

Degree	Nominating Department / Curriculum / Degree	Length	Convenes	PO	Refreshes	APC	JPMC	Dept	Department Chair	Academic Associate	Program Officer	Ph. D. Committee Chair	P_Codes
Applied Mathematics - Chair Francis X. Grialdo	200. Applied Mathematics (Mathematics)	12	Fall	5273				MA	Francis X. Grialdo	Rafuca Gera	Brannon W. Chapman		4100L
	201. Applied Mathematics (Mathematics)	12	Fall	5273				MA	Francis X. Grialdo	Rafuca Gera	Brannon W. Chapman		4100L
	203. Scientific Computing (Mathematics)	9	Fall / Winter / Spring / Summer	5273				MA	Francis X. Grialdo	Francis X. Grialdo	Brannon W. Chapman		4100L
	300. Applied Mathematics (Mathematics)	24	Summer	5273	12 / 24	324		MA	Francis X. Grialdo	Thor Mathisen	Brannon W. Chapman		4100P
	301. Applied Mathematics (Mathematics)	36	Fall / Winter / Spring / Summer	5273	12 / 24	324		MA	Francis X. Grialdo	Francis X. Grialdo	Brannon W. Chapman	Wei Kang	4100D
	525. Undersea Warfare (International)	24	Fall / Spring	5275	12 / 24	323	JPME	MA	Francis X. Grialdo	Christopher G. Smithero	Ana L. Tempone		6301P
	526. Undersea Warfare (International)	24	Fall / Spring	5275	12 / 24	323	JPME	MA	Francis X. Grialdo	Christopher G. Smithero	Ana L. Tempone		6301P
	527. Undersea Warfare (International)	24	Fall / Spring	5275	12 / 24	323	JPME	MA	Francis X. Grialdo	Christopher G. Smithero	Ana L. Tempone		6301P
	528. Undersea Warfare (International)	24	Fall / Spring	5275	12 / 24	323	JPME	MA	Francis X. Grialdo	Christopher G. Smithero	Ana L. Tempone		6301P
	529. Undersea Warfare (International)	24	Fall / Spring	5275	12 / 24	323	JPME	MA	Francis X. Grialdo	Christopher G. Smithero	Ana L. Tempone		6301P
Computer Science - Chair Gurminder Singh	109. Innovation and Design Certificate (Res)	12	Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None
	128. Artificial Intelligence for Military Use Certificate (DL)	12	Spring	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None
	178. Federal/DoD Identity Management Professional Edu	6	Fall / Winter / Spring / Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		6200K
	202. Innovation and Design Certificate (DL)	12	Winter	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None
	211. Implementing Technological Change Certificate (Res)	12	Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None
	231. Implementing Technological Change Certificate (DL)	12	Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None
	240. Healthcare Modeling & Simulation Certificate (DL)	12	Fall / Winter / Spring / Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Britta Hale		None
	256. Cyber Security Fundamentals (Res)	9	Fall / Winter / Spring / Summer	5232				CS	Gurminder Singh	Rudolph J. Darke	Nicholas Ulmer		None
	257. Cyber Security Fundamentals (Res)	9	Fall / Winter / Spring / Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None
	258. Cyber Security Fundamentals (Res)	9	Fall / Winter / Spring / Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None
259. Cyber Security Fundamentals (Res)	9	Fall / Winter / Spring / Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None	
260. Cyber Security Fundamentals (Res)	9	Fall / Winter / Spring / Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None	
261. Cyber Security Fundamentals (Res)	9	Fall / Winter / Spring / Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None	
262. Cyber Security Fundamentals (Res)	9	Fall / Winter / Spring / Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		None	
270. Info Systems Security Support Cert (Res & DL)	12	Winter / Summer	5232				CS	Gurminder Singh	Samuel E. Buttry	Kevin J. Maher		None	
278. Federal/DoD Identity Management Certificate (Hybrid)	6	Fall / Winter / Spring / Summer	5232				CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		6200L	
326. Cyber Systems and Operations	24	Winter / Summer	5232				CS	Gurminder Singh	Duane T. Davis	Nicholas Ulmer		6208P	
365. Applied Modeling and Simulation in Healthcare (DL)	36	Summer	5232	325	325		CS	Gurminder Singh	Marrianna J. Jones	Nicholas Ulmer		None	
