Chancellor for Finance, Operations, and Strategic Planning review and endorse the Export Compliance Guidelines and Standard Operating Procedures as updated annually. The purpose of endorsement by the senior administration is to also ensure that UMass Lowell has the resources in place to assure compliance with export control and trade sanctions laws and regulations. These senior leaders are knowledgeable about the EAR, Arms

Export Control Act (AECA), ITAR and OFAC laws and regulations. As the leaders of each of their respective offices and functions, they oversee the implementation of the export control compliance program, these guidelines and the operating procedures in their respective departments and offices. The senior administrators are also responsible for investigating and notifying the appropriate government agency of suspected or known violations.

An Ad Hoc Compliance Oversight Committee is charged with evaluation of any relevant issues or suspected violations and is appointed ad hoc and convened as necessary for a briefing on the relevant issue(s) and provide guidance to OIC to help address it. Appointees are assigned based on the issue and the Colleges, Departments, or personnel involved.

The Vice Chancellor for Research and Innovation (VCRI), along with the Associate Vice Chancellor for Research Administration and Institutional Compliance, provide direct oversight to the Offices of Institutional Compliance (OIC) and Research Administration (ORA). This allows top management support from the Chancellor's office to ensure compliance. Announcements are issued periodically to the University community to inform them of changes and provide opportunities for training. The VCRI is designated as an empowered official for export license applications and may also approve acceptance of some projects that involve export restrictions.

The Office of Institutional Compliance (OIC) is the central office with primary responsibility for compliance functions, including export control compliance, and is responsible for assisting with developing and implementing the export compliance program. It is led by the Director of OIC, who oversees the Export Control Compliance Manager. The Director and Export Control Compliance Manager work with the faculty, administrative staff, and students to help them comply with export control regulations via education, training, and consultation. They also communicate changes in regulations, maintain relevant records for all export control training and export activities, and provide support for license applications. The Director of OIC and Export Control Compliance Manager are empowered officials for export license applications. They are also responsible for overseeing the annual review and update of the UMass Lowell Export Control Guidelines and the Export Control Compliance Program Standard Operating Procedures (SOPs), conducting periodic audits, identifying new activities that require export compliance oversight, and assisting with determination of ECCNs.

The OIC assists the ORA with the vetting of proposed projects, including sponsored research agreements and research services agreements, in consultation with the PI and proposed sponsors. The OIC is responsible for screening proposed activities with potentially proscribed countries or ineligible parties, monitoring compliance with TCPs, and screening international travel and visits by foreign nationals. The OIC maintains copies of all export control documents including license applications, policies, forms and guidelines, memoranda, notes, screens, correspondence, contracts, invoices and other financial records related to export controls, shipping documents, and records submitted to OIC for vetting and approval.

Office of Research Administration (ORA) is responsible for all extramural proposal submissions, accepts and administers grant awards, and negotiates contracts and other

research-related agreements on behalf of the University. ORA staff also report to the Associate Vice Chancellor for Research Administration and Institutional Compliance and the Vice Chancellor for Research and Innovation. It is led by the Director of ORA. The ORA reviews all research contracts for terms or provisions that might restrict access to or publication of research and technical data, set limits on personnel, or otherwise render inapplicable the exclusion for fundamental research or publicly available information. For the same reason, ORA also examines the nature of the work to determine whether it relies on use of third-party trade secrets or proprietary information that would prevent publication of the research results. Further, UMass Lowell policy on the free dissemination of research results prohibits the acceptance of contracts or grants with publication or dissemination restrictions without approval of the Export Control Compliance Manager and Director of the OIC. The Associate Vice Chancellor for Industry Partnerships and Economic Development is also an authorized signatory and follows the same process for signing off on any grants and contracts.

Any proposed contract, grant, or award found by ORA to contain these restrictions which ORA cannot negotiate out is referred to OIC for analysis and OIC will contact the sponsor to attempt to negotiate the terms and to learn about the nature of the project. PIs are requested to complete an export control review form or checklist to assist OIC in making an export control assessment. If the restrictions cannot be negotiated out, it is the responsibility of the Export Control Compliance Manager and Director of OIC to determine whether to accept the award, in consultation with the PI.

