



Examination Overview	# Questions	Time	Passing score																
American Board of Toxicology	300	9 hour	Scaled																
American Board of Veterinary Toxicology	400	11hr, 1d	70%	About 50% on general toxicology															
Japanese Society of Toxicology	200	8 hour	70%																
<b>EUROTOX</b>																			
Netherlands																			
Germany																			
UK																			
Finland																			
Switzerland																			
France																			
Italy																			
Austria																			
Spain																			
Norway																			
Denmark																			
Croatia																			
<b>JUST EXAMINATION TOPICS</b>																			
1) Adverse effects of chemicals (25%): Metals, organic solvents, pesticides, gases, dusts, industrial chemicals, radioactive compounds, plant poisons, animal poisons, food additives, drugs, cosmetics, biotechnology products.				<b>ATS Evaluation Record</b>  Education - 20 points Professional Experience - 40 points Demonstration of Professional Recognition - 40 points  Nominee must receive a minimum of 70 points to qualify as a fellow in the ATS as judged by a peer review process by the Board of Directors.															
2) Manifestation of toxicity/Toxicity testings (40%): General toxicity (including clinical tests and their significance), general pharmacology, mutagenicity, carcinogenicity, reproductive and developmental toxicity, respiratory organ toxicity (including inhalation toxicity), neuro-behavioral toxicity, immunotoxicity, skin/mucosa toxicity (including gastro-intestinal toxicity), blood/hematopoiesis toxicity, cardiovascular toxicity, hepatotoxicity, nephrotoxicity, endocrine toxicity, motor apparatus toxicity (including bones/muscles/joints), sensory organ toxicity (including ophthalmic toxicity), experimental method of toxicity (including experimental animals).																			
3) Principle of toxicology/Applied toxicology (35%) General principle, influential factors in toxicity, toxicokinetics, pharmacokinetics, mode of toxicological manifestation, risk assessment, environmental toxicology, epidemiology, clinical toxicology, biostatistics, regulatory toxicology.																			
<b>ABT EXAMINATION TOPICS</b>																			
I. Toxicity of Agents: metals; organic solvents; pesticides; inhaled gases, dusts, aerosols, etc.; natural toxins; industrial chemicals; drugs and cosmetics; and food additives.																			
II. Organ Systems and Effects: mutagenesis, carcinogenesis, developmental toxicology; reproductive toxicology; inhalation toxicology; neurobehavioral toxicology; immunological toxicology; cutaneous toxicity, ocular toxicity, hematopoietic toxicity, hepatic toxicity, renal toxicity; and endocrine-related toxicities.																			
III. General Principles and Applied Toxicology: general principles; toxicokinetics; factors influencing toxicity; risk assessments; epidemiology and biostatistics; regulatory toxicology; environmental toxicology; industrial and occupational toxicology; and forensic and clinical toxicology.																			

<b>Swiss Society of Pharmacology and Toxicology, Toxicology Section</b>
<a href="http://www.swisstox.ethz.ch/">http://www.swisstox.ethz.ch/</a>
<b>British Toxicology Society</b>
Academy of Toxicological Sciences
<b>Danish Society of Pharmacology and Toxicology</b>
<b>American Board of Toxicology</b>
<a href="http://www.abtox.org/">http://www.abtox.org/</a>
<b>Academy of Toxicological Sciences</b>
<a href="http://www.AcadTox.com/">http://www.AcadTox.com/</a>
<b>American Board of Veterinary Toxicology</b>
<a href="http://www.abvt.org/">http://www.abvt.org/</a>
<b>EUROTOX</b>
factors influencing toxicity
<b>French Society of Toxicology</b>
<b>Japanese Society of Toxicology</b>
<a href="http://www.jsst.or.jp/jsts/index-e.html">http://www.jsst.or.jp/jsts/index-e.html</a>
<b>Korean Society of Toxicology</b>
<b>Finnish Society of Toxicology</b>
Academy of Toxicological Sciences
<b>German Society of Experimental &amp; Clinical Pharmacology &amp; Toxicology</b>
<a href="http://www.toxikologie.de">http://www.toxikologie.de</a>
<b>Italian Society of Toxicology</b>
<a href="http://user.unimi.it/~spharm/sit/SIHome.html">http://user.unimi.it/~spharm/sit/SIHome.html</a>
<b>Netherlands Society of Toxicology</b>
<a href="http://www.tcdd.nl/">http://www.tcdd.nl/</a>
<b>Norwegian Society of Pharmacology and Toxicology, Toxicology Section</b>
<a href="http://www.folkehelse.no">http://www.folkehelse.no</a>
<b>Spanish Association of Toxicology</b>
<a href="http://tox.umh.es">http://tox.umh.es</a>