367. Computing Technology (DL)	48	Winter / Summer	5232	12	325		CS	Gurminder Singh	Alex B. Shaffer	Loren E. Pelto		None	
368. Computer Science	24	Fall / Spring	5232	12	325		CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		6203P	
369. Software Engineering (Resident & DL)	18	Fall / Winter / Spring / Summer	5232	12	325	JPME	CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		6203P	
370. Computer Science (DL)	24	Fall / Winter / Spring / Summer	5232	12	322	JPME	CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer		6203P, None	
371. Identity Management and Cyber Security (DL)	18	Fall	5232	344			CS	Gurminder Singh	[Unassigned]	Nicholas Ulmer		None	
372. Identity Management and Cyber Security (Res)	12	Fall	5232	344			CS	Gurminder Singh	[Unassigned]	Nicholas Ulmer		None	
384. Computer Science (PhD)	36	Fall / Spring	5232	12	323	JPME	CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer	Nel C. Rowe	6203D	
385. Software Engineering (PhD)	36	Fall / Winter / Spring / Summer	5232	12	325		CS	Gurminder Singh	Alex B. Shaffer	Nicholas Ulmer	Nel C. Rowe	6203D	
386. Modeling, Virtual Environments & Simulation (PhD)	36	Fall	5232	24	325	JPME	CS	Gurminder Singh	Christian J. Darke	Nicholas Ulmer	Donald P. Brudman	6202D	
387. Modeling, Virtual Environments & Simulation (PhD)	36	Fall	5232	24	325	JPME	CS	Gurminder Singh	Christian J. Darke	Nicholas Ulmer	Donald P. Brudman	6202D	
591. Space Systems Engineering	27	Fall	5271	12	323	JPME	CS	Gurminder Singh	Isaac M. Ross	Brannon W. Chapman		5000P, 5000U, None	
Continuing Education - Chair Jessica Bawdon	110. Health Information Security	3	Fall / Winter / Spring / Summer	5173				ConEd	Jessica Bawdon	[Unassigned]	[Unassigned]		4100K
	143. International Defense Management (DDM) (DL)	3	Fall / Winter / Spring / Summer	5173				ConEd	Registrar	[Unassigned]	[Unassigned]		None
	144. International Defense Management (DDM) (DL)	3	Fall / Winter / Spring / Summer	5173				ConEd	Registrar	[Unassigned]	[Unassigned]		None
	190. Course in Computer Science	0	Fall / Winter / Spring / Summer	5100				ConEd	Jessica Bawdon	Alex B. Shaffer	Cecilia M. Davis		None
	190. Course in Electrical Engineering (DL)	0	Fall / Winter / Spring / Summer	5173				ConEd	Jessica Bawdon	Monique P. Fagundes	Monique P. Fagundes		None
	444. International Research	0	Fall / Winter / Spring / Summer	5100				ConEd	Registrar	[Unassigned]	[Unassigned]		None
	505. Memorandum of Understanding	3	Fall / Winter / Spring / Summer	5100				ConEd	Registrar	[Unassigned]	[Unassigned]		None
	777. Professional Development (Non-Degree)	3	Fall / Winter / Spring / Summer	5100				ConEd	Registrar	[Unassigned]	[Unassigned]		None
	778. Naval Professional Development (Non-Degree)	3	Fall / Winter / Spring / Summer	5100				ConEd	Registrar	[Unassigned]	[Unassigned]		None
	999. Staff (Non-Degree)	10	Summer	510				ConEd	Registrar	[Unassigned]	[Unassigned]		None
Cyber Academic Group - Chair Cynthia E. Irvine	227. Cyber Operations Infrastructure	9	Winter / Summer	5232				OAG	Cynthia E. Irvine	Duane T. Davis	[Unassigned]		6208L
	108. Cyber Support to Regional Governance Certificate	18	Winter	5269				DA	Carter Malkasian	Kaleri V. Sopp	David L. Hawk		None
	239. Social Media Analysis, Research, and Practice	18	Fall / Winter / Spring / Summer	5261				DA	Carter Malkasian	Sean F. Epton	David L. Hawk		None
	697. Applied Design for Innovation	18	Summer	5237	265			DA	Carter Malkasian	Cecilia Pennington	David L. Hawk		2500P
	698. Information Strategy and Political Warfare	18	Winter / Summer	5237	265			DA	Carter Malkasian	Ryan Marless	David L. Hawk		None
	699. Social Operations	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P
	MS Defense Analysis (Strategic)	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P
	MS Defense Analysis (Contract & Control)	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P
	MS Defense Analysis (Data Communications)	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P
