



FACULTY OF HUMANITIES AND SOCIAL SCIENCES

SCHOOL OF HISTORY, PHILOSOPHY, POLITICAL SCIENCE AND INTERNATIONAL RELATIONS

POLITICAL SCIENCE & INTERNATIONAL RELATIONS PROGRAMME

STRA 531: STRATEGIC STUDIES

30 POINTS

TRIMESTER 1 2014

Important dates

Trimester dates: 3 March to 2 July 2014

Teaching dates: 3 March to 6 June 2014 (First lecture/seminar 6 March 2014; final lecture/seminar 29 May 2014)

Easter/Mid-trimester break: 18 April to 4 May 2014

Last assignment: Open book test to take place on: 5 June 2014 from 5:00pm

Withdrawal dates: Refer to www.victoria.ac.nz/students/study/withdrawals-refunds. If you cannot complete an assignment or sit a test or examination, refer to www.victoria.ac.nz/students/study/exams/aegrotats.

Class times and locations

Lectures/Seminars: Thursdays 5pm-8pm

Venue: Rm 103, Murphy Building, Kelburn Parade

Names and contact details

Course Coordinator: Robert Ayson

Room No: 205, 16 Kelburn Parade

Phone: 04 4636445

Email: Robert.ayson@vuw.ac.nz

Communication of additional information

This course uses Blackboard and presumes that all enrolled students have valid myvuw.ac.nz addresses. Please check that this account is active and you have organised email forwarding. Additional information and any changes to the timetable or lecture and seminar programme will be posted on the course Blackboard site.

Prescription

This course covers strategic thinking from Clausewitz to the 21st century. Emphasis will be placed on the relationship between force and international politics including the role of strategy in limiting international competition and attempts to restrain the use of force.

Course content

STRA 531 is a core 30 point course for students in the Strategic Studies programme and for students from related subject areas. It seeks to provide a comprehensive and systematic understanding of strategic studies in the context of leading problems in international security by first building an understanding of the conceptual apparatus of strategic studies before focusing on the application of strategic thinking to a number of these contemporary international issues.

The dates and topics for the 12 sessions are as follows:

Thursday 6 March 2014: Session 1: Strategy, Violence and War

Thursday 13 March 2014: Session 2: Power, Politics and Influence

Thursday 20 March 2014: Session 3: Strategic Objectives: Security, Peace, Victory?

Thursday 27 March 2014: Session 4: Justice, Law and Strategic Ethics

Thursday 3 April 2014: Session 5: Technology: Revolutions in Military Affairs?

Thursday 10 April 2014: Session 6: Making Strategy: Culture, Policy-Making and Systems

Thursday 17 April 2014: Session 7: State Collapse, Interventions and The Quest for Peace

Friday 18 April – 4 May 2014: Mid-Trimester (Easter) Break

Thursday 1 May 2014: Session 8: New Wars, Counterinsurgency & the Strategic Narrative

Thursday 8 May 2014: Session 9: Terrorism, Counter-terrorism and Asymmetry

Thursday 15 May 2014: Session 10: Old Armageddon? Proliferation and the Nuclear Age

Thursday 22 May 2014: Session 11: Globalisation or Geopolitics: The US and China

Thursday 29 May 2014: Session 12: New Armageddon? Climate, Resources & Security

Course learning objectives (CLOs)

Students who pass this course should be able to:

1. Analyse the relationship between force and politics
2. Analyse the mix of competition and cooperation in strategic relationships
3. Evaluate major aspects of the evolution of strategic thought
4. Apply strategic thinking to a range of international security problems

Teaching format

The course is taught in 12 weekly teaching sessions to allow for step-by-step consideration of the curriculum. These weekly sessions are timed in the evening to allow for part-time students to attend. Most sessions will consist of one or more presentations by the lead teacher (or the guest lecturer where applicable). Time will also be devoted to interactive class discussion which allows

students to work with the ideas and issues being raised and for which students need to prepare by keeping up with the readings for each session.

Mandatory course requirements

In addition to achieving an overall pass mark of 50% students must:

- Submit the written work specified for this course, on or by the specified dates (subject to such provisions as are stated for late submission of work)
- Attend all of the lectures and seminars conducted (permission must be gained in advance for any absences)
- Complete the open-book test

Workload

In accordance with Faculty Guidelines, this course has been constructed on the assumption that students will devote 300 hours to STRA 531 throughout the trimester. This includes weekly attendance at lectures/seminars, completion of all set weekly readings and research and writing for set assessment tasks. Please note it is an important part of your skills development in working out how much time you should allocate to each of these tasks. But here are some very rough guidelines on what to expect:

Preparation (including reading) and attendance at classes	120 hours
Research and Preparation of short essay	45 hours
Research and Preparation of long essay	90 hours
Study for & writing of open-book test	45 hours
Total	300 hours

Assessment

Assessment items and workload per item		%	CLO(s)	Due date
1	2,500 word short written assignment	25%	1, 3	31 March 5pm
2	5,000 word long essay	50%	1-4	12 May 5pm
3	Open-book on-line test (3 hours)	25%	1-4	5 June

There are three pieces of assessment for this course:

1. **A first and shorter written assignment (25%) to be submitted to the Blackboard site for STRA 531.** Please write **2,500 words** on ONE of the following topics:
 - (a) Using a significant number of the required readings from the first three sessions of the course, examine the extent to which there is a consistent approach to the purposes of strategy in modern strategic studies.
 - (b) Provide an explanation of a contemporary crisis or issue in strategic affairs through the lens of the required readings from the first three sessions of the course. (The

crisis or issue might be China-Japan tensions over the East China Sea or the situation in Syria or South Sudan).