All proposed research projects with foreign sponsors or which otherwise require physical exports are referred to OIC for analysis, review and approval, as well as for end user screens and licenses (if needed). Proposed contracts between UMass Lowell and any foreign country or its foreign nationals are reviewed for unsanctioned foreign boycott provisions. Contracts (including any oral requests) having those provisions are not accepted by ORA and are referred to OIC for review and any required reporting under Part 760 of the EAR. Examples include agreements to discriminate based on national origin or nationality and agreements to refuse to do business with Israel or Israeli blacklisted companies. In addition, projects with required deliverables that are foreign funded are also reviewed and analyzed by OIC to ensure no license is required.

Research services agreements in many instances do not meet the fundamental research exclusion because they are typically specific projects conducted for companies with no intent to publish the results. Many of these projects, however, rely on the use of publicly available techniques and processes that are not export controlled. Research service agreements are submitted to ORA with a statement of work and a purchase order. ORA sends the project to OIC for review, which includes having the researcher involved provide additional information about the nature and scope of the proposed work when needed.

Before new sponsors are accepted into the ORA database, ORA personnel forward sponsor information to OIC for screening with Visual Compliance against the lists of proscribed countries and ineligible parties

Emergency and Environmental Management, Environmental Health and Safety (EHS) Office is under the direction of the Senior Vice Chancellor for Finance, Operations, and Strategic

Planning. EHS has a comprehensive laboratory safety and compliance program. EHS maintains a database of faculty and staff that work with biological agents, chemicals and other hazardous materials. EHS conducts periodic training of persons with access to laboratories about the proper handling, disposal, security and shipping of these materials, including export control awareness training. As part of the controls in place to oversee purchases, no persons are allowed to use UMass Lowell ProCards to purchase chemicals, and all chemical purchases and disposal are subject to EHS review and approval. Chemicals and biological agents are subject to many legal requirements that involve additional compliance oversight. In fact, some of these materials are classified as dual use under the CCL. As a result, EHS shipping training and other training sessions include discussion of export controls. EHS is available to assist members of the UMass Lowell community to comply with these laws and regulations.

Institutional Biosafety Committee (IBC) is a review body that oversees activities involving laboratory use of potentially hazardous biological agents. UMass Lowell is committed to ensuring the safe handling, storage and disposal of potentially harmful biohazardous materials for research or instructional projects. The Director of OIC is responsible for oversight of various compliance committees and is an active member of the committee to help coordinate the use of materials approved by the IBC with export compliance requirements. Some of these materials are classified as dual use under the CCL and EHS training includes information about export controls.

Human Resources and Equal Opportunity & Outreach is under the direction of the Senior Vice Chancellor for Finance, Operations, and Strategic Planning. Human Resources and Equal Opportunity & Outreach periodically notifies the OIC of all new hires by department. Human Resources and Equal Opportunity & Outreach is authorized to work with OIC to provide citizenship and nationality information to the OIC when needed to authorize personnel to work on projects. OIC is authorized to have access to HR personnel files to support applications for security clearances. HR periodically provides records to OIC for audit purposes and to ensure all foreign hires have been properly vetted.

The International Students and Scholars Office (ISSO) is under the direction of the Vice Provost for Innovation and Workforce Development and is responsible for advising on compliance with immigration regulations. ISSO is also responsible for processing and issuing visas for all foreign persons (including students) for UMass Lowell. Before processing visa applications for international faculty, staff, and research scholars, ISSO forwards the documentation to OIC and HR for review and approval. Once OIC reviews and approves the submission, OIC sends the export clearance approval to the ISSO.

The Director of Innovation & Workforce Development is under the direction of the Vice Provost for Innovation and Workforce Development and helps to coordinate speakers and other temporary visits as part of UMass Lowell's international relations activities (short of activities requiring a sponsor letter or visa application). To bring visitors to UMass Lowell, prior to their arrival the following information will be provided to the OIC for vetting and approval:

- legal name (as shown on legal credentials, e.g., passport, license, diploma)
- country
- date of the visit and location (name of PI, department or center)

- purpose of the visit with a complete description of activities to be conducted at UMass Lowell

All visitors who may receive payment for speaker fees or any services must be screened by Accounts Payable before any payment can be authorized.

Purchasing/Accounts Payable is under the direction of the Senior Vice Chancellor for Finance, Operations, and Strategic Planning and is responsible for ensuring that vendors are screened and approved before being entered into the system that allows purchases to be made. The Purchasing Department also secures letters of engagement for all freight forwarders and tracks the export classifications of equipment purchases, when provided. They consult with OIC if there are any unusual export control provisions or other “red flags” in any equipment purchase or lease agreement.