Numbers

Recognizing Body	Registrants/diplomates	Countries	#
<b>EUROTOX</b>	<b>891</b>	Netherlands	282
<b>American Board of Toxicology</b>	<b>1751</b>	Germany	
<b>Academy of Toxicological Sciences</b>	<b>176</b>	UK	
<b>American Board of Veterinary Toxicology</b>	<b>106</b>	Finland	
<b>Japanese Society of Toxicology</b>	<b>170</b>	Switzerland	152
<b>Korean Board of Toxicology</b>	<b>83</b>	France	125
		Italy	
		Austria	
		Spain	
		Norway	
		Denmark	
		Croatia	

Academy of Toxicological Sciences

Evaluation by recognized/certified experts, based on score using the following criteria:

Education (degrees, postdoctoral training, university or other continuing education)

Professional Experience (publications, career advancement, editorial responsibilities)

Demonstration of Professional Recognition (society offices, committees, international involvement, commissions, invited lectures, awards, honors, etc.)

The Academy of Toxicological Sciences

Certification Evaluation

Education, professional experience, and professional recognition of applicants are evaluated by correlating defined criteria with a corresponding point system. A minimum number of points must be attained in each area. When totaled, 70 points out of a possible 100, with the minimum in each area being met, are required for fellowship. Area and point breakdowns are:

EVALUATION AREAS WITH ASSIGNED POINTS

AREA	MAXIMUM/MINIMUM POINTS
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Education	20/9
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Degree in relevant field (only highest degree assigned points)

Ph.D. or equivalent doctoral degree: 14 points

Master's degree: 8 points

A.B., B.A., or B.S. degree: 6 points

Postdoctoral research training (1 point per year; no credit for internship or residency unless it is research-oriented): up to 3 points  
 University-sponsored courses for academic credit beyond terminal degree or continuing education courses related to toxicology (1 point per 50 contact hours): up to 3 points

Professional Experience	40/20
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Publications

Five (5) best peer-reviewed journal articles in toxicology: up to 10 points

Other original research in peer-reviewed journals: up to 5 points

Major reviews and book chapters: in toxicology: up to 5 points

Career advancement (provide details and chronology): up to 15 points

Editorial responsibilities (editor, 1 point per year; section editor, 0.75 points per

year; editorial board, 0.5 points per year; manuscript review, 0.5 points/year): up to 5 points

Professional Recognition	40/25
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Contributions to toxicological sciences (participation in governmental, academic, and industrial committees, panels, organizations, and so forth--see specific instructions for details): up to 25 points

