

**Worcester Polytechnic Institute
Proposals Submitted by Department (FY 2009)**

Date: **September 2008**

Fiscal Year: **2008-2009**

	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Cumulative
Biology and Biotechnology	4	4											8
	3,962,154	1,472,774											5,434,928
Biomedical Engineering	2		2										4
	579,137		420,394										999,531
Bioengineering Institute		1											1
		150,000											150,000
Civil and Envir Engr	1		2										3
	139,951		386,053										526,004
Chemistry and Biochemistry	1		1										2
	786,119		264,205										1,050,324
Chemical Engineering			1										1
			6,114										6,114
Computer Science	2	2	2										6
	637,144	659,904	103,394										1,400,442
Electrical and Computer Engr	5	3	5										13
	1,773,802	415,718	1,100,678										3,290,198
Fire Protection Engineering	2	1	4										7
	515,135	313,261	584,811										1,413,207
Humanities and Arts	1	1											2
	417,540	221,355											638,895
Interdisciplinary and Global	1	3											4
	6,500	376,678											383,178
Mathematical Science			1										1
			265,000										265,000
Mechanical Engineering		6	15										21
		3,087,303	2,470,816										5,558,119
Management													0
													0
Social Science & Policy Studies		2											2
		252,848											252,848
Physics	1	1	1										3
	275,628	285,366	299,950										860,944
Other	1		2										3
	9,109		103,852										112,961
SUBTOTALS	21	24	36	0	0	0	0	0	0	0	0	0	81
	\$9,102,219	\$7,235,207	\$6,005,267	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,342,693
Add: Earmarks													0
													0
TOTALS	21	24	36	0	0	0	0	0	0	0	0	0	81
	\$9,102,219	\$7,235,207	\$6,005,267	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,342,693

10/07/08 kr

**Worcester Polytechnic Institute
Proposals Submitted by Department (FY 2008)**

Date: **September 2008**

Fiscal Year: **2007-2008**

	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Cumulative
Biology and Biotechnology	1		3										4
	33,272		446,967										480,239
Biomedical Engineering	2	1	1										4
	885,949	16,518	296,274										1,198,741
Bioengineering Institute		1	1										2
		81,944	149,971										231,915
Civil and Envir Engr			3										3
			443,391										443,391
Chemistry and Biochemistry	1	1											2
	1,156,495	60,005											1,216,500
Chemical Engineering	4												4
	1,369,614												1,369,614
Computer Science	4	1	2										7
	2,921,249	98,247	491,945										3,511,441
Electrical and Computer Engr	2	1	2										5
	854,359	44,912	109,127										1,008,398
Fire Protection Engineering	1	1	1										3
	479,095	599,640	19,867										1,098,602
Humanities and Arts													0
													0
Interdisciplinary and Global		2											2
		166,573											166,573
Mathematical Science	2		1										3
	1,476,903		62,712										1,539,615
Mechanical Engineering	7	1	6										14
	2,489,649	73,643	1,032,447										3,595,739
Management			1										1
			69,983										69,983
Social Science & Policy Studies			1										1
			50,912										50,912
Physics		1											1
		89,998											89,998
Other													0
													0
SUBTOTALS	24	10	22	0	0	0	0	0	0	0	0	0	56
	\$11,666,585	\$1,231,480	\$3,173,596	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,071,661
Add: Earmarks													0
													0
TOTALS	24	10	22	0	0	0	0	0	0	0	0	0	56
	\$11,666,585	\$1,231,480	\$3,173,596	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,071,661

10/06/08 kr

Worcester Polytechnic Institute
Proposals Submitted by Department (12 Month Report Through September 2008)