	MS Defense Analysis (Financial Management)	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P
MS Defense Analysis (Information Operations)	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P	
MS Defense Analysis (Intelligence)	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P	
MS Defense Analysis (National Affairs)	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P	
MS Defense Analysis (Operations Analysis)	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P	
MS Defense Analysis (Tactical Analysis)	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P	
MS Defense Analysis (Terminology & Financing)	18	Winter / Summer	5237	265	JPME		DA	Carter Malkasian	Robert E. Burks	David L. Hawk		2500P	
Department of Defense Management - Chair Raymond D. Jones													
191. Defense Management Foundations Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Nicholas Dew	Matthew T. Geiser		None	
192. Defense Management Foundations Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Deborah J. Alben	Christina C. Hart		None	
193. Leading Innovation in Requirements Development for Technology Transition	12	Summer	5236				DDM	Raymond D. Jones	Kethryn J. Grooms	Matthew T. Geiser		None	
194. Defense Management Foundations Certificate (DL)	12	Winter	5236				DDM	Raymond D. Jones	Eva Regnier	Christina C. Hart		None	
195. DM Certificate (Res)	15	Spring	5236				DDM	Raymond D. Jones	Amelia A. Menchizi	Matthew T. Geiser		None	
196. DM Certificate (DL)	15	Spring	5236				DDM	Raymond D. Jones	Amelia A. Menchizi	Matthew T. Geiser		None	
197. Chief Information Officer (CIO) Management Certificate (Res)	12	Summer	5236				DDM	Raymond D. Jones	Jeffrey R. Dunlap	Matthew T. Geiser		None	
198. Chief Information Officer (CIO) Management Certificate (DL)	12	Summer	5236				DDM	Raymond D. Jones	Jeffrey R. Dunlap	Matthew T. Geiser		None	
200. Principles of Analytical Management Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Gerardo Ferrer	Christina C. Hart		None	
202. Principles of Analytical Management Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Gerardo Ferrer	Christina C. Hart		None	
203. Acquisition Logistics Certificate (Res)	15	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Gerardo Ferrer	Matthew T. Geiser		None	
204. Acquisition Logistics Certificate (DL)	15	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Gerardo Ferrer	Matthew T. Geiser		None	
205. Strategic Leadership Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Deborah J. Alben	Christina C. Hart		None	
206. Strategic Leadership Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Deborah J. Alben	Christina C. Hart		None	
207. Leadership for Public Administrators Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Deborah J. Alben	Christina C. Hart		None	
208. Leadership for Public Administrators Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Deborah J. Alben	Christina C. Hart		None	
210. Advanced Acquisition Program Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Raymond D. Jones	Christina C. Hart		None	
212. Acquisition Management DL Program Certificate (DL)	3	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	[Unassigned]	Christina C. Hart		None	
217. Advanced Acquisition Studies Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Robert F. Morlock	Matthew T. Geiser		None	
218. Advanced Acquisition Studies Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Robert F. Morlock	Matthew T. Geiser		None	
219. Managerial Logistics Certificate (Res)	15	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Gerardo Ferrer	Matthew T. Geiser		None	
220. Managerial Logistics Certificate (DL)	15	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Gerardo Ferrer	Matthew T. Geiser		None	
229. Cost-Benefit Analysis and Program Evaluation Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Marjorie Bacold	Matthew T. Geiser		None	
230. Cost-Benefit Analysis and Program Evaluation Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	Marjorie Bacold	Matthew T. Geiser		None	