Travel is under the direction of the Senior Vice Chancellor for Finance, Operations, and Strategic Planning, whose office handles travel authorizations for all domestic and international travel, and is responsible for ensuring compliance for all international travel. OIC reviews, vets, and approves all international travel, as do the Department Chair (or Supervisor) and Dean (or Department Head). Records are available to OIC to audit and ensure all travel is being vetted appropriately.

Shipping & Receiving is under the direction of the Senior Vice Chancellor for Finance, Operations, and Strategic Planning. All international shipments must be vetted and approved by OIC prior to leaving UMass Lowell. An Export Compliance Clearance Form will be sent to document the specifics about the transaction if OIC approves the shipment. For any items that require an Automated Export System (AES) Direct filing, an approved freight forwarder should be used to facilitate the export and meet the regulatory requirements. Records are retained for periodic audits by OIC to ensure all shipments are appropriately vetted and approved.

Office of Information Technology (OIT) is under the direction of the Senior Vice Chancellor for Finance, Operations, and Strategic Planning and provides information services and technology support for all UMass Lowell employees and students. OIT provides oversight for Enterprise Information Systems and Delivery, Information Security, Network and Telecommunication Services, and Instructional Technology. Additionally, it is responsible for implementing and maintaining an effective information technology security plan for UMass Lowell based upon ISO 27002 standards. Information Security consults with the OIC to develop and implement Technology Control Plans with a focus on data access and controls. To prevent deemed exports, unless explicit access control policies have been implemented to safeguard university data, OIT shall not employ foreign persons or foreign nationals in any capacity or allow such persons to work as a volunteer performing IT-related tasks.

Campus Police are consulted by the Compliance Oversight Committee and, as needed, are engaged in any investigation the Compliance Oversight Committee may undertake regarding a possible violation or suspected security breach or theft.

Office of Technology Commercialization (OTC) is under the direction of the Associate Vice Chancellor for Industry Partnerships & Economic Development, and is responsible for

assisting in review of invention disclosures and determining the applicability of its transfer to commercial applications, as well as reviewing, under protection of non-disclosure agreements, third party proprietary technologies. To prevent deemed exports, no foreign persons or foreign nationals shall be employed or work as students or interns in OTC. From time to time, OTC receives a request to handle a materials transfer agreement for receipt or transfer of materials to a foreign person, as well as confidentiality agreements with non-standard export control provisions, with foreign entities or nationals, or having other “red flags”. OTC refers these requests to the OIC for export control review and approval. Other activities that can involve OIC review include vetting and review of new business venture development partners and confidentiality, nondisclosure and material transfer agreements. Faculty who are involved in industry activities that are covered under a Nondisclosure Agreement (NDA) acknowledge that there are restrictions under the NDA and agree to comply with such requirements and notify any students who may also be subject to the NDA terms. OTC tracks the NDAs and acknowledgements.

Deans, Center Directors, and Department Heads provide oversight of their respective departments, research centers, and faculty PIs to ensure compliance. They assist the OIC and the VCRI in implementing the UMass Lowell export compliance program. They play a critical role in supporting, facilitating, and coordinating faculty and staff training. They play a critical role in assessing the appropriateness of sponsoring a foreign visiting scholar or other foreign visitor in their departments and centers, and approving foreign travel requests.

Principal Investigators have the best understanding of his or her research and play the primary role in developing and directing all research projects. Therefore, PIs have the best information as to whether the particular technology, data, or information involved in that research is or may be covered by export control regulations. PIs also make decisions regarding equipment or technology and to whom it is transferred. Because there is a high penalty for non-compliance with export control regulations, it is critical for PIs to understand these regulations and work with the administrative staff in the OIC and ORA to evaluate technical aspects of export controlled items, technology, or data.

The PI is responsible for the following:

- Reviewing UMass Lowell information on export regulations provided on the OIC website.
- Participating in training and identifying staff and students to attend training.
- Determining whether there may be any export control issues to address before preparing a proposal or beginning any research.
- Communicating with OIC and ORA if any export control issues are identified or if any questions arise about export regulations.
- Cooperating with OIC in developing Technology Control Plans (TCPs) and applying for licenses, and following the TCP to ensure compliance with all applicable restrictions.
- Adhering strictly to any applicable restrictions and cooperating fully with UMass Lowell OIC 's efforts to monitor compliance when export control regulations apply.
- Notifying the OIC as soon as any change is necessary for work on a controlled project, such as a change in the scope of work or the addition of new staff.