Date: **September 2008**

Fiscal Year: **2008-2009**

10/07/08 kr

	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Cumulative
Biology and Biotechnology	2	2		5	2	3	1	1	4	4	4		28
	889,027	66,907		1,154,895	302,520	267,789	30,029	640,952	944,176	3,962,154	1,472,774		9,731,223
Biomedical Engineering	2	2		3	1	1	3		6	2		2	22
	411,660	583,409		530,527	2,000	235,800	241,399		864,223	579,137		420,394	3,868,549
Bioengineering Institute	1	1				1					1		4
	711,868	800,350				25,000					150,000		1,687,218
Civil and Envir Engr	2	2	1		5	1	2	3	1	1		2	20
	236,275	348,125	74,916		943,450	243,132	365,809	216,337	26,953	139,951		386,053	2,981,001
Chemistry and Biochemistry				1				2	3	1		1	8
				90,000				846,754	2,206,455	786,119		264,205	4,193,533
Chemical Engineering	2	3			6	1		3	2			1	18
	1,507,787	315,890			1,503,718	33,514		453,359	479,532			6,114	4,299,914
Computer Science	1	4	8	6		5	1	4	3	2	2	2	38
	5,708	1,943,701	3,551,023	5,648,628		12,761,540	1,499,850	1,060,535	1,419,176	637,144	659,904	103,394	29,290,603
Electrical and Computer Engr	1		1	1	1	9		2		5	3	5	28
	414,697		328,714	42,936	375,805	2,259,278		115,229		1,773,802	415,718	1,100,678	6,826,857
Fire Protection Engineering	1				2	1		1		2	1	4	12
	179,467				146,386	47,822		1,533,121		515,135	313,261	584,811	3,320,003
Humanities and Arts										1	1		2
										417,540	221,355		638,895
Interdisciplinary and Global								1		1	3		5
								149,830		6,500	376,678		533,008
Mathematical Science	2	2	1	4	2		1	1	3			1	17
	957,434	676,245	296,715	975,421	1,076,325		599,399	759,434	156,116			265,000	5,762,089
Mechanical Engineering	7	1	1	5	4	7	3	6	8		6	15	63
	2,660,889	13,050	334,152	1,089,511	1,062,162	772,407	2,531,471	1,594,635	1,347,305		3,087,303	2,470,816	16,963,701
Management	2			1	1			1	1				6
	444,991			497,035	749,985			50,000	40,502				1,782,513
Social Science & Policy Studies											2		2
											252,848		252,848
Physics	2	3	1	1	4	1	1		2	1	1	1	18
	560,764	689,084	512,179	233,194	646,050	31,168	11,250		119,870	275,628	285,366	299,950	3,664,503
Other	1					1	1			1		2	6
	14,000					30,000	10,000			9,109		103,852	166,961
SUBTOTALS	26	20	13	27	28	31	13	25	33	21	24	36	297
	\$8,994,567	\$5,436,761	\$5,097,699	\$10,262,147	\$6,808,401	\$16,707,450	\$5,289,207	\$7,420,186	\$7,604,308	\$9,102,219	\$7,235,207	\$6,005,267	\$95,963,419
Add: Earmarks					2								2
					1,708,000								1,708,000
TOTALS	26	20	13	27	30	31	13	25	33	21	24	36	299
	\$8,994,567	\$5,436,761	\$5,097,699	\$10,262,147	\$8,516,401	\$16,707,450	\$5,289,207	\$7,420,186	\$7,604,308	\$9,102,219	\$7,235,207	\$6,005,267	\$97,671,419