237. Basic Contract Management Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	René G. Rendon	Matthew T. Geiser		None	
238. Basic Contract Management Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	René G. Rendon	Matthew T. Geiser		None	
240. Advanced Contract Management Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	René G. Rendon	Matthew T. Geiser		None	
241. Advanced Contract Management Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	René G. Rendon	Matthew T. Geiser		None	
242. Advanced Contract Management Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	René G. Rendon	Matthew T. Geiser		None	
243. Advanced Contract Management Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	René G. Rendon	Matthew T. Geiser		None	
244. Advanced Contract Management Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	René G. Rendon	Matthew T. Geiser		None	
245. Advanced Contract Management Certificate (DL)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	René G. Rendon	Matthew T. Geiser		None	
246. Advanced Contract Management Certificate (Res)	12	Fall / Winter / Spring / Summer	5236				DDM	Raymond D. Jones	René G. Rendon	Matthew T. Geiser		None	
247. Advanced Contract Management Certificate (DL)	12	Fall / Winter / Spring / Summer											

Degree Nominating Department / Curriculum / Degree	Length	Convenes	PO	Refresh	APC	JPME	Dept	Department Chair	Academic Associate	Program Officer	P. D. Committee Chair	P. Codes
Systems Engineering - Chair Oleg A. Yakhnenko												
130- Systems Engineering Capstone Certificate (DL)												
CERT OF COMPL. Systems Engineering Capstone	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Raymond J. Madachy	Joseph W. Sweeney	NoneL	
131- Systems Capability and Design Certificate (DL)												
CERT OF COMPL. Systems Capability and Design	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Raymond J. Madachy	Joseph W. Sweeney	None	
132- Systems of Systems Certificate (DL)												
CERT OF COMPL. System of Systems	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Warren Vaneman	Walter E. Owen		
133- Avionics Systems Engineering Certificate (DL)												
CERT OF COMPL. Avionics Systems Engineering	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Ronald R. Carlson	Walter E. Owen		
134- Avionics Systems Certificate (DL)												
CERT OF COMPL. Avionics Systems	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Ronald R. Carlson	Walter E. Owen	NoneL	
135- Systems Test and Evaluation Certificate (DL)												
CERT OF COMPL. Systems Test and Evaluation	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Oleg A. Yakhnenko	Walter E. Owen		
136- Directed Energy Systems Certificate (DL)												
CERT OF COMPL. Directed Energy Systems	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Bonnie W. Johnson	Walter E. Owen	NDNEL	
137- Systems Safety Engineering Certificate (DL)												
CERT OF COMPL. Systems Safety Engineering	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Fotis A. Papoulas	Walter E. Owen		
138- Digital Engineering Certificate (DL)												
CERT OF COMPL. Digital Engineering	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	[Unassigned]	Walter E. Owen		
139- Systems Engineering Management Capstone Certificate (DL)												
CERT OF COMPL. Systems Engineering Management Capstone	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Kathleen B. Gies	Walter E. Owen		
139- Systems Integrated Development Certificate (DL)												
CERT OF COMPL. Systems Integrated Development	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Kathleen B. Gies	Walter E. Owen		
139- Systems Technology and Advancement Certificate (DL)												
CERT OF COMPL. Systems Technology and Advancement	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Kathleen B. Gies	Walter E. Owen		
139- Systems Engineering and Integration of Naval Weapons Systems Certificate (DL)												
