



**Export Control Compliance Program Guidelines  
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## TABLE OF CONTENTS

Introduction .....	3
Institutional Policy .....	5
Federal Laws, Regulations, and Penalties .....	6
Key Terms and Definitions .....	8
Training Program .....	15
Regulated Items .....	17
ITAR-Controlled Items	
Definition of Export under the ITAR	
Authorization to Export	
Items Subject to the EAR	
Export Control Classification Number	
Export Control Decision Tree .....	19
Key Issues in University Activities .....	20
Fundamental Research Exclusion	
Educational Information Exclusion	
Publicly Available Information / Public Domain	
Physical Exports	
Deemed Exports	
Supercomputers	
Encryption Software and Technology	
Restricted-Party Screening Lists	
Supplier Classification of Item	
Immigration Sponsor Letters	
International Travel and Travel Registration	
Technology Control Plans	
Identification, Receipt, and Tracking of ITAR-Controlled Items	
Screening the Customer and Restricted/Prohibited Exports and Transfers	
Large Equipment Purchases	
Activities with Persons or Entities in OFAC-Sanctioned Countries	
OFAC and EAR/ITAR Embargoes .....	27
Licensing Information .....	30
Roles and Responsibilities .....	31
Export Control Compliance Organization Chart .....	37
Record Keeping .....	38
Export Control Compliance Program Reviews and Audits .....	38
Detecting and Reporting Violations .....	39
University of Massachusetts Amherst Online Resources .....	40

The information in this document has been derived from multiple sources, including [www.ecfr.gov](http://www.ecfr.gov), 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, U.S. Department of the Treasury, Office of Foreign Assets Control, and U.S. Department of Commerce, Bureau of Industry and Security. Many thanks to all of you.

## INTRODUCTION

Export controls are U.S. laws and regulations that restrict the release of critical technologies, information, and services to foreign nationals, within and outside of the United States, and foreign countries for reasons of foreign policy and national security. The scope of export-controlled items is very broad and includes, but is not limited to, equipment, software code, chemical and biological materials, and technical data. These laws and regulations, which include international sanctions programs, also restrict activities within certain countries (see <https://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx>(link is external)) and with designated institutions, entities, and individuals, even if no controlled items are involved.

Export controls apply to virtually all fields of science and engineering and restrict both physical shipments and electronic transmission of information. These laws apply to all activities – not just sponsored research projects.

Exports include:

- An actual shipment or transmission out of the United States, including sending or taking a controlled item or information out of the United States in any manner;
- Releasing or otherwise transferring (including verbally or visually) information about a controlled item to a foreign person in the United States (a "deemed export");
- Transferring registration, control, or ownership of certain controlled items to a foreign person; and
- Use or application of controlled technology on behalf of, or for the benefit of, any foreign person or entity, either in the U.S. or abroad.

The following high risk disciplines and programs have been designated for particular focus for export control compliance at the University of Massachusetts Amherst (UMA): Engineering, Physics, Astronomy, Polymer Science, Computer Science, 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 involved persons or entities against Government-issued lists of sanctioned, barred, or otherwise restricted persons or entities?
- 9) Is a license required? If so, is enough time available to secure one?
- 10) Will the activity involve a sanctioned or embargoed country?

These guidelines outline procedures for members of the UMA community to follow to ensure compliance with all export control laws and regulations. If you have questions about the application of export controls to your activities at UMA, please contact Ellie Kurth, Assistant Director, Research Risk Management, at [gkurth@umass.edu](mailto:gkurth@umass.edu) or Oliver Waldman, Export Control Compliance Specialist, at [oliver.waldman@umass.edu](mailto:oliver.waldman@umass.edu).



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It is the policy of the University of Massachusetts Amherst to comply fully with U.S. export control and trade sanctions laws and regulations. U.S. laws and regulations that govern exports or access to certain information or technologies, or services by foreign persons inside the U.S., have received increased attention recently and have impacted programs at all major research universities. These laws and regulations are currently administered by various Federal agencies, chief among them the Departments of Commerce, State, and Treasury.

Because these laws and regulations involve many aspects of our enterprise and are receiving increased attention by the Federal government, the University of Massachusetts Amherst (UMA) has appointed an Oversight Committee for Export Control Compliance (OCECC). The current membership of the Committee includes:

- ❖ Interim Provost and Senior Vice Chancellor for Academic Affairs, John McCarthy
- ❖ Vice Chancellor for Research & Engagement, Michael Malone (OCECC Chair)
- ❖ Vice Chancellor for Administration & Finance, Andrew Mangles
- ❖ Chief Information Officer, Julie Buehler

The OCECC oversees export controls and trade sanctions compliance for the campus and, with implementing departments, it develops and monitors procedures and record keeping systems to ensure compliance.

While the University places a high priority on compliance with export regulations, it is also the mission and policy of University of Massachusetts Amherst to conduct instruction and research openly and without prohibitions on the dissemination of learning or research results. As a result, in most instances the requirements of U.S. export control laws can be satisfied through reliance on available exclusions, such as exclusions for educational information and information that is publicly available or in the public domain. Key among these exceptions is the fundamental research exclusion (FRE). Fundamental research is basic or applied research in science and engineering, the results of which are ordinarily published and shared broadly within the scientific community. Restrictions on the publication of research results and personnel access restrictions can invalidate the fundamental research exclusion. Also, it is important to understand that the FRE does not provide exclusion for the physical export of goods or materials (even where FRE applies to the research).

Export controls may also apply to the disclosure of certain kinds of information or technology to foreign nationals inside the United States, because these are “deemed exports” under the regulations. An export license may be required before initiating these activities.

Additionally, the Amherst campus demands strict compliance with Office of Foreign Assets Control (OFAC) regulations governing transactions with embargoed countries and prohibited entities and individuals. A license from OFAC may be required for certain transactions. The Office of Research Compliance, under the Vice Chancellor for Research & Engagement, will facilitate legal advice and a license application if one is necessary for your university activities; note that this is the only authorized means to apply for licenses required under export regulations.

Faculty, administrators, and staff are required to be aware of and comply with export regulations and UMA’s written guidance and procedures regarding them. Faculty are responsible for securing their research and technology, chemicals and biological materials, and proprietary and Government articles or information entrusted to them against unauthorized use or theft. Faculty are also responsible for screening any potential foreign research collaborator and foreign visitor against the Government’s Consolidated Screening List at [https://build.export.gov/main/ecr/eg\\_main\\_023148](https://build.export.gov/main/ecr/eg_main_023148) to ensure that person is not embargoed or sanctioned and to ensure that the proposed end use is appropriate. Faculty, administrators, and staff are expected to contact the Office of Research Compliance ([dansacco@research.umass.edu](mailto:dansacco@research.umass.edu) or (413) 545-3468) should they have any questions about the application of U.S. export controls or trade sanctions to their research or other activities and should report any potential violations or concerns directly to the Office of Research Compliance.

## FEDERAL LAWS, REGULATIONS, AND PENALTIES

Three U.S. Government agencies have primary export control regulatory responsibilities. The Department of Commerce, Bureau of Industry and Security through its Export Administration Regulations (EAR), the State Department, Directorate of Defense Trade Controls 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), which is found within EAR, and the State Department administers the U.S. Munitions List (USML), which is found within ITAR.

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.

<b>Mechanism</b>	<b>Governing Department</b>	<b>Covers</b>
EAR	Commerce	Dual-use goods, technology, chemicals and software
ITAR	State	Military items; 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 *inside* the U.S. (deemed exports).

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

The majority of exports do not require government licenses. Only commodities, software, and technology that the U.S. Government considers “subject to the EAR” and ITAR-controlled items require licenses. Export licenses usually are 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, or
- Government concerns about the declared or suspected end use or the end user of the export.

Even if an item appears on a list of controlled items, there may be exemptions, exclusions, or exceptions that apply, such as the exclusion for “fundamental research.” For research to be considered “fundamental research,” there cannot be personnel access restrictions or publication restrictions.

The University will assist any community member in complying with export control laws and trade sanctions, including securing licenses from U.S. Government agencies, where appropriate. The primary responsibility for compliance, however, 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 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 invitation, sponsorship, or supervision;
- Complying with all export control requirements that apply to physical shipments, including proper shipping permits and making Automated Export System (AES) filings;
- Conducting export control analysis (including screening for sanctioned or embargoed persons, entities, and countries) prior to foreign travel, sponsoring foreign visitors at UMA, 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 at the export controls section of the Research & Engagement website at: <http://www.umass.edu/research/export-control>.

For step-by-step instructions on how to determine the ECCN of any good, software, or technology, follow the instructions on the Department of Commerce web page at <https://www.bis.doc.gov/index.php/licensing/commerce-control-list-classification>. Also, there is free online training available from the Department of Commerce at: <https://www.bis.doc.gov/index.php/compliance-a-training/export-administration-regulations-training/online-training-room>.