- When conducting outside consulting activities, export control compliance is the responsibility of the PI.
- Acknowledging terms of NDAs they may do work under as well as notify their students who are involved in the activity of the requirements of the NDA.

Administrative Assistants provide assistance to many departments and faculty throughout UMass Lowell. There is an emphasis on training of Administrative Assistants due to the importance of their role in assisting faculty to meet compliance procedures. They are typically involved with activities such as international travel authorization submissions, shipments, purchasing, hiring documentation, and maintaining ProCard logs.

RECORD KEEPING

UMass Lowell must comply with the various record keeping requirements of the EAR and ITAR and related laws and regulations. Record keeping to meet federal regulatory requirements is generally (and preferably) done by providing documents to the OIC, but in some instances involves offices or departments keeping documents locally and providing copies to OIC. For example, the International Students and Scholars Office maintains all international student and scholar records, and Purchasing maintains all records of vendor screens. The export control records that are retained and secured by OIC include any licenses, license applications, policies, manuals, forms and guidelines, memoranda, notes, correspondence, screens, contracts, invoices and other financial records, shipping documents including bills of lading and Automated Export System (AES) records, records submitted to OIC for vetting including exclusion and exemption analyses, certificates, audit/review check sheets and reports, and the export control clearance form. Training records are also retained by OIC and include sign-in sheets signed by persons attending, date and location of training, speakers, and the subjects covered. Records from other departments are requested periodically by OIC for audit/control purposes and to help evaluate the Export Control Compliance Program effectiveness. Records are maintained for a period of five years from the expiration date of the authorization or date an exemption is claimed. Thereafter, the records shall be discarded consistent with the UMass Lowell record retention policy.

AUDITS AND REVIEW OF COMPLIANCE PROGRAM

Audits are designed to systematically review and monitor the effectiveness of the UMass Lowell export control compliance program and ensure compliance with export control laws. Audits will be conducted by the OIC on a quarterly basis and on an ad hoc basis as needed.

Audit objectives related to export controls include but are not limited to the following:

- Understanding and assessing the adequacy of management policies designed to comply with all U.S. export control laws and regulations.
- Documenting and evaluating controls implemented to ensure compliance with policies.
- Through testing, determine the effectiveness of these Guidelines and the controls in place and, if necessary, recommend revisions to improve the effectiveness.
- Monitor compliance of research projects and departments with export license requirements, technology control plans and these compliance guidelines.
- Identify possible violations.

The OIC will evaluate and report to the UMass Lowell Compliance Oversight Committee on an ad hoc basis on the results of its audits and the effectiveness of the export control compliance program. This process is used to identify needed modifications to the Guidelines and the SOPs to correct weaknesses identified in the compliance program.

Audits are conducted by the Institutional Compliance Office and will include, but are not limited to:

- Verify that screen checks are being performed
- Check training logs and records
- Identify current training needs
- Verify and ensure appropriate records are in compliance
- Accuracy and conformity of export transaction documents
- Foreign national procedures are effective
- License and Technology Control Plan reviews
- Stop/hold procedures in place if problems arise
- Guidelines, procedures and forms updated to reflect any regulatory changes
- Review procedures for supervisory sign-offs, task and information management between departments, including update contact persons for roles played by different departments.
- Working with other departments who share export control responsibilities to improve processes as necessary.
- Ensuring all international shipments, visa sponsorships, and international travel are properly submitted to OIC for review via examination of relevant records belonging to other UML departments.

Annual Guidelines Review

UMass Lowell Export Control Compliance Program Guidelines and Standard Operating Procedures (SOPs) will be reviewed and updated at least annually. The Director of the Office of Institutional Compliance oversees the annual review process, with assistance from the

Export Control Compliance Manager and final approval of the revisions by the UMass Lowell Compliance Oversight Committee.

DETECTING AND REPORTING VIOLATIONS

Commitment to Reporting

An integral part of export compliance is that employees report suspected violations of export laws and these suspected violations are thoroughly investigated. It is the policy of UMass Lowell to voluntarily self-disclose violations as required. Members of the UMass Lowell community are expected to contact the OIC should they have any questions about the application of the export control laws to their research or other activities. UMass Lowell faculty, administrators, staff and students should report any potential violations to the OIC. No employee shall be punished on the basis that he or she reported what was reasonably believed to be an act of wrongdoing or a violation of the export control laws.

Compliance Hotline

Suspected violations relating to export controls, as well as other compliance concerns, may be reported through the OIC compliance hotline at 978-934-3100. Messages are retrieved by the Director of Institutional Compliance and callers may remain anonymous. If callers do choose to identify themselves, the log of all calls is kept confidential.