Participation on other scientific societies: up to 5 points

Invited major plenary lectures and/or presentations: up to 5 points

Scientific awards, citations, and professional honors: up to 5 points

Test subjects

ABT	JST	ABVT	
aerosols	animals	antidotes	
British Toxicology Society	biostatistics	biotoxins	
Academy of Toxicological Sciences	biotechnology		
clinical	carcinogenesis	basic concepts	
cosmetics	cardiovascular	definitions	
cutaneous	clinical	dose-response	
developmental	cosmetics	drugs	
Academy of Toxicological Sciences	cutaneous	environmental residues	
dusts	developmental	feed additives	
endocrine	drugs	inorganics	
environmental	dusts	metabolism	
epidemiology	endocrine	organics	
factors influencing toxicity	environmental	radiation	
French Society of Toxicology	epidemiology	safety testing	
forensic	experimental methods	Poisonous Plants/Natural Toxins	
general principles	factors influencing toxicity	Regulatory	
hematopoietic	food additives	Residue	
hepatic	gases	study design	
immunological	gastrointestinal	toxicokinetics	
industrial	general principles	pharmaceutical toxicity	
Academy of Toxicological Sciences	hematopoietic	pharmaceutical testing methods	
inhaled gases	hepatic	organ system toxicity	
metals	immunotoxicity	metals	
Italian Society of Toxicology	industrial chemicals	environmental toxicants	
natural toxins	mechanisms	Clinical veterinary	
Netherlands Society of Toxicology	metals	specific animal toxicants	
occupational	motor systems	diagnosis	
ocular	mutagenicity	clinical management	
organic solvents	neurobehavioral	principals of disease	
pesticides	ocular		
regulatory	organic solvents		
renal	pesticides		
risk assessment	pharmacology		
toxicokinetics	plants		
	radioactive compounds		
	regulatory		
	renal		
	reproductive		
	respiratory		
	risk assessment		
	sensory		
	toxicokinetics		



- Number of Registered Toxicologists is 125 including 15 from academia,
- Qualifications
  - \* Any background is acceptable followed by Post graduation in Toxicology and or PhD in Toxicology; MD Thesis, Pharmacist Thesis, VMD Thesis with a speciality are acceptable.
  - \* From the data of obtention of the last diploma or thesis 5 years of experience and practice are required
  - \* 2 or 3 reference persons are now required who can acknowledge the competence of the candidate.
  - \* All specialities are equally accepted
- Be a member of EUROTOX or IUTOX
- A court report is needed, (anyone who has been condemned will not be registered by our commission)
- All documents given in the file for evaluation of expertise are carefully checked (Diplomas should wear an official label of conformity to the original (several faults 2 to 3 have been found)
- The grandfather Toxicologist clause has not been used
- The registration may be cancelled if something wrong is discovered afterwards.
- The registration is valid for 5 years. The registered toxicologist has to apply again and prove he or she is still active. if not he or she will be out of the list.
- The fees for registration are about 70 US \$ not reimbursed even if the application is rejected.

## Benefits

ABT diplomates participate in all aspects of the profession of toxicology including: the design and interpretation of safety studies for product development; review and interpretation of such studies for regulatory compliance; basic and applied research into toxic effects, mechanisms of toxic action, toxicokinetics and toxicodynamics; and education of undergraduates, professional and graduate students and the public in the science of toxicology through courses, legal cases and media interactions.

While the majority practice in the USA, ABT diplomates are found worldwide, including Europe and Australia. The acceptance of ABT certification as a qualification for membership by the national registries of several European countries, and thus by Eurotox, demonstrates ABT's leadership role in the certification of toxicologists. ABT considers periodic recertification of diplomates as essential to maintaining high standards of professional competence. Recertification is conducted at five year intervals and requires demonstration of continuing education and the active practice of toxicology, as well as an examination.

The following benefits of ABT certification should be considered by all toxicologists and their employers.

### Benefits to Toxicologists

ABT certification recognizes broad expertise in general toxicology for those with formal training in toxicology, as well as those trained in other related disciplines.

ABT certification provides personal satisfaction and intellectual stimulation.

ABT certification often offers an advantage in the job market and career development.

ABT certification enhances credibility in consulting and legal testimony.

### Benefits to Employers

ABT certification provides an objective demonstration of a toxicologist's breadth and currency of knowledge and supports scientific credibility.

Certification by the ABT facilitates access to other certified colleagues who can provide expertise in diverse areas.

ABT certification is recognized by the national registries in several European countries, and thus, by the EUROTOX Registry

### Benefits to Society

The ABT certification is recognized as the standard for competence in general toxicology based on demonstration of appropriate educational background, active practice of toxicology and examination.

ABT diplomates are required to demonstrate currency with respect to new developments in toxicology through recertification at 5 year intervals, thus, providing timeliness in the assessment of toxicological issues of concern to society.

ABT's certification process is recognized world-wide, thus providing a consistent international standard of competence and expertise on toxicology issues.