### **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>. These materials are not, however, exclusively regulated by the CDC and USDA. Release of these materials ordinarily 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, including, for example, the Nuclear Regulatory Commission, the Department of Energy, the Food and

Drug Administration, and the Drug Enforcement Agency, and those laws and regulations must be followed.

### **Penalties**

Severe civil and criminal penalties, including fines and imprisonment, may be imposed for violating the export control laws and trade sanctions, and both individuals and their organizations may be subject to these penalties. The University and the individual(s) involved may also lose their ability to export. The University may 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 a university can include 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 reach up to \$250,000 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 10 years imprisonment for individual willful violations. Civil penalties imposed upon departments, agencies, and officials can reach up to \$500,000 per violation. A university found to be in violation of ITAR regulations can be debarred from contracting with the government and could lose its export privilege.

**OFAC:** Penalties will range depending upon the sanction regime in question. Criminal violations by a university can result in a penalty of up to \$1 million, and criminal penalties for individuals can reach \$1 million or 20 years in prison, or both. Civil penalties can be imposed up to \$250,000 per violation, or two times the transaction in question, or both.

## **KEY TERMS AND DEFINITIONS**

Common words may have specific meanings within export control laws and regulations. Several key definitions are provided below. Complete EAR definitions are found in 15 CFR § 772.1, *Definitions of terms as used in the Export Administration Regulations (EAR)*, and other sections of the EAR. ITAR definitions are found in 22 CFR Part 120, *Purposes and Definitions* (§§ 120.1-120.51).

The U.S. Code of Federal Regulations (CFR) can be accessed online at <https://www.ecfr.gov/cgi-bin/ECFR?page=browse>.

**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 (15 CFR Part 774, Supp. 1).

The CCL is divided into ten categories: (0) Nuclear Materials, Facilities and Equipment and Miscellaneous; (1) Materials, Chemicals, "Microorganisms," and Toxins; (2) Materials Processing;



(3) Electronics; (4) Computers; (5) Telecommunications and Information Security; (6) Lasers and Sensors; (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) Equipment, Assemblies and Components; (B) Test, Inspection and Production Equipment; (C) Materials; (D) Software; and (E) Technology.

**Consolidated Screening List** – all transactions with potential export restrictions should be checked against published lists of prohibited countries, persons, and entities before proceeding. A consolidated screening list can be found at [https://build.export.gov/main/ecr/eg\\_main\\_023148](https://build.export.gov/main/ecr/eg_main_023148).

**Deemed Export** – Whenever a foreign national on U.S. soil (or abroad) may be exposed to or is able to access in any manner export-controlled technology or source code (EAR) or technical data (ITAR). *See* 15 CFR § 734.13 (EAR); 22 CFR § 120.17 (ITAR). Under the EAR, “technology” is defined as “Information necessary for the “development,” “production,” “use,” operation, installation, maintenance, repair, overhaul, or refurbishing (or other terms specified in ECCNs on the CCL that control “technology”) of an item.” 15 CFR § 772.1. Under the ITAR, “technical data” is defined, in relevant part, to include “Information...which is required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance or modification of defense articles. This includes information in the form of blueprints, drawings, photographs, plans, instructions or documentation.” 22 CFR § 120.10. Deemed exports do not include mere access to controlled articles or materials without any associated information. It is “deemed” to be an export to the foreign person’s most recent country of citizenship or permanent residency (EAR) or to all countries in which the foreign person has held or holds citizenship or holds permanent residency (ITAR). Deemed exports may occur through such means as a demonstration, oral briefing, or laboratory visit, as well as the electronic transmission of non-public information or software.

**Deemed Re-export** – The release of controlled technology by a foreign national who has been licensed to receive it to the national of another foreign country who has not been licensed to receive the controlled technology. 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. *See* 15 CFR § 734.14(a)(2).

**Defense Article** - Any item designated in the U.S. Munitions List (22 CFR § 121.1). These items consist of articles which are specifically designed, developed, configured, adapted or modified for military application and related technical data. Examples include specified chemical agents, cameras designated for military purposes, specified lasers, and some GPS equipment and any directly related technical data. 22 CFR § 120.6.

**Defense Service** - (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 ITAR, 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. 22 CFR §120.9.

**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 and certain munitions items listed on the Wassenaar Arrangement Munitions List (WAML) or the Missile Technology Control Regime Annex are also subject to the EAR (see §734.2(a) of the EAR). 15 CFR § 772.1. Items that are subject to the EAR but do not have a specific ECCN are classified as EAR99.

**Educational Information** – Under the EAR, information taught in course catalog courses and teaching laboratories associated with these course catalog courses are not export controlled. (Encryption software with symmetric key length exceeding 64 bits does not meet this exclusion.) 15 CFR § 734.3(b)(3)(iii). Under the ITAR, information concerning general scientific, mathematical, or engineering principles commonly taught in schools, colleges, and universities, or information in the public domain is not subject to export controls. 22 CFR § 120.10(b).

**Export (EAR)** - (1) An actual shipment or transmission out of the United States, including the sending or taking of an item out of the United States, in any manner;

(2) Releasing or otherwise transferring “technology” or source code (but not object code) to a foreign person in the United States (a “deemed export”);

(3) Transferring by a person in the United States of registration, control, or ownership of:

(i) A spacecraft subject to the EAR that is not eligible for export under License Exception STA (*i.e.*, spacecraft that provide space-based logistics, assembly or servicing of any spacecraft) to a person in or a national of any other country; or

(ii) Any other spacecraft subject to the EAR to a person in or a national of a Country Group D:5 country.

(b) Any release in the United States of “technology” or source code to a foreign person is a deemed export to the foreign person's most recent country of citizenship or permanent residency.

(c) The export of an item that will transit through a country or countries to a destination identified in the EAR is deemed to be an export to that destination.

15 CFR § 734.13.

**Export (ITAR)** - (1) An actual shipment or transmission out of the United States, including the sending or taking of a defense article out of the United States in any manner;

(2) Releasing or otherwise transferring technical data to a foreign person in the United States (a “deemed export”);

(3) Transferring registration, control, or ownership of any aircraft, vessel, or satellite subject to the ITAR by a U.S. person to a foreign person;

(4) Releasing or otherwise transferring a defense article to an embassy or to any of its agencies or subdivisions, such as a diplomatic mission or consulate, in the United States;

(5) Performing a defense service on behalf of, or for the benefit of, a foreign person, whether in the United States or abroad; or

(6) A launch vehicle or payload shall not, by reason of the launching of such vehicle, be considered an export for purposes of this subchapter. However, for certain limited purposes (see §126.1 of this subchapter), the controls of this subchapter may apply to any sale, transfer or proposal to sell or transfer defense articles or defense services.

(b) Any release in the United States of technical data to a foreign person is deemed to be an export to all countries in which the foreign person has held or holds citizenship or holds permanent residency.

22 CFR § 120.17.

**Export Administration Regulations (EAR)** - Regulations (15 CFR Parts 730-774) promulgated and implemented by the Department of Commerce that regulate the export of goods, software, and related technology identified on the Commerce Control List (CCL), Title 15 CFR Part 774, Supplement 1. The EAR also includes export restrictions, sanctions, and embargoes to specified persons, entities, and countries.

**Export Control Classification Number (ECCN)** - The numbers used in supplement no. 1 to part 774 of the EAR (the CCL) and throughout the EAR. The Export Control Classification Number consists of a set of digits and a letter. Reference §738.2(c) of the EAR for a complete description of each ECCN's composition. All commodities, software and technology not specifically identified on the CCL are classified as “EAR99.”

**Foreign Person** – Under the EAR, any natural person who is not a lawful permanent resident of the United States, citizen of the United States, or any other protected individual as defined by 8 U.S.C. 1324b(a)(3). It also means any corporation, business association, partnership, trust, society or any other entity or group that is not incorporated in the United States or organized to do business in the United States, as well as international organizations, foreign governments and any agency or subdivision of a foreign government (*e.g.*, diplomatic mission). “Foreign person” is synonymous with “foreign national,” as used in the EAR, and “foreign person” as used in the International Traffic in Arms Regulations (22 CFR 120.16). 15 CFR § 772.1.

Under the ITAR, any natural person who is not a lawful permanent resident as defined by 8 U.S.C. 1101(a)(20) or who is not a protected individual as defined by 8 U.S.C. 1324b(a)(3). It also means any foreign corporation, business association, partnership, trust, society or any other

entity or group that is not incorporated or organized to do business in the United States, as well as international organizations, foreign governments and any agency or subdivision of foreign governments (e.g., diplomatic missions). 22 CFR § 120.16.

**Fundamental Research** – Under the EAR, 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. 15 CFR § 734.8(c). Under the ITAR, basic and applied research in science and engineering, conducted at accredited institutions of higher learning in the U.S., where the resulting information is ordinarily published and shared broadly within the scientific community, as distinguished from research the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls. 22 CFR § 120.11(8).

**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. 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. 22 CFR § 120.11(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.*

**Immigration sponsor letter** – any letter or correspondence offered to the U.S. Bureau of Citizenship and Immigration Services (USCIS) on behalf of a Visa applicant upon which USCIS would rely for the purposes of issuing a Visa.