CERT OF COMPL. Systems Engineering and Integration of Naval Weapons Systems	12	Fall / Winter / Spring / Summer	5276				SE	Oleg A. Yakhnenko	Mark Stevens	Anthony G. Pollman	NoneL	
232- Lead Systems Integrator (DL)												
CERT OF COMPL. Lead Systems Integrator	12	Fall	5276				SE	Oleg A. Yakhnenko	Warren Vaneman	Ronald R. Carlson	None	
265- Reliability & Maintainability Engineering (R&ME) (DL)												
CERT OF COMPL. Reliability & Maintainability Engineering (R&ME)	12	Fall	5276	6 /			SE	Oleg A. Yakhnenko	Bryan M. O'Halloran	Walter E. Owen	None	
265- Modeling and Simulation Management Cert (Res & DL)												
CERT OF COMPL. Modeling and Simulation Management	12	Fall / Spring	5276				323	SE	Oleg A. Yakhnenko	Eugene P. Klam	Mark M. Rhoades	6202L
265- Systems Engineering Certificate (Res & DL)												
CERT OF COMPL. Systems Engineering	12	Fall / Spring	5276				365	SE	Oleg A. Yakhnenko	Joseph T. Pkalo	Joseph W. Sweeney	5800L
308 - Systems Engineering Analysis												
MS Systems Engineering	24	Summer	5299			234	JPME	SE	Oleg A. Yakhnenko	Mark Stevens	Caleb W. MacDonald	6500P, 6501P
311- Systems Engineering (DL)												
MS Systems Engineering	24	Fall / Winter / Spring / Summer	5276			323	SE	Oleg A. Yakhnenko	Raymond J. Madachy	Joseph W. Sweeney	5800P	
MS Systems Engineering Management												
MS Systems Engineering												
312- Avionics Systems Engineering (DL)												
MS Systems Engineering	24	Fall / Spring	5276			334	SE	Oleg A. Yakhnenko	Kathleen B. Gies	Joseph W. Sweeney	5804P	
MS Systems Engineering												
322 - Systems Engineering Management – System Acquisition												
MS Systems Engineering Management	18	Winter / Summer	5276			345	SE	Oleg A. Yakhnenko	Alejandro S. Hernandez	Caleb W. MacDonald	None	
322 - Systems Engineering Management – System Integration												
MS Systems Engineering Management	21	Fall / Spring	5276	12	234	SE	Oleg A. Yakhnenko	Mark Stevens	Caleb W. MacDonald	5800L, 5801P, 5802P, 5803L, 5804P, 5805P, 5806P, 5807P, 5808P, 5809P, 5810P, 5811P, 5812P, 5813P, 5814P, 5815P, 5816P, 5817P, 5818P, 5819P, 5820P, 5821P, 5822P, 5823P, 5824P, 5825P, 5826P, 5827P, 5828P, 5829P, 5830P, 5831P, 5832P, 5833P, 5834P, 5835P, 5836P, 5837P, 5838P, 5839P, 5840P, 5841P, 5842P, 5843P, 5844P, 5845P, 5846P, 5847P, 5848P, 5849P, 5850P, 5851P, 5852P, 5853P, 5854P, 5855P, 5856P, 5857P, 5858P, 5859P, 5860P, 5861P, 5862P, 5863P, 5864P, 5865P, 5866P, 5867P, 5868P, 5869P, 5870P, 5871P, 5872P, 5873P, 5874P, 5875P, 5876P, 5877P, 5878P, 5879P, 5880P, 5881P, 5882P, 5883P, 5884P, 5885P, 5886P, 5887P, 5888P, 5889P, 5890P, 5891P, 5892P, 5893P, 5894P, 5895P, 5896P, 5897P, 5898P, 5899P, 5900P, 5901P, 5902P, 5903P, 5904P, 5905P, 5906P, 5907P, 5908P, 5909P, 5910P, 5911P, 5912P, 5913P, 5914P, 5915P, 5916P, 5917P, 5918P, 5919P, 5920P, 5921P, 5922P, 5923P, 5924P, 5925P, 5926P, 5927P, 5928P, 5929P, 5930P, 5931P, 5932P, 5933P, 5934P, 5935P, 5936P, 5937P, 5938P, 5939P, 5940P, 5941P, 5942P, 5943P, 5944P, 5945P, 5946P, 5947P, 5948P, 5949P, 5950P, 5951P, 5952P, 5953P, 5954P, 5955P, 5956P, 5957P, 5958P, 5959P, 5960P, 5961P, 5962P, 5963P, 5964P, 5965P, 5966P, 5967P, 5968P, 5969P, 5970P, 5971P, 5972P, 5973P, 5974P, 5975P, 5976P, 5977P, 5978P, 5979P, 5980P, 5981P, 5982P, 5983P, 5984P, 5985P, 5986P, 5987P, 5988P, 5989P, 5990P, 5991P, 5992P, 5993P, 5994P, 5995P, 5996P, 5997P, 5998P, 5999P, 6000P, 6001P, 6002P, 6003P, 6004P, 6005P, 6006P, 6007P, 6008P, 6009P, 6010P, 6011P, 6012P, 6013P, 6014P, 6015P, 6016P, 6017P, 6018P, 6019P, 6020P, 6021P, 6022P, 6023P, 6024P, 6025P, 6026P, 6027P, 6028P, 6029P, 6030P, 6031P, 6032P, 6033P, 6034P, 6035P, 6036P, 6037P, 6038P, 6039P, 6040P, 6041P, 6042P, 6043P, 6044P, 6045P, 6046P, 6047P, 6048P, 6049P, 6050P, 6051P, 6052P, 6053P, 6054P, 6055P, 6056P, 6057P, 6058P, 6059P, 6060P, 6061P, 6062P, 6063P, 6064P, 6065P, 6066P, 6067P, 6068P, 6069P, 6070P, 6071P, 6072P, 6073P, 6074P, 6075P, 6076P, 6077P, 6078P, 6079P, 6080P, 6081P, 6082P, 6083P, 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