**Worcester Polytechnic Institute Report of Proposals Submitted
September 2008**

Department	Principal Investigator	Co-PI	Project Title	Sponsor	Prime Sponsor (if Sub)	Program Type	Amount Requested	Cost Sharing	Voluntary Uncommitted CS	Proposal #
Academic Affairs	Cyr, M.	Koleci, C.	Building a Better Science and Technology/Engineering Background	The Commonwealth of Massachusetts	DoEd	Education/Training	94,852	0		06178s1
	Cyr, M.		The Massachusetts Technician Education Collaborative (Mass-Tech)	Quinsigamond Community College	NSF	Research	9,000	0		08053s1
Subtotal: 2	Count: 2						103,852	0	0	
Biomedical Engineering	Gaudette, G.		The Use of Veritas as a Cardiac Patch	Synovis Life Technologies		Research	16,488	3,587		07125s1
	Gaudette, G.	Pins, G., Rolle, M.	Microthread-Based Delivery of Human Mesenchymal Stem Cells to Infarcted Hearts	NIH		Research	403,906	0	17,987	9061
Subtotal: 2							420,394	3,587	17,987	
Chemical Engineering	DiBiasio, D.		Analysis of Green Building Technologies and Research Priorities	EPA		Education/Training	6,114	0		9058
Subtotal: 1							6,114	0	0	
Chemistry and Biochemistry	Yu, W.		Magnetic Iron Oxide Nanoparticle Microfluidics for High Efficient Capture, Separation and Concentration of Rare Circulating Tumor Cells	NSF		Research	264,205	0		9073
Subtotal: 1							264,205	0	0	
Civil and Environmental Engineering	Mallick, R.		Green Engineering Pavements	NSF		Research	303,170	0	17,122	9070
	Plummer, J.		Virus: A Potential Indicator of Human Enteric Viruses in Source and Drinking Waters	University of Wisconsin-Madison	NSF	Research	82,883	0		9067
Subtotal: 2							386,053	0	17,122	
Computer Science	Sarkozy, G.		Discrete Extremal Problems	NSF		Research	91,394	0		9060
	Ward, M.	Rundensteiner, E.	REU Supplement, III+COR: Small: Managing Discoveries in Visual Analytics	NSF		Research	12,000	0		08101s1
Subtotal: 2							103,394	0	0	
Electrical and Computer Eng'g.	Duckworth, J.	Cyganski, D.	Robotic Convoy Experiment (RCX) Support for Micro-beacon Tracking of Autonomous Systems (MTAS)	Honeywell Aerospace	DOD	Research	137,688	0	14,204	9037
	Duckworth, J.	Cyganski, D.	Precision Personnel Location (PPL) Research Project	Constellation Software Engineering Corporation	NASA	Research	50,000	0	8,352	9049
	Ludwig, R.	Sullivan, J.	MR Microwave Absorption and Tomography Imaging	Dartmouth College	NIH	Research	313,906	0		07052s1
	Sunar, B.		Improving Snow3G and ECC with the Intel Westmere Instruction Set	Intel Corporation		Research	44,234	0		08030s1