**International Traffic in Arms Regulations (ITAR)** – Regulations (22 CFR Parts 120-130) promulgated and implemented by the Department of State that regulate defense articles and defense services and related technical data identified on the U.S. Munitions List (USML), 22 CFR § 121.1. The USML is available at <https://www.ecfr.gov/cgi-bin/text-idx?node=pt22.1.121>.

**OCECC** – The UMA Oversight Committee for Export Control Compliance is the executive management committee charged with oversight of the campus' export control compliance program. The OCECC convenes annually to oversee the Implementation Committee of key stakeholders and responsible departments for the development, monitoring and deployment of Standard Operating Procedures (SOPs) implementing these guidelines.

**OVCRE** – The UMA Office of the Vice Chancellor for Research & Engagement is the lead executive area for coordination of export compliance. The Office of Research Compliance (ORC) is the OVCRE office charged with export control compliance administration and

oversight. The Vice Chancellor for Research & Engagement chairs the OCECC and the Director of Research Compliance leads the Implementation Committee.

**ORC** – The Office of Research Compliance (ORC) is the lead administrative office for export control compliance and relies upon cooperation of other implementing departments such as the International Programs Office (IPO), Procurement, Human Resources, Travel, etc., to ensure compliance with these guidelines and for the development of Standard Operating Procedures (SOPs) to implement them.

**Public Domain** – Under the ITAR, information that is published and that is generally accessible or available to the public are not export-controlled.

Under ITAR, *public domain* means information which is published and which is generally accessible or available to the public:

- (1) Through sales at newsstands and bookstores;
- (2) Through subscriptions which are available without restriction to any individual who desires to obtain or purchase the published information;
- (3) Through second class mailing privileges granted by the U.S. Government;
- (4) At libraries open to the public or from which the public can obtain documents;
- (5) Through patents available at any patent office;
- (6) Through unlimited distribution at a conference, meeting, seminar, trade show or exhibition, generally accessible to the public, in the United States;
- (7) Through public release (*i.e.*, unlimited distribution) in any form (e.g., not necessarily in published form) after approval by the cognizant U.S. government department or agency (see also §125.4(b)(13) of this subchapter);
- (8) Through 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. Fundamental research is defined to mean basic and applied research in science and engineering where the resulting information is ordinarily published and shared broadly within the scientific community, as distinguished from research the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls. University research will not be 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.

**Published/Publicly Available** – Under the EAR, information and software that are published are not subject to the EAR. Information or software is published when it has been made *available to the public without restrictions upon its further dissemination* such as through any of the following:

- (1) Subscriptions available without restriction to any individual who desires to obtain or purchase the published information;
- (2) Libraries or other public collections that are open and available to the public, and from which the public can obtain tangible or intangible documents;
- (3) Unlimited distribution at a conference, meeting, seminar, trade show, or exhibition, generally accessible to the interested public;
- (4) Public dissemination (*i.e.*, unlimited distribution) in any form (*e.g.*, not necessarily in published form), including posting on the Internet on sites available to the public; or
- (5) Submission of a written composition, manuscript, presentation, computer-readable dataset, formula, imagery, algorithms, or some other representation of knowledge with the intention that such information will be made publicly available if accepted for publication or presentation:
  - (i) To domestic or foreign co-authors, editors, or reviewers of journals, magazines, newspapers or trade publications;
  - (ii) To researchers conducting fundamental research; or
  - (iii) To organizers of open conferences or other open gatherings.

15 CFR § 734.7

**Sanctioned Country** – Even when exclusions to EAR or ITAR apply, the U.S. Treasury Department, Office of Foreign Assets Control (OFAC) may prohibit payment, travel, and the transfer of items, assets, and services of value to sanctioned nations. OFAC’s complete list of sanctions programs and country information can be found here: <https://www.treasury.gov/resource-center/sanctions/Pages/default.aspx>.

**Specially Designated Nationals (SDN)** - Individuals and companies owned or controlled by, or acting for or on behalf of, countries subject to sanctions by the U.S. Department of Treasury, Office of Foreign Assets Control (OFAC). SDNs also include individuals, groups, and entities, such as terrorists and narcotics traffickers designated under programs that are not country-specific. Their assets are blocked and U.S. persons are generally prohibited from dealing with them. OFAC’s Specially Designated Nationals and Blocked Persons List (SDN) can be found here: <https://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/default.aspx>.

**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** – Under the ITAR, information that is required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance or modification of defense articles. This includes information in the form of blueprints, drawings, photographs, plans, instructions or documentation.

Technical data does not include information concerning general scientific, mathematical, or engineering principles commonly taught in schools, colleges, and universities, or information in the public domain, as defined in 22 CFR § 120.11, or telemetry data as defined in note 3 to Category XV(f) of the USML. It also does not include basic marketing information on function or purpose or general system descriptions of defense articles.

22 CFR § 120.10.

**Technology** – Under the EAR, information necessary for the “development,” “production,” “use,” operation, installation, maintenance, repair, overhaul, or refurbishing (or other terms specified in ECCNs on the CCL that control “technology”) of an item.

“Technology” may be in any tangible or intangible form, such as written or oral communications, blueprints, drawings, photographs, plans, diagrams, models, formulae, tables, engineering designs and specifications, computer-aided design files, manuals or documentation, electronic media or information revealed through visual inspection.

The modification of the design of an existing item creates a new item and technology for the modified design is technology for the development or production of the new item.

**Use** - Operation, installation (including on-site installation), maintenance (checking), repair, overhaul and refurbishing.

If an ECCN specifies one or more of the six elements of “use” in the heading or control text, only those elements specified are classified under that ECCN.

## **TRAINING PROGRAM**

Training is a critical component of maintaining compliance with export control laws. The primary goals of training are to increase awareness of and maintain compliance with export control laws and trade sanctions. The program will educate the UMA community of its responsibilities under these laws and the UMA 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 Research Compliance (ORC) or the CITI program ([see https://www.umass.edu/research/compliance/research-safety-and-security/export-control-training-program](https://www.umass.edu/research/compliance/research-safety-and-security/export-control-training-program)). The scope of training will depend on the nature of an individual’s or group’s exposure to export-controlled items and/or information.

### **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 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 ORC 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 UMA Export Control Compliance Program Guidelines,
- Regulatory agencies controlling exports,
- Definition of an Export and what regulations apply,
- Definitions of Deemed Export and Foreign Persons,
- U.S. Munitions List and Commerce Control List,
- Fundamental research and educational information exclusions,
- Campus contacts for further assistance,
- FAQs/questions and answers.

Other topics included in introductory and/or intermediary training:

- 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),
- Screening for embargoed countries,
- Examples of common license exceptions,
- Who to contact about questionable transactions,
- Enforcement of violations and the range of severe sanctions and penalties.

Advanced training topics for faculty, administrative staff, and students include:

- Contract language that restricts publication or 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,

### **Department Training**

Special efforts will be taken to ensure that all departments in high risk disciplines such as Engineering, Physics, Astronomy, Polymer Science, Computer Science, 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.

### **License Training and Briefings**

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



## **Other Materials**

While some training will be classroom style with opportunity for questions and discussion, additional information may be provided in the form of email notifications and announcements, online training and information, and invited speakers. Useful information and materials are available on the Research & Engagement website at <http://www.umass.edu/research/compliance/research-safety-and-security/export-controls>.

## **Training Timelines**

Formal training events will be scheduled at a minimum annually. One-on-one faculty and administrative staff training is scheduled as necessary throughout the year by contacting the ORC.

## **Training Records**

All records of training sessions will be maintained by the ORC for a period of five years. The records shall include date and place of training, notation of attendees, list of speakers, and the subjects covered.

# **REGULATED ITEMS**

## **ITAR-Controlled Items**

The Department of State, Directorate of Defense Trade Controls (DDTC) administers export controls related to defense articles and services under the International Traffic in Arms Regulations, 22 CFR Parts 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.” Definitions of these terms are included in the definitions section above. An item that contains any ITAR-controlled components is also controlled under the ITAR.

For the complete International Traffic in Arms Regulations, go to:

[https://www.ecfr.gov/cgi-bin/text-idx?SID=ccb3fcb5e834d62af0b27ce918f363e1&mc=true&tpl=/ecfrbrowse/Title22/22CIs\\_0bchapM.tpl](https://www.ecfr.gov/cgi-bin/text-idx?SID=ccb3fcb5e834d62af0b27ce918f363e1&mc=true&tpl=/ecfrbrowse/Title22/22CIs_0bchapM.tpl).

## **Definition of Export under the ITAR**

The ITAR defines the term 'export' broadly. The term, which is included in the definitions section above, applies not only to exports of tangible items from the U.S. but also to transfers of intangibles, such as 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 manufacturers, brokers, or exports defense articles or defense services must 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 purpose, including research and development.