Other Avenues for Reporting

Other avenues for reporting suspected violations include: visiting the Director of Institutional Compliance, calling the direct phone number at 978-934-3452, or sending a confidential memo by intercampus mail to the Director of Institutional Compliance at 215 Wannalancit, Lowell, MA 01854.

Investigation

Once an alleged violation has been reported, an investigation will be initiated after consultation with the UMass Lowell Compliance Oversight Committee to determine the validity of the allegation and an appropriate response. If the allegation merits further fact finding and investigation, the Committee will work with the appropriate parties to conduct a thorough investigation. The results of its investigation are then made known to senior management to consider further action, including notification of the appropriate government agency and taking corrective action. All documents and records relating to any suspected violation must be immediately secured and maintained in accordance with all applicable record keeping requirements. Information Technology and Campus Police support these investigations as needed.

Government Subpoenas

In the event any subpoena or other request for documents is received from any Federal agency, immediately contact the Office of the General Counsel for appropriate and timely response. Likewise, if a Federal agency representative arrives on campus, immediately contact the Office of Institutional Compliance for assistance. You shall not interfere with or obstruct any Federal agent or law enforcement officer in the performance of his/her duties.

EXPORT CONTROL DECISION TOOLS

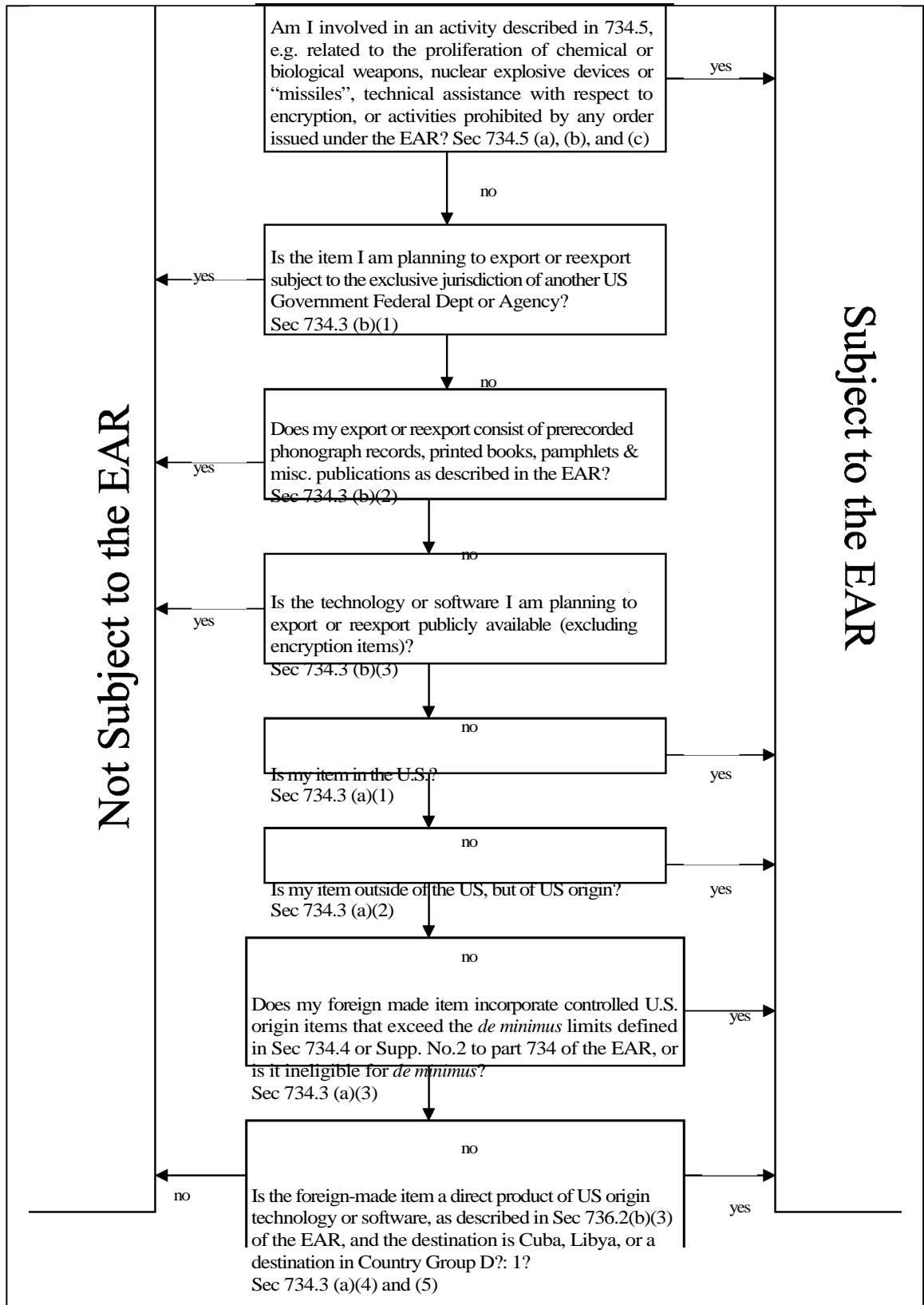
Is this Project Export Controlled?