**Worcester Polytechnic Institute Report of Proposals Submitted
September 2008**

	Wyglinski, A.	Huang, X., Klein, A., Brown, D., Lou, W.	II-NEW: Software-defined Wireless Innovation Flexible Test-bed	NSF		Research	554,850	0	24,430	9062
Subtotal: 5							1,100,678	0	46,986	
Fire Protection Eng'g.	Meacham, B.	Dembsey, N.	Rail Vehicle Fire Hazard Guidance	DHS		Research	199,903	0		9069
	Rangwala, A.	Rangwala, A., MacDonald, J.	Experimental Determination of Portable Gasoline Container Vapor Phase Flammability	ASTM International		Research	75,344	0		9068
	Rangwala, A.	Huang, X., Klein, A.	3D Velocity Measurement of Non-Isothermal Turbulent Flows	NSF		Research	295,804	0	34,179	9063
	Rangwala, A.		Material Flammability Using a B Number	Schirmer Engineering		Research	13,760	0		9071
Subtotal: 4						584,811	0	34,179		
Mathematical Sciences	Larsen, C.		FRG Collaborative Proposal: Multiscale Fracture	NSF		Research	265,000	0		9072
Subtotal: 1						265,000	0	0		
Mechanical Engineering	Apelian, D.		Center for Materials Resource Recovery and Recyclability	NSF		Research	9,968	0	0	9074
	Blandino, J.		Hollow Cathode Temperature Measurements and Life Estimation	Busek, Co.	NASA	Research	19,627	0		9038
	Blandino, J.	Gatsonis, N.	Experimental and Computational Investigation of Dust Interactions in a Partially-Ionized Plasma	NSF		Research	304,889	0	31,948	9064
	Brown, C.		Special Problems in Grinding	Supfina		Research	25,000	0	4,873	9047
	Brown, C.		Resonance Avoiding Speed Program	Moscow Mills	Air Force	Research	20,999	0		9059
	Brown, C.		Special Problems in CNC Machining	Metso, Inc.		Research	24,445	0	4,873	9048
	Demetriou, M.	Gatsonis, N.	Model-based Localization and State Estimation of a Moving Gas Source Using a Mobile Sensing Robot	NSF		Research	509,207	0	54,570	9066
	Lados, D.		Fatigue Crack Propagation Mechanisms in Cold Spray Materials for U.S. Army Applications	Army		Research	284,084	0		9065
	Olinger, D.	Tryggvason, G.	An Integrated Study of Floating Wind Turbines	NSF		Research	319,788	0	24,556	9050
	Rong, Y.	Zhou, S., Zeng, A.	REU Site: REU International Senior Project Center	NSF		Education/Training	300,000	0		9053
	Tryggvason, G.		Collaborative Research: Fuel Droplet Disruption under Locally Supersonic Conditions	NSF		Research	160,513	0		9056
	Tryggvason, G.		Collaborative Research: Micro-Macro Modeling for Turbulent Cavitating Flows	NSF		Research	138,207	0		9046

**Worcester Polytechnic Institute Report of Proposals Submitted
September 2008**

	Tryggvason, G.		Predicting and Controlling Forced Nucleate Boiling in Microgravity	NASA		Research	307,297	0		9054
	Tryggvason, G.		Applications of Hydrofoil with Leading Edge Protuberances	California State University Northridge	Navy	Education/Training	42,150	0		9055
	Van De Ven, J.		Hydraulic Dynamometer	National Fluid Power Association		Education/Training	4,642	0		9051
Subtotal: 15							2,470,816	0	120,820	
Physics	Burnham, N.		Self-Affine Fractal Analysis of Lotus-Effect Surfaces to Determine the Role of Nanoscale Roughness in the Adhesion and Wetting of Micro- and Nano-Devices	NSF		Research	299,950	0		9052
Subtotal: 1							299,950	0	0	
 Total: 36							6,005,267	3,587	237,094	

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Awards Received by Department (FY 2009)**

Date: **September 2008**

Fiscal Year: **2008-2009**

	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Cumulative
Biology and Biotechnology	1 293,745	2 21,269	1 12,289										4 327,303
Biomedical Engineering	2 164,980	1 2,000											3 166,980
Bioengineering Institute		1 150,000											1 150,000
Civil and Envir Engr													0 0
Chemistry and Biochemistry	1 169,933												1 169,933
Chemical Engineering	2 278,341		1 128,000										3 406,341
Computer Science	3 777,475	4 514,681											7 1,292,156
Electrical and Computer Engr		3 343,814	4 648,209										7 992,023
Fire Protection Engineering	3 247,099												3 247,099
Humanities and Arts													0 0
Interdisciplinary and Global		2 42,475											2 42,475
Mathematical Science		2 361,037											2 361,037
Mechanical Engineering	3 132,367		4 199,600										7 331,967
Management		1 7,000	1 749,985										2 756,985
Social Science & Policy Studies													0 0
Physics		1 233,194	1 53,594										2 286,788
Other			1 9,000										1 9,000
SUBTOTALS	15 \$2,063,940	17 \$1,675,470	13 \$1,800,677	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	45 \$5,540,087
Add: Earmarks													0 \$0
TOTALS	15 \$2,063,940	17 \$1,675,470	13 \$1,800,677	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	45 \$5,540,087