## **Items Subject to the EAR**

The Department of Commerce, Bureau of Industry and Security regulates the export of commercial products, software, and technology under the Export Administration Regulations (EAR), 15 CFR Parts 730-774. The EAR covers a wider range of products and technology than ITAR. 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, all 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 export of a wide range of items with potential 'dual' commercial and military use, or otherwise of strategic value to the U.S. (but not made to military specifications). Only items listed on the Commerce Control List (CCL), however, require a license prior to export. 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.

For details about the CCL, go to [https://www.ecfr.gov/cgi-bin/text-idx?SID=ac6a0772b1b364b28699eb9e6e895009&mc=true&tpl=/ecfrbrowse/Title15/15cfr738\\_main\\_02.tpl](https://www.ecfr.gov/cgi-bin/text-idx?SID=ac6a0772b1b364b28699eb9e6e895009&mc=true&tpl=/ecfrbrowse/Title15/15cfr738_main_02.tpl).

For the complete Export Administration Regulations, go to <https://www.ecfr.gov/cgi-bin/text-idx?SID=b9cd3bd51c44b02d94a654539690ac60&mc=true&tpl=/ecfrbrowse/Title15/15CVIIsubchapC.tpl>.

## **Export Control Classification Number (ECCN)**

The term "dual use" is often used to describe the types of items subject to the EAR. A "dual-use" item is one that has civil applications as well as terrorism and military or weapons of mass destruction (WMD)-related applications. The precise description of what is "subject to the EAR" is in 15 CFR § 734.3, which does not limit the EAR to controlling only dual-use items. In essence, the EAR control any item warranting control that is not exclusively controlled for export, re-export, or transfer (in-country) by another agency of the U.S. Government or otherwise excluded from being subject to the EAR pursuant to §734.3(b) of the EAR. Thus, items subject to the EAR include purely civilian items, items with both civil and military, terrorism, or potential WMD-related applications, and items that are exclusively used for military applications but that do not warrant control under the International Traffic in Arms Regulations (ITAR). 15 CFR § 730.3.

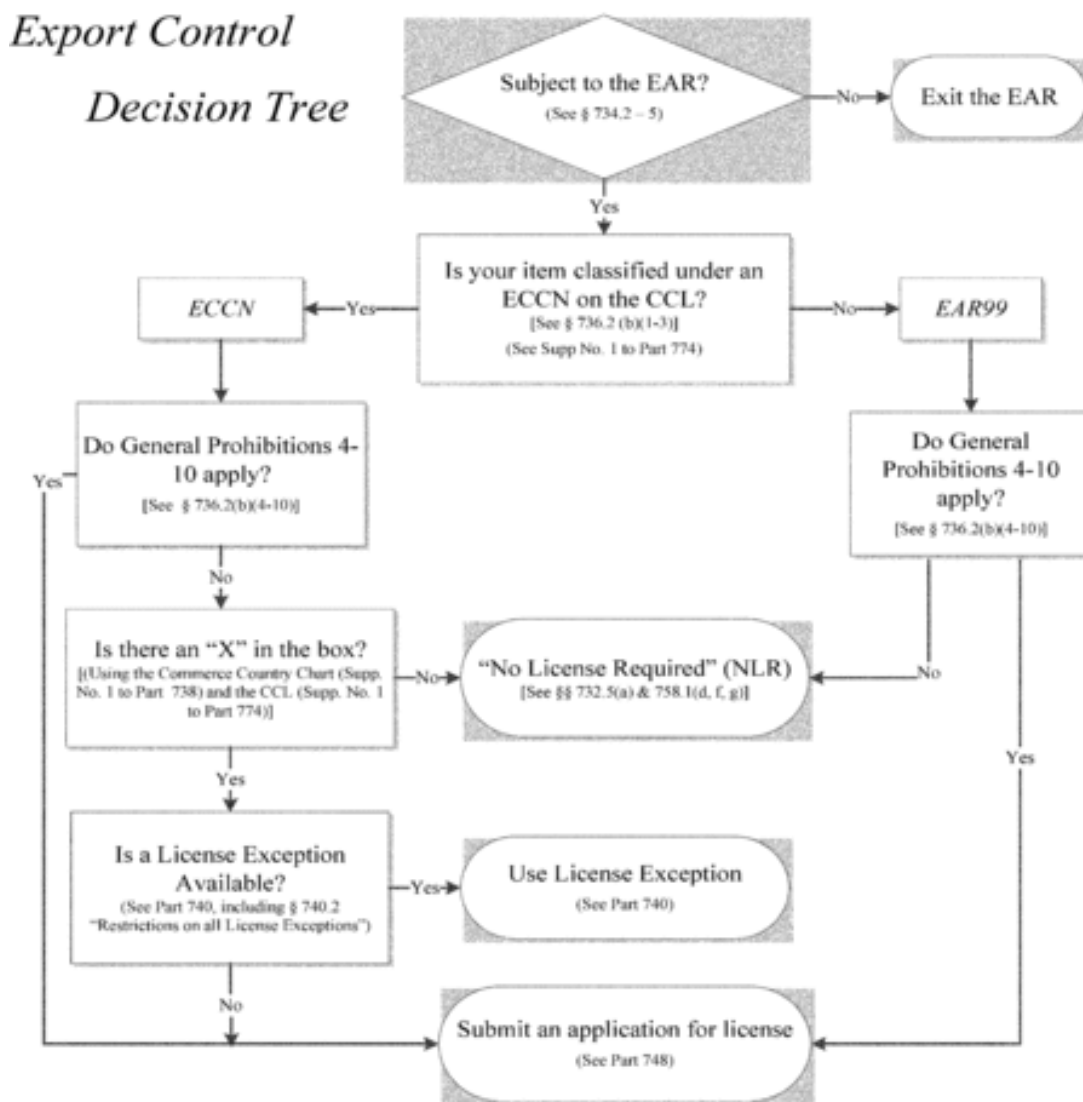
The CCL categorizes items and related technology into ten topical categories, as discussed in the definitions section above. Items are further identified by Export Control Classification Number (ECCN). Items subject to the EAR, but not assigned a specific ECCN, fall under a catch-all category called, "EAR99."

The fundamental difference in the EAR and ITAR is that the ITAR apply to articles and services that are inherently military in nature, while the EAR is concerned with "dual use" items (items

that have civil as well as military applications). Another difference is the treatment of fundamental research. In the ITAR, fundamental research is subsumed under “public domain” exception, while in the EAR it is a separate and distinct category.

In order to know whether you may export a dual-use 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-use. Fourth, you have to check the proposed end-user. The flow chart that follows shows the steps to determining whether or not a license is required under the EAR.

**SUPPLEMENT NO. 1 TO PART 732 – EXPORT CONTROL DECISION TREE**



15 CFR Part 732, Supp. 1.

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.

For step-by-step instructions on how to determine the ECCN of any commodity, software, or technology follow the instructions on the Department of Commerce web page at <https://www.bis.doc.gov/index.php/licensing/commerce-control-list-classification>. Also, there is free online training available from the Department of Commerce at: <https://www.bis.doc.gov/index.php/compliance-a-training/export-administration-regulations-training/online-training-room>.

## **KEY ISSUES IN UNIVERSITY ACTIVITIES**

Export regulations require attention to several considerations in a university setting, including the recipient, the destination, involvement of controlled technology, the anticipated end use of that technology, and governmental jurisdiction to determine how the regulations apply and whether a license must be obtained. Most activities conducted at UMA are likely to qualify for license exclusions for information that is Published or otherwise available in the Public Domain, such as the Educational Information Exclusion and the Fundamental Research Exclusion. Otherwise, an export license may be required to allow participation by foreign nationals in research or for foreign research collaborations.

### **Fundamental Research Exclusion (FRE)**

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).

The EAR defines fundamental research as “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.” 15 CFR § 734.8(c). While the FRE under the EAR does not allow researchers to accept restrictions on publication of scientific and technical information resulting from the project or activity, or personnel access restrictions, it does allow for 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. 15 CFR § 734.8(b). A general reference to one or more export control laws or regulations or a general reminder that the Government retains the right to classify is not a specific national security control.

By comparison, the ITAR defines fundamental research as “basic and applied research in science and engineering where the resulting information is ordinarily published and shared broadly within the scientific community, as distinguished from research the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls.” 22 CFR § 120.11(a)(8). The ITAR clarifies that university research will not be considered fundamental research if: (1) the university or its researchers accept other 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 are applicable. 22 CFR § 120.11(8).

The Office of Grant and Contract Administration (OGCA) and the ORC carefully review proposed research projects to ensure the scope of the work qualifies for the fundamental research exclusion. If further review is needed, ORC undertakes a complete export control analysis with technical assistance from the PI and input, as needed, from the University's Office of the General Counsel (OGC) and outside counsel. 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 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.

A deemed export may occur if information, which is not otherwise publicly available, about the development, production, use, operation, installation, maintenance, repair, overhaul, or refurbishing of a controlled item or defense article is released to a foreign person in the United States. *See* 15 CFR §§ 734.13(a)(2), 772.1; 22 CFR §§ 120.10(a)(1), 120.17(a)(2).