Fundamental Research & Publicly Available Information**	Gray Area Moving from FR/PI to Export Controlled Technology	Export Controlled Areas, Applications and Intended Use
Open Research – fundamental & applied	Author or Sponsor begin to discuss restricting dissemination	An area identified by the U.S. Government Agency as being Export Controlled
Found in the public domain-released w/out restriction	Approaching or getting close to application	Technology/Information held out as proprietary or has intellectual property (declaration)
No proprietary or intellectual property considerations	Knowing or suspecting that the ultimate achievement of the objective will be controlled	Conveying or teaching technology, processes with the intent of transferring Know-How abroad
Not associated with an area excluded by General Prohibitions, end use and end user restrictions	Thinking about intellectual property	Detailed Design that conveys Know-How
Intended or held out for the General Public	Preliminary optimization leading to design alternative	Operating & Maintenance Manuals (ITAR, poss. EAR)
Issued by the U.S. Government with the intent of Openly Releasable	Thinking about making the technology or information proprietary	Technology Transfer-Material that helps or supports Export Control Technology
Data gathering or note taking		
NO EXPORT CONTROL	GRAY AREA	EXPORT CONTROLS CAN APPLY

* Note: Each technology area may use different terms/processes that needs to be taken into account. The degree of rigor is highly dependent on the criticalness of the technology under development.

**Excludes General Prohibitions & End Use/User Restrictions

Am I subject to Export Administration Regulations? (Supplement No. 2 to Part 732)



ADDITIONAL RESOURCES

UMass Lowell Office of Institutional Compliance <http://www.uml.edu/Research/OIC/default.aspx>

Helpful Government Information

- U.S. Bureau of Industry Key Regulatory Areas and Export Administration Regulations <http://www.bis.doc.gov/index.php/policy-guidance>
- Electronic Code of Federal Regulations (eCFR), Commerce and Foreign Trade https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title15/15tab_02.tpl
- Commerce, State, and Treasury Department Consolidated Screening Lists http://export.gov/ecr/eg_main_023148.asp
- Searchable Commerce Control List <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&sid=2f218f17d3e9d4d8f1d488381d5b0da8&rgn=div5&view=text&node=15:2.1.3.4.45&idno=15>
- International Traffic in Arms Regulations, See Part 121, U.S. Munitions List <http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=41a4014c144f570902fe29b4e9bd89ed&r=PART&n=22y1.0.1.13.57>
- Export Control Violations (case examples) <https://www.justice.gov/nsd/page/file/1044446/download>
<https://www.bis.doc.gov/index.php/documents/enforcement/1005-don-t-let-this-happen-to-you-1>
- "Specially Designed" Decision Tree to help assist with the analysis:
Commerce Department: <http://www.bis.doc.gov/index.php/specially-designed-tool>

Training Information

- Contact the Office of Institutional Compliance for specific training.
- Login to <https://about.citiprogram.org/en/homepage/> and complete the Export Control training.
- BIS online training at <http://www.bis.doc.gov/index.php/compliance-a-training/export-administration-regulations-training>

Forms (from <http://www.uml.edu/Research/OIC/export-controls/forms.aspx>)

- Request for Annual Certification to Travel with UMass Lowell Issued Electronic Devices
- Pre-Travel Registry – Terra Dotta
- Request to Ship Materials or Equipment Outside of the U.S.
- Request to Ship Document-Promotional Items from the U.S.
- Research Services Review Form
- End User Certification Form
- Sponsor Letter Template (Research Appointment)
- Sponsor Letter Template (Teaching Appointment)
- Information Sheet for Companies Requesting UMass Lowell Services
- Short Term International Visitor Request Form