**Worcester Polytechnic Institute
Awards Received by Department (FY 2008)**

Date: **September 2008**

Fiscal Year: **2007-2008**

	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Cumulative
<i>Biology and Biotechnology</i>													0
													0
<i>Biomedical Engineering</i>		2											2
		223,880											223,880
<i>Bioengineering Institute</i>													0
													0
<i>Civil and Envir Engr</i>		1	1										2
		61,960	10,125										72,085
<i>Chemistry and Biochemistry</i>		1											1
		60,005											60,005
<i>Chemical Engineering</i>	2	1											3
	284,900	380,048											664,948
<i>Computer Science</i>	2	1	1										4
	572,896	13,500	19,500										605,896
<i>Electrical and Computer Engr</i>	2	3	1										6
	220,926	1,275,169	79,127										1,575,222
<i>Fire Protection Engineering</i>													0
													0
<i>Humanities and Arts</i>													0
													0
<i>Interdisciplinary and Global</i>	1	1											2
	60,733	6,000											66,733
<i>Mathematical Science</i>		2											2
		155,204											155,204
<i>Mechanical Engineering</i>	3	1	4										8
	183,071	60,000	298,900										541,971
<i>Management</i>													0
													0
<i>Social Science & Policy Studies</i>		1											1
		675,888											675,888
<i>Physics</i>		2											2
		210,000											210,000
<i>Other</i>	1		4										5
	66,212		842,525										908,737
SUBTOTALS	11	16	11	0	0	0	0	0	0	0	0	0	38
	\$1,388,738	\$3,121,654	\$1,250,177	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,760,569
Add: Earmarks			1										1
			839,000										\$839,000
TOTALS	11	16	12	0	0	0	0	0	0	0	0	0	39
	\$1,388,738	\$3,121,654	\$2,089,177	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,599,569

Worcester Polytechnic Institute
Awards Received by Department (12 Month Report Through September 2008)

Date: **September 2008**

Fiscal Year: **2008-2009**

	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Cumulative
Biology and Biotechnology				1	1	1	2	1	1	1	2	1	11
				212,112	74,237	295,385	60,000	122,231	6,125	293,745	21,269	12,289	1,097,393
Biomedical Engineering			1	1	1				2	2	1		8
			59,299	2,191	24,527				130,000	164,980	2,000		382,997
Bioengineering Institute											1		1
											150,000		150,000
Civil and Envir Engr							1	1					2
							88,372	150,000					238,372
Chemistry and Biochemistry					1		1			1			3
					55,646		180,000			169,933			405,579
Chemical Engineering			1	3	1	1		2	1	2		1	12
			10,000	256,615	49,936	5,000		475,001	33,514	278,341		128,000	1,236,407
Computer Science	2	1		1	1	2	1	1	3	3	4		19
	176,863	95,492		15,000	25,000	413,731	58,635	122,785	380,437	777,475	514,681		2,580,099
Electrical and Computer Engr	2			3	1		1	2	3		3	4	19
	51,000			223,889	42,936		11,980	112,000	346,479		343,814	648,209	1,780,307
Fire Protection Engineering	1				1	1		1		3			7
	282,517				19,867	14,000		7,515		247,099			570,998
Humanities and Arts													0
													0
Interdisciplinary and Global											2		2
											42,475		42,475
Mathematical Science	1				1	2	1				2		7
	37,321				30,109	450,528	62,712				361,037		941,707
Mechanical Engineering	1	1	4	3	1	1		2	3	3		4	23
	107,000	15,000	169,482	173,051	34,000	70,000		10,000	108,844	132,367		199,600	1,019,344
Management									1		1	1	3
									87,000		7,000	749,985	843,985
Social Science & Policy Studies													0
													0
Physics		1		1	1	1		1	2		1	1	9
		30,001		29,665	59,997	31,168		7,615	35,625		233,194	53,594	480,859
Other	1						1		1			1	4
	14,000						1,000		69,993			9,000	93,993
SUBTOTALS	8	3	6	13	10	9	8	11	17	15	17	13	130
	\$668,701	\$140,493	\$238,781	\$912,523	\$416,255	\$1,279,812	\$462,699	\$1,007,147	\$1,198,017	\$2,063,940	\$1,675,470	\$1,800,677	\$11,864,515
Add: Earmarks							1		1				2
							\$848,000		\$860,000				\$1,708,000
TOTALS	8	3	6	13	10	9	9	11	18	15	17	13	132
	\$668,701	\$140,493	\$238,781	\$912,523	\$416,255	\$1,279,812	\$1,310,699	\$1,007,147	\$2,058,017	\$2,063,940	\$1,675,470	\$1,800,677	\$13,572,515