### **Educational Information Exclusion**

One of the most important exclusions within the EAR and ITAR applicable to universities is the exclusion for educational information. Under the EAR, information and software released by instruction in course-catalog courses and associated teaching laboratories are not export controlled. *See* 15 CFR § 734.3(b)(3)(iii). Under the ITAR, information concerning general scientific, mathematical, or engineering principles commonly taught in universities is not subject to export controls. 22 CFR § 120.10.

### **Publicly Available Information/Public Domain**

Information that is available in the public domain also is not subject to export controls. Under both the ITAR and EAR, information that is published and that is generally accessible or available to the public is said to be within the "public domain" and not export controlled. *See* 22 CFR §§ 120.10, 120.11; 15 CFR §§ 734.3(b)(3), 734.7. Exemplar sources of public-domain information 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) patents available at any patent office; (f) unlimited distribution at a conference, meeting, seminar, trade show, or exhibition, generally accessible to the public, in the United States; (g) public dissemination in any form, including posting on the Internet on sites available to the public; and (h) any public release after approval by the cognizant U.S. Government department or agency. In addition to the examples listed above, the EAR specifically provides that software that is available for general distribution is publicly available (except for published encryption software classified under ECCN 5D002, which remains subject to the EAR). *See* 15 CFR 734.7.

## **Physical Exports**

If a physical export is necessary, a sequential analysis should begin with a governmental jurisdiction determination and then the classification process. The researcher is typically the best – and *key* – person to assist with determining the ECCN of a given item. The alphabetical index to the Commerce Control List, which can be used to help with the classification, can be found at: <https://www.bis.doc.gov/index.php/forms-documents/regulations-docs/13-commerce-control-list-index>. Further, Supplement No. 4 to Part 774 of the EAR, the Commerce Control List Order of Review, identifies the steps to follow when reviewing the Commerce Control List.

Using the ECCN, it must be determined whether an export license is required. You are also required to know your item recipient 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 also check whether the General Prohibitions in 15 CFR § 736.2 apply. 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. The ORC can help make these determinations. The process may include completing a Request to Ship Materials Out of the U.S. and having an End User Certification Form completed by the end user.

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 either the applicable ECCN or that a license exception applies. Information is available here: <https://www.bis.doc.gov/index.php/exporter-portal>. Contact the ORC for assistance with this process.

## **Deemed Exports**

While exports are typically 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 or on behalf of foreign nationals even when the transfer or service takes place within the U.S. This transfer is “deemed” to be an export to the foreign national’s home country. 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 information that is publicly available or in the public domain, including the fundamental research exclusion. UMA is committed to ensuring these exclusions are relied upon and satisfied. For example, with respect to fundamental research, it is the policy of UMA that research shall be conducted openly and without prohibitions on the publication and dissemination of results, absent specific authorization to the contrary.

A “deemed export” under ITAR involves the export within the United States to a foreign person of technical data, in other words, information or software required for the development, production, or use of defense articles included on 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 EAR involves the export within the United States to a foreign national of technology or software required for the development, production, or use of a good. Importantly, information about “use” must include **all** of the following to constitute a deemed export: operation, installation, maintenance (checking), repair, overhaul **and** refurbishing. 15 CFR § 772.1. If the foreign national has access only to the technology that is necessary to operate the export-controlled equipment, a release of “use” technology has not occurred. Further, the deemed-export rule does not regulate the mere operation of controlled equipment.

More information is available here: [https://www.bis.doc.gov/index.php/licensing/embassy-faq/faq/34-when-do-i-need-to-apply-for-an-export-license-for-technology-under-the-deemed-export-rule#faq\\_30](https://www.bis.doc.gov/index.php/licensing/embassy-faq/faq/34-when-do-i-need-to-apply-for-an-export-license-for-technology-under-the-deemed-export-rule#faq_30) (Deemed Export FAQs). Deemed exports could occur through such means as a demonstration, oral briefing, or laboratory 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 export regulation, such as publicly available technology.

### **Supercomputers**

A common deemed export question relates to access by persons in the UMA 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 working with encryption software and technology have a particularly complex compliance framework to satisfy. As referenced above, encryption software (as well as associated technology) with symmetric key length exceeding 64 bits generally do 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 and hardware products, it is permissible, while in the U.S., for non-U.S. persons to use any type of mass market encryption software products (covered under 5D992) and encryption hardware covered under 5A002 and 5B002. 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 “Encryption and Export Administration Regulations (EAR)” (<https://www.bis.doc.gov/index.php/encryption-and-export-administration-regulations-ear> (Mar. 2, 2017)) and “Encryption items NOT Subject to

the EAR” (<https://www.bis.doc.gov/index.php/all-articles/223-new-encryption> (Mar. 2, 2017)).

Also, under License Exception ENC, non-U.S. persons who are employees, contractors or interns employed at UMA 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. *See* 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.

With respect to the physical shipments of software, under the EAR License Exception TSU, encryption source code or object code (covered by 5D002) may be exported without a license except to Iran, North Korea, Syria, or Sudan. *See* 15 CFR 740.13. However, determining the applicability of the TSU exception is complex and you should contact ORC for help with the analysis.

Special exemptions apply to teaching encryption techniques. Encryption technology that is publicly available, including technology covered by ECCNs 5E002 and 5E992, are not subject to the EAR. Therefore, publicly known encryption techniques, algorithms, and schemes may be shared and taught to non-U.S. persons within the U.S. (sharing of encryption software is a separate analysis). *See* 15 CFR 734.3(b)(3). Providing encryption technology controlled under 5E002 to students, however, 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 lists of individuals or entities barred or otherwise restricted from entering into certain types of export, trade, and/or financial transactions with U.S. persons. *See, e.g.*, OFAC’s Specially Designated Nationals and Blocked Persons (SDN) List (<https://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/default.aspx>); Nonproliferation Sanctions (<https://www.state.gov/t/isn/c15231.htm>). All collaborative activities must be screened using these lists to ensure that UMA does not engage in a transaction with a barred entity or person. ORC has access to services that compile restricted-party lists from many different Government agencies and can conduct this screening for you.

### **Supplier Classification of Items**

When, in the course of research activities, UMA receives materials from a sponsor and the PI cannot determine whether export controls apply, the ORC 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.

### **Immigration Sponsor Letters**

For Principal Investigators who want to issue a sponsor letter on behalf of a foreign person, the Dean of the College must approve any letters before they are sent. If the letter involves a high-risk discipline or anyone from Country Groups D or E, the letter must be forwarded to the



ORC for vetting and approval. ORC will consult with the Dean, as needed, in making a determination. The high-risk disciplines for UMA are: Engineering, Physics, Astronomy, Polymer Science, Computer Science, and Research with Lasers, Research with Encrypted Software, and Research with Controlled Chemicals, Biological Agents, and Toxins. The list of country groups are located in Suppl. 1 to Part 740 of the EAR. (Available through [ecfr.gov: https://www.ecfr.gov/cgi-bin/ECFR?page=browse](https://www.ecfr.gov/cgi-bin/ECFR?page=browse)). The letter should be accompanied by the foreign person's resume and a copy of his/her recent publication abstracts. The PI is responsible to document activities of all sponsored foreign visitors and be able to provide records to verify such activities upon request.

### **International Travel and Travel Registration**

When traveling abroad, UMA researchers should be familiar with the impact of export control regulations. Researchers need to make sure that any information discussed or items taken out of the U.S. are either not controlled or, if controlled, that an exception to or exclusion from export controls applies or the proper licenses are in place. Researchers, as individuals, and UMA can be held liable for improperly transferring controlled technology. Thus, it is important to review and understand the federal requirements.

To prevent export control violations and address other risks associated with international travel, UMA implemented a policy mandating registration of University-related travel in January 2018. To allow sufficient time for pre-screening of international destinations, individual and institutional collaborators, and information or items being exported, all University-related travel must be registered at least ten (10) days before departure in the UMass System Travel Registry: <https://travelregistry.umasscs.net/index.cfm?FuseAction=Security.LoginWizardStepOne>. Staff from the Office of Research Compliance and International Programs Office review information entered into the travel registry for export control and other risk management purposes.

Prior to discussing technology or making a presentation when traveling, verify that the technology, information, and/or commodity is not export-controlled or qualifies for an exception to or exclusion from export controls. 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 may require a license issued by the Treasury Department. An EAR license may be required as well, depending on whether an export of controlled technology (information) is anticipated.

Exclusions that are relevant for researchers 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 (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 is also considered to be publicly available. (Encryption software with symmetric key length exceeding 64 bits 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. (Encryption software with symmetric key length exceeding 64 bits does not meet this exclusion.)

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

OFAC publishes information to assist securing licenses for travel to embargoed countries. OFAC sanctions program and country information is available here: <https://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx>.

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, you should consider the following questions 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 with you other than those identified as Tools of the Trade under the export regulations?

If the answer to any of these questions is 'yes', contact the ORC to determine how to proceed.

### **Technology Control Plans**

The purpose of a Technology Control Plan (TCP) is to outline procedures used by UMA for protecting information and materials that are subject to export controls. TCPs must be developed and submitted for review and approval for any research that involves export-controlled items, technology, or data. TCPs identify authorized personnel and include physical and IT security plans to protect and control research information from access by unauthorized persons. Once a TCP is in effect, no personnel may be added to that project or facility without the prior approval of ORC. The development of the TCP is a mandatory precursor to an application for a deemed export license or technical assistance agreement. The TCP will also establish what controls will continue upon completion of the project. Once a PI has a TCP in place for his/her office or laboratory, all immigration-sponsor letters and all foreign visitors invited by that PI must be screened by ORC.

### **Identification, Receipt, and Tracking of ITAR-Controlled Items**

A TCP is also required as a means for tracking and monitoring compliance when projects involving ITAR-controlled items, including technical data, are identified. ORC is responsible for oversight and licensing, including technical assistance agreements, of all projects in which defense articles are manufactured or used. 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, as there is no country-by-country analysis as in the EAR regulatory framework.

### **Screening the Customer and Restricted/Prohibited Exports and Transfers**

As an educational and research institution, there may be many types of customers that require screening. For example, sponsors, vendors, visitors, and end-users are screened, depending on the nature of the activity. This screening should occur before the new party is entered into UMass's database. The sponsor/partner list is screened each calendar quarter to ensure the parties remain eligible for transactions.

International students, faculty, and other visitors must report to the International Programs Office (IPO) upon arrival at UMA. IPO must request that students present original visa and passport documents and make copies for student records. IPO must also process the visitor through the Department of Homeland Security's SEVIS database. UMA assumes that students holding valid U.S. visas have been cleared by the U.S. Citizenship and Immigration Services (USCIS).

Visiting scholars from foreign countries are provided sponsor letters which must be approved by the College Dean to support their visa application. Proposed visitors from Country Group D and E countries and visitors to groups or labs within the high-risk disciplines are screened by ORC before issuance of the sponsor letters.

For all physical exports of controlled items, end users are identified and screened to evaluate whether a license is required or any exceptions may apply.

### **Large Equipment Purchases**

In the procurement process, the Purchasing Department should ask vendors to provide the ECCN or USML category, if known, for equipment purchases above \$75,000. This information, if received, is communicated to the PI or manager initiating the procurement for record-keeping and ensuring appropriate use and control of the purchased equipment.

### **Activities with Persons or Entities in OFAC-Sanctioned Countries** (*e.g.*, Cuba, Iran, Sudan, North Korea)

License exceptions and exclusions are critical for academia when research or other projects involve activities in OFAC-sanctioned countries. The scope of the particular sanctions program will dictate the breadth of restricted activities, as well as the severity of attendant penalties and fines. For any transaction proposed for an OFAC-sanctioned country, the export control and the OFAC requirements must be separately analyzed.

## **OFAC AND EAR/ITAR EMBARGOES**

There are a number of countries subject to OFAC sanctions programs. The most widely known include Cuba, Iran, Sudan, Syria, and North Korea, though the complete list may be found here: <https://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx>. Country-specific restrictions apply to these countries.

Interactions with persons and organizations located in OFAC-sanctioned countries come with a great degree of risk and require careful analysis. Some of the sanctions apply to the import of goods and services from OFAC countries as well. Detailed country-by-country information about these trade sanctions is available at the OFAC website noted above.

The analysis of whether a proposed activity would be allowed must be made at the outset because, in the absence of an exception or exclusion, an OFAC license **MUST** be secured from the Treasury Department before initiating any transactions or dealings with those persons (including negotiations for a proposed activity). Only a handful of license exceptions and general licenses are available. Special licenses are seldom issued because there is a general policy of denial of license requests. Further, it may take many months to receive a determination.

#### Cuba, Iran, and Sudan

Comprehensive sanctions are in place against Cuba, Iran, and Sudan. Three exceptions which are helpful for researchers, however, do apply. First, activities which are incident to publishing research articles are permitted with persons in Cuba, Iran, or Sudan and the academic and research institutions which employ them (but no other segment of the Government or other entities). *See* 31 CFR § 515.577 (Cuba), 31 CFR § 560.538 (Iran), 31 CFR § 538.529 (Sudan).

Second, the export of information available in the mass market and which are fully created and in existence as of the date of the transaction, such as published research articles, may also be exported. *See* 31 CFR § 515.206(a)(2) (Cuba), 31 CFR § 560.210(c)(2) (Iran), 31 CFR § 538.212(c)(2) (Sudan).

Third, some exceptions apply to travel. Travel to Iran and Sudan is generally permitted, including payments for expenses ordinarily incident to such travel, including living expenses and buying goods or services for personal use. The project proposed to be undertaken while in the country, however, may require a license.

Travel to Cuba remains highly regulated (other than the rules for travel to visit family in Cuba, which were modified in 2009). Several general licenses, however, are available. One allows travel to Cuba to conduct professional research and/or attend international conferences that are regularly held in other countries. *See* 31 CFR § 515.564. Another OFAC general license allows for travel to Cuba for educational activities. *See* 31 CFR § 515.565. Detailed guidelines for travel to Cuba are available at: <http://www.treasury.gov/resource-center/sanctions/Programs/Pages/cuba.aspx>.

#### Syria, North Korea, and Other OFAC-sanctioned Countries

The trade sanctions against Syria and North Korea are narrower in scope (however, as discussed below, they are treated as embargoed countries for export-control purposes). Other countries subject to lesser OFAC trade sanctions include, for example, Belarus, Burundi, and Zimbabwe. The sanction programs are described on OFAC's website at: <https://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx>.

### **Travel with Laptops and GPS Devices**

A Department of Commerce license may be needed in order to travel with a laptop or any GPS device to an OFAC-sanctioned country.

### **Students and Researchers in the United States**

Different rules apply to participation of students and researchers from OFAC-sanctioned countries in educational or research activities in the United States. Universities may enroll or employ persons who are citizens of Cuba, Iran, or Sudan if they are permanent residents (green card holders) or are present in the U.S. under a valid visa. Some country-specific restrictions on payments, however, may still apply. These matters are addressed by the campus International Programs Office (IPO), which is charged with monitoring the activities of these persons while in the United States and reporting their activities to the Department of Homeland Security. Careful supervision of these persons is required to avoid a “deemed export” under the Department of Commerce regulations (EAR) or Department of State regulations (ITAR). Ordinary license exceptions and exclusions, however, apply to their activities within the United States, such as the fundamental research exclusion.

### **Export Control Laws and Activities with Persons in Embargoed Countries**

Under the EAR, effectively all items that have a potential dual-use (commercial and military) are covered at the very least under a catch-all classification referred to as “EAR 99.” Even EAR 99 items may require a license for export to a person or entity in a Department of Commerce/EAR-embargoed country. These countries include Cuba, Iraq, Iran, North Korea, Russia, parts of Ukraine, and Syria. *See* 15 CFR Part 746. In other words, your working assumption should be that all shipments or travel with goods to an EAR-embargoed country require a license (although a handful of country-specific license exceptions apply). Severe fines and penalties apply to export violations.

This entire framework, however, only applies to items that are “subject to the EAR.” Many exceptions and exclusions (enumerated, in part, in 15 CFR § 734.3(b)) exist. For example, publicly available technology, technology that arises from fundamental research, or information subject to the educational exclusion are NOT subject to the EAR.

Recall, however, from the discussion under “OFAC and EAR/ITAR Embargoes” above, that OFAC sanctions programs may apply—and impose different restrictions—to these countries as well.

Compliance with State Department’s ITAR is more straightforward. ITAR regulations apply only to items (and related technical data) that are specifically designed, developed, configured, adapted, or modified for military applications—defense articles or services. This kind of technical data would most likely arise from a contract or subcontract with a United States national security/defense agency. The State Department has its own separate list of embargoed countries set out at 22 CFR § 126.1. More information is available here:

[http://www.pmdtc.state.gov/embargoed\\_countries/index.html](http://www.pmdtc.state.gov/embargoed_countries/index.html).

In summary, undertaking activities with persons in an OFAC, EAR, or ITAR-embargoed countries (*e.g.*, Cuba, Iran, Sudan, Syria, North Korea, etc.) is fraught with risk and requires extreme care and planning.

## **LICENSING INFORMATION**

No matter how benign an item may appear, it still may require a license to export or release to foreign nations/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 that do not appear on the CCL or USML.

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 subject to the EAR from one foreign country to another foreign country. A re-export also occurs when there is a "release" of technology or software (source code) that is subject to the EAR in one foreign country to a national of another foreign country.

The Commerce Department is responsible for licensing dual-use items. Dual-use items, other than EAR 99 items, are identified on the Commerce Control List (CCL), 15 CFR Part 774, Supplement No. 1. (The State Department is responsible for licensing defense/USML-listed items.)

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

- 1) Are the involved parties U.S. citizens or permanent residents (green card holders)?
- 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 (as defined by EAR or ITAR) 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) Depending on the answers to the above-questions, a license may be required.