**Worcester Polytechnic Institute Report of Awards Received
September 2008**

Department	Principal Investigator	Co-PI	Project Title	Sponsor	Prime Sponsor (if Sub)	Action Type	Amount Awarded	Cost Sharing	Voluntary Uncommitted CS	Program Type	Proposal #
Academic Affairs	Cyr, M.		The Massachusetts Technician Education Collaborative (Mass-Tec)	Quinsigamond Community College		Con't.	9,000	0		Education/ Training	8053
Subtotal: 1							9,000	0	0		
Biology and Biotechnology	DiIorio, A.		Fermentation and Purification of Kunitz Domain Proteins	Dyax Corporation		New	12,289	0		Other	9036
Subtotal: 1							12,289	0	0		
Chemical Engineering	Camesano, T.		Polymer Multilayers for Non-Mechanical Closures Application	Natick Soldier Center		New	128,000	0		Research	8245
Subtotal: 1							128,000	0	0		
Electrical and Computer Eng'g.	Duckworth, J.	Cyganski, D.	Testing and Evaluation of First Responder Indoor Location Technology	Army		New	433,879	0	34,746	Research	9005
	Ludwig, R.	Sullivan, J.	MR Microwave Absorption and Tomography Imaging	Dartmouth College	NIH	Con't.	163,396	0	0	Research	7052
	Pahlavan, K.		Performance Evaluation of Cellular Localization Techniques	Skyhook Wireless, Inc.		Supplement	6,701	0		Research	08132s1
	Sunar, B.		Improving Snow3G and ECC with the Intel Westmere Instruction Set	Intel Corporation		Supplement	44,233	0		Research	08030s1
Subtotal: 4						648,209	0	34,746			
Management	Strong, D.	Tulu, B., Bar-On, I., Johnson, S.	AOC: Health Information Technology as an Agent of Change for Improving Health Care Delivery Process	NSF		New	749,985	0	24,854	Research	8135
Subtotal: 1						749,985	0	24,854			
Mechanical Engineering	Liang, J.		Integrated Studies on the Interfaces in Nanocomposites and Nanoimprinting	University of Akron	NSF	New	33,889	0	24,854	Research	8161
	Sullivan, J.		Development of a Model to Predict Accumulated Radiation Fields to Assist in the Therapeutic Treatment within Lumpectomy Sites while Maintaining Substantially Reduced Dosages in Surrounding Normal Breast Tissue	Advanced Radiation Therapy		New	17,561	0		Research	8237
	Tryggvason, G.		Applications of Hydrofoil with Leading Edge Protuberances	California State University	Navy	New	42,150	0		Education/ Training	9055
	Tryggvason, G.		Direct Numerical Simulations of Nucleate Flow Boiling	Sandia National Laboratory	DOE	Con't.	106,000	0		Research	7029
Subtotal: 4						199,600	0	24,854			
Physics	Ram-Moham, R.		Graduate Research Assistant Support for Modeling a Quantum Cascade Laser	MIT	DARPA	New	53,594	0	9,280	Education/ Training	8251
Subtotal: 1						53,594	0	9,280			
Total: 13							1,800,677	0	93,734		