If an activity is controlled under export regulations (meaning an exemption or exception does not apply), then a license or other approval is needed from the respective oversight agency. Examples of situations where a license may be required include:

- Research that involves defense, military, weapon, 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;
- 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 or on a restricted-party list.

When exclusions or exceptions do **not** apply or if the transaction involves dealings with a sanctioned person, entity, or country, then a license must be obtained for any actual or deemed 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. *Export Control Classification Number (ECCN)*. Certain items, notably those controlled by multilateral export-control regimes, are on the Commerce Control List (CCL) and are included under a specific ECCN. The ECCN in the CCL provides the reason(s) for control. An item can be 'self-classified' with justification or BIS can assist with classification when necessary. Contact the ORC for assistance. Items subject to the EAR but not listed on the CCL are designated as EAR99. These items generally can be exported without a license, unless the export is to an embargoed country, to a prohibited person, or for a prohibited end-use.
2. *The ultimate destination of the item*. The reasons for control listed in ECCNs on the CCL need to be considered against the country of ultimate destination using the Commerce Country Chart (15 CFR Part 738, Supplement No. 1). The reasons for control, when used in conjunction with the Country Chart, help to determine if a license is required for export to the ultimate destination. If it is determined that your export transaction requires a license, review the EAR (15 CFR Part 740) to determine if any license exceptions apply.
3. *The end-user and end-use for the item*. Even if a license is not required based on the ultimate destination, a license may be required because of the intended end-use or end-user of an item. These are referred to under the regulations as the "General Prohibitions" and are found at Part 736 of the EAR (15 CFR Part 736). There are certain special restrictions that apply to persons (or entities) identified in the EAR, as well as to persons who are involved in weapons-proliferation activities. In most instances, a license is required to export all items subject to the EAR to persons identified in part 744 of the EAR (15 CFR Part 744). There are certain end-uses that are prohibited as well. *Id.* An end-user certification may need to be completed by the end-user to assist in the determination process.

The ORC is the UMA office authorized to submit jurisdiction and classification requests as well as license applications to the Department of Commerce and Department of State. ORC 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 control compliance activities between departments as well as between academic and administrative functions 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 UMA reporting structure is provided below for those areas involved in export control compliance and for scenarios expected to occur at UMA. Specific procedures for each department are outlined in a separate document titled the “Export Control Compliance Program Standard Operating Procedures,” which is developed through the OCECC’s Implementation Committee, comprising representatives from the relevant campus departments.

### **Institutional Commitment to Compliance Oversight**

Compliance is a matter for top management attention and needs adequate resources for full implementation. The Oversight Committee for Export Control Compliance (OCECC) is charged with oversight of the UMA export control compliance program. The Committee's purpose is also to ensure that UMA has the resources necessary to assure compliance with export control and trade sanctions laws and regulations. The members of the Oversight Committee 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 Oversight Committee for Export Control Compliance (OCECC) consists of the Provost and Senior Vice Chancellor for Academic Affairs, the Vice Chancellor for Research and Engagement (VCRE), the Vice Chancellor for Administration and Finance (VCAF), and the Chief Information Officer (CIO). This committee is responsible for oversight of export control matters, including monitoring the effectiveness of these guidelines and, through its Implementation Committee, overseeing the Export Control Compliance Program Standard Operating Procedures.

The Office of the Vice Chancellor for Research & Engagement (VCRE) provides oversight, coordination and administration of export control compliance programs through its Office of Research Compliance (ORC). This office also works with the Academic Affairs and Administration and Finance areas and deans to ensure compliance. Announcements related to export controls are issued by the ORC through the Export Controls page of the UMass Amherst website: <https://www.umass.edu/research/compliance/research-safety-and-security/export-controls>. The Vice Chancellor for Research & Engagement is designated as the empowered official for export license applications and approves acceptance of any project that involves export restrictions.

The Office of Research Compliance (ORC) is the central office with primary responsibility for research compliance functions, including export control compliance, and is responsible for coordinating the implementation of the export control compliance program. ORC staff work with Amherst campus faculty, staff, and students to:

- Adhere to export control regulations;
- Communicate changes in regulations;
- Offer training and coordinate outside export assistance;
- Maintain relevant records for all export control training and other export activities; and
- Provide support for license applications.



ORC conducts outreach, education, training, and advising of members of the UMA community to help ensure export control compliance. The Director of Research Compliance and Assistant Director for Export Control Compliance are empowered officials for export license applications and are responsible for overseeing and implementing the annual review and update of the UMA Export Control Compliance Program Guidelines and the Export Control Compliance Program Standard Operating Procedures (SOPs), conducting periodic program reviews and audits, and assisting with determination of ECCNs. The University's Office of the General Counsel (OGC) is available for assistance with export control compliance, and any necessary input from OGC is coordinated through ORC.

The Office of Grant and Contract Administration (OGCA) vets proposed projects, including Sponsored Research Agreements and Research Services Agreements, with the PI and proposed sponsors to analyze the applicability of export regulations to the proposed activities and coordinates with ORC to address requirements. ORC 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 from embargoed or sanctioned countries. The ORC maintains copies of all export control-related documents, including license applications, policies, forms, guidelines, memoranda, notes, screens, correspondence, contracts, invoices, shipping documents, and other records submitted to ORC for vetting and approval.

OGCA is responsible for all proposal submissions, accepts and administers grant awards, and negotiates contracts and other research-related agreements on behalf of the University. It reports to the Vice Chancellor for Research & Engagement. The OGCA reviews all Requests for Proposals (RFPs) and 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, OGCA 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. UMA policy on the free dissemination of research results prohibits the acceptance of contracts or grants with publication or dissemination restrictions, absent specific authorization from the Office of the VCRE or a designee thereof.

Any proposed contract, grant, or award found by OGCA to contain these restrictions is referred to ORC for further analysis for export control implications. ORC will work with the PI, OGCA, and the sponsor to attempt to negotiate restrictions out. PIs are asked to complete an export control review form or checklist to assist in making an export control assessment. If the restrictions cannot be negotiated out, it is the responsibility of the Vice Chancellor for Research & Engagement to consider whether there is a means for accepting the contract and its potential impact on dissemination of the resulting research results and academic progress of students.

All proposed research projects with foreign sponsors or in foreign countries which otherwise require physical exports are referred to ORC for the same analysis, review, and approval, as well as for end-user screens and licenses. ORC also reviews of the terms and conditions of awards from foreign sponsors for any "anti-boycott" language that might be included.

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 services agreements are submitted to OGCA with a statement of work and a purchase order. If there is any question as to the nature of the work and whether it is export controlled, OGCA works with ORC to conduct a review.

Before new sponsors are accepted into the OGCA database, sponsors are screened against lists of proscribed countries and ineligible parties. This same process is used each calendar quarter to screen the entire list of sponsors.

Environmental Health and Safety (EHS) is under the direction of the VCAF. EHS has a robust and 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. Chemicals and biological agents are subject to many compliance requirements. In fact, most of these materials are classified as dual-use under the CCL. As a result, shipping training and other training sessions include discussion of export controls. EHS is available to assist members of the UMA 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. UMA is committed to ensuring the safe handling, storage and disposal of potentially harmful biohazardous materials for research or instructional projects. The Compliance Coordinator in the Office of Research Compliance oversees and coordinates the work of the IBC. Many of these materials are classified as dual-use under the CCL and IBC training includes information about export controls.

Human Resources is under the direction of the VCAF. Human Resources is authorized to work with ORC and to provide citizenship and nationality information when needed to authorize personnel to work on projects. ORC and OGCA are authorized to have access to HR personnel files to support applications for security clearances.

International Programs Office (IPO) is under the direction of the Provost and is responsible for advising the campus on compliance with immigration regulations for students, exchange visitors, and foreign national visiting faculty and staff. IPO is responsible for processing immigration sponsor letters for proposed foreign visitors to departments.

Purchasing/Accounts Payable is under the direction of the VCAF 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 ECCNs of large equipment purchases. They consult with ORC 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 VCAF and is responsible for reviewing and ensuring compliance for all domestic and international travel. Faculty and staff are encouraged to seek the input of IPO and ORC when planning international travel.

Information Technology is under the direction of the Vice Chancellor for Information Services & Strategy (VCISS) and provides information services and technology support for all UMA employees and students, including computing services, connectivity and information security. Information Technology oversees all data security, electronic mail, and computer policies and helps ORC to develop and implement Technology Control Plans. In addition, it is responsible for developing and maintaining an effective information technology security plan for UMA.

Campus Police. OCECC consults with Campus Police and, as needed, engages the Campus Police in any investigation it may undertake regarding a possible violation or suspected security breach or theft.

Technology Transfer Office (TTO) is under the direction of the VCRE and is responsible for assisting in review of invention disclosures and overseeing the transfer of inventions 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 TTO. From time to time, TTO 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 or having other “red flags”. TTO refers these requests to ORC for export control review and approval.

Deans, Center Directors, and Department Heads provide oversight of their respective departments and research centers to ensure compliance. They assist ORC and the Provost in implementing the UMA export control 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 (PIs) have the best understanding of their research and play the primary role in developing and directing all research projects. PIs, therefore, 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 ORC and OGCA to evaluate technical aspects of export controlled items, technology, or data.

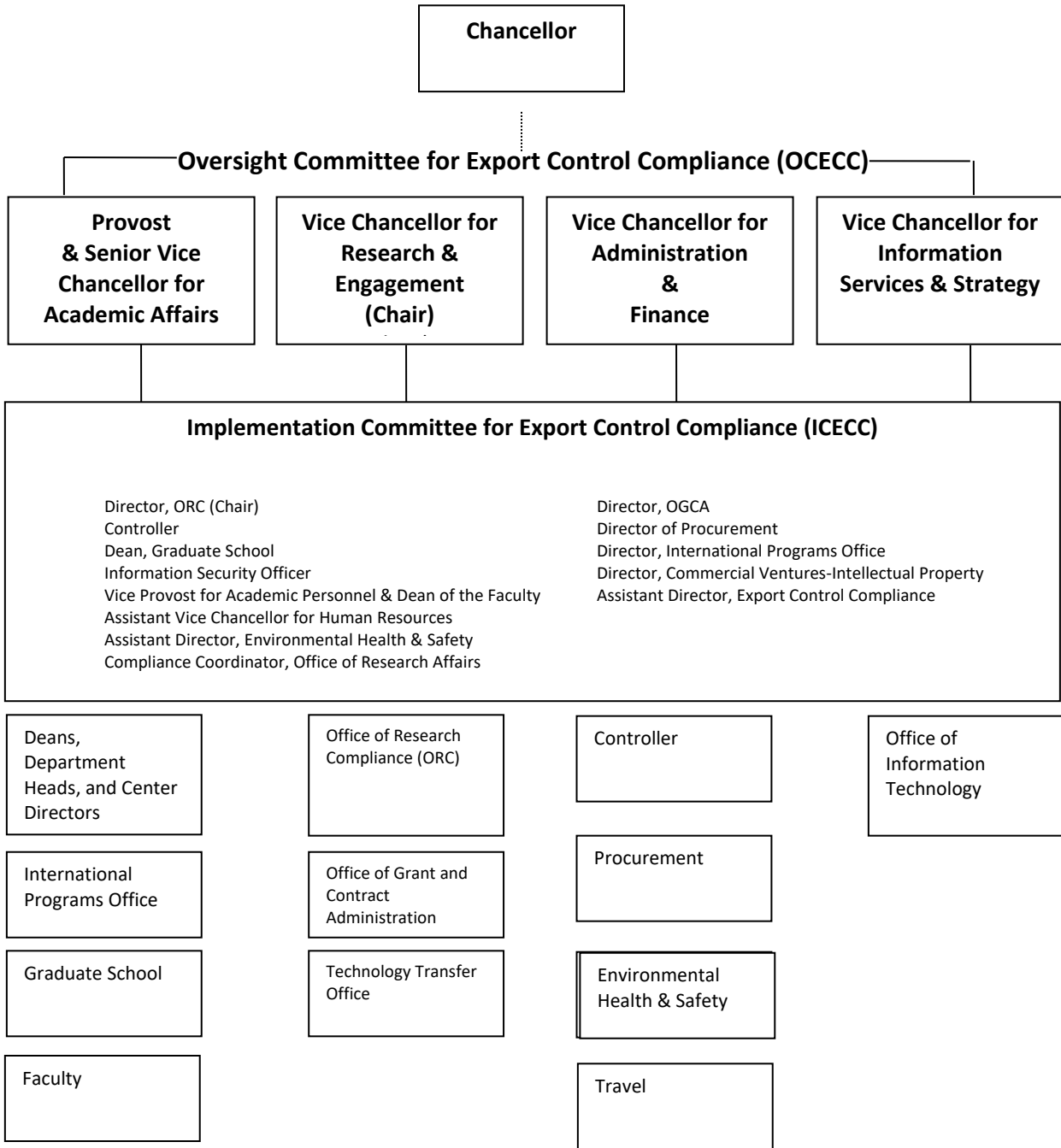
PIs are responsible for the following:

- Reviewing UMA information on export regulations provided on the Export Controls webpage;
- Participating in training and identifying staff and students to attend training;

- Determining whether there may be any export control issues to address before submitting a proposal or beginning any research;
- Communicating with ORC and implementing departments if any export control issues are identified or if any questions arise about export regulations;
- Cooperating with ORC in developing Technology Control Plans (TCPs) and applying for licenses, and following TCPs to ensure compliance with all applicable restriction;
- Adhering strictly to any applicable restrictions and cooperating fully with UMA's efforts to monitor compliance when export control regulations apply;
- Notifying the ORC 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.

Administrative Assistants and Business Managers provide assistance to many departments and faculty throughout UMA. 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 forms, shipments, purchasing, hiring documentation, and maintaining ProCard logs.

# Export Control Compliance Organization Chart



## **RECORD KEEPING**

UMA must comply with the various record keeping requirements of the EAR, ITAR, and related laws and regulations. This is generally (and preferably) done by providing documents to the ORC, but in some instances includes keeping documents locally and providing copies to ORC. For example, the International Programs Office maintains all SEVIS program records, Procurement maintains all records of vendor screens, etc. The export control records that are retained and secured include any licenses, license applications, policies, manuals, forms, guidelines, memoranda, notes, correspondence, screens, contracts, invoices and other financial records, shipping documents, including bills of lading and Shipper's Export Declarations, and Automated Export System (AES) records, records submitted to ORC 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 ORC and include sign-in sheets signed by persons attending, date and location of training, speakers, and the subjects covered. Records are maintained for a period of five years from the expiration date of the authorization or date an exemption/exception is claimed. Thereafter, the records shall be discarded consistent with the UMA record retention policy.

## **EXPORT CONTROL COMPLIANCE PROGRAM REVIEWS AND AUDITS**

Program reviews and audits are designed to systematically review and monitor the effectiveness of the UMA Export Control Compliance Program and ensure compliance with export control laws and regulations. ORC staff will conduct a review of the Export Controls Compliance Program annually. ORC will document the program review in an annual report to the OCECC, which will address the effectiveness of the program and recommend changes to the program and guidelines as necessary. OCECC will meet annually to address ORC's written recommendations and any other issues pertinent to the Export Controls Compliance Program.

OCECC will oversee a comprehensive audit of the Export Controls Compliance Program every five years, and may use a third-party resource to conduct the audit. If ORC staff conduct the audit, they will document the audit procedure, outcomes, and plans for improving the program. OCECC will report to the Chancellor on the results of each five-year audit, including addressing the effectiveness of the Export Control Compliance Program.

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;
- Determining the effectiveness of these guidelines and the controls in place and, if necessary, recommending revisions to improve the effectiveness;
- Monitoring compliance of research projects and departments with export license requirements, technology control plans, and these compliance guidelines; and
- Identifying possible violations.

Audits conducted by the ORC will include, but may not be limited to, the following:

- Verifying that screening is being performed;
- Checking training logs and records;
- Identifying current training needs;
- Verifying appropriate records are being kept;
- Reviewing export control activities of other departments (*e.g.*, OGCA, EHS, IPO);
- Confirming adherence to licenses and TCPs;
- Reporting any identified violations;
- Updating guidelines, procedures, and forms to reflect any regulatory changes; and
- Recommending changes to the program as needed.

### **Guidelines Review**

Each Export Control Compliance Program annual review will include reviewing and updating these guidelines to the extent necessary to reflect any substantive changes to export control laws and regulations.

## **DETECTING AND REPORTING VIOLATIONS**

### **Commitment to Reporting**

An integral part of export control compliance is that employees report suspected violations of export laws and these reports are thoroughly investigated. It is the policy of UMA to voluntarily self-disclose violations as required. Members of the UMA community are expected to contact the ORC or OCECC should they have any questions about the application of export control laws to their research or other activities. UMA faculty, administrators, staff, and students should report any potential violations directly to the ORC or OCECC. No employee shall be punished for reporting what was reasonably believed to be a violation of any export control law or regulation.

### **Investigation**

Once an alleged violation has been reported, an investigation will be initiated after consultation between the ORC and OCECC to determine the credibility of the allegation and an appropriate response. If the allegation merits further fact finding and investigation, the ORC will work with the appropriate parties to conduct a thorough investigation. ORC will provide the results of its investigation to the OCECC to consider further action, including notification of the appropriate government agency and 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 or state agency, immediately contact the Office of the General Counsel for appropriate and timely response. Likewise, if a Federal or state agency representative arrives on campus, immediately contact the Office of the General Counsel. You shall not interfere with or obstruct any Federal or state agent or law enforcement officer in the performance of his or her duties.

## UMA ONLINE RESOURCES

<https://www.umass.edu/research/compliance/research-safety-and-security/export-controls>