2. **A second and longer written assignment (50%) to be submitted to the Blackboard Site.** Please write **5,000 words** on ONE of the following topics:

- (a) 'War cannot be just.' Evaluate this claim.
- (b) 'It is nonsense to suggest that the world's leading nation-states, who have unmatched cyber-capabilities, are vulnerable to cyber-attacks from non-state actors'. Evaluate this claim.
- (c) 'Strategic culture is too inward-looking to be useful to understand strategies which are necessarily interactive.' Evaluate this claim.
- (d) 'Intervention exacerbates conflict. It does not control and remove it.' Evaluate this claim.
- (e) 'Even if it had been more successful, the approach to counterinsurgency developed for Afghanistan in recent years could not be a model for counterinsurgencies elsewhere.'
- (f) 'Terrorism doesn't work.' Evaluate this claim.
- (g) 'In any realistic assessment of nuclear dangers, Pakistan's expanding arsenal easily outweighs the rudimentary North Korea and non-existent Iranian nuclear weapons capabilities.' Evaluate this claim.
- (h) 'Because of Japan, the United States and China simply won't be able to sustain a new era in great power relations'.
- (i) A topic formulated in consultation with the course teacher. If you wish to choose this option, please consult Professor Ayson.

3. **Open Book Test (25%) to be sat, and submitted, VIA BLACKBOARD.** A list of questions, dealing with the entire course, will be put up on Blackboard at **5.00pm on the day of the test**. Students will be required to answer 3 essay-style questions from the list. Answers are to be submitted **VIA BLACKBOARD** by **8.30pm**.

This is a three hour test and you have been given an extra 30 minutes to get yourself organised. It is therefore expected that everyone will sit the test at the same time.

As this test is conducted via Blackboard, students need to have access to a computer with an internet connection – this should all be organised by the student in advance to avoid any problems.

Penalties may apply to tests that are submitted after the 8.30pm deadline.

Marking Criteria

Each of these three pieces of written work will be assessed on the basis of whether you have

- (a) answered the question directly
- (b) developed clear and well-substantiated arguments
- (c) linked your arguments together in a clear logic that flows through the assignment
- (d) reflected an awareness in your writing of the strategic studies literature on the subject
- (e) written in a style that is easy to follow and communicates your points clearly and effectively
- (f) observed relevant scholarly conventions

Submission and return of work

The short and long written assignments will be submitted electronically by the student to the Blackboard site for STRA 531 using the cover page for the particular assignment which will also be provided on the Blackboard Site. Marked work will be returned in class, and the course instructor will aim to do this within two to three weeks of the official submission date. The open-book test will also be submitted by Blackboard.

Extensions and penalties

Extensions

You may request an extension in advance of the due date for a particular piece of assessment from the course instructor by sending an email and explaining the reason for the extension request and the length of extension requested to Robert.ayson@vuw.ac.nz. Extensions are generally only granted in exceptional circumstances, eg illness of the student or a family member.

Penalties

Students will be penalised for late submission of assignments – **a deduction of 5% for the first day late, and 2% per day thereafter, up to a maximum of 8 days**. Work that is more than 10 weekdays late can be accepted for mandatory course requirements but may not be marked.

Penalties may apply to tests that are submitted after the 8.30pm deadline.

Penalties may be waived if there are valid grounds (for example, illness [presentation of a medical certificate will be necessary] or similar other contingencies). In all such cases, prior information will be necessary.

Class representative

A class representative provides a useful way to communicate feedback to the teaching staff during the course. Subject to the interest among students, a class representative may be selected at the first lecture of the course.

Student Feedback

Enhancements made to this course, based on the feedback of previous students, will be covered during the course. Student feedback on University courses may be found at www.cad.vuw.ac.nz/feedback/feedback_display.php.

Other important information

The information above is specific to this course. There is other important information that students must familiarise themselves with, including:

- Academic Integrity and Plagiarism: www.victoria.ac.nz/students/study/exams/integrity-plagiarism
- Aegrotats: www.victoria.ac.nz/students/study/exams/aegrotats
- Academic Progress: www.victoria.ac.nz/students/study/progress/academic-progress (including restrictions and non-engagement)
- Dates and deadlines: www.victoria.ac.nz/students/study/dates
- FHSS Student and Academic Services Office: www.victoria.ac.nz/fhss/student-admin
- Grades: www.victoria.ac.nz/students/study/progress/grades
- Resolving academic issues: www.victoria.ac.nz/about/governance/dvc-academic/publications
- Special passes: www.victoria.ac.nz/about/governance/dvc-academic/publications
- Statutes and policies including the Student Conduct Statute: www.victoria.ac.nz/about/governance/strategy
- Student support: www.victoria.ac.nz/students/support
- Students with disabilities: www.victoria.ac.nz/st_services/disability
- Student Charter: www.victoria.ac.nz/learning-teaching/learning-partnerships/student-charter
- Student Contract: www.victoria.ac.nz/study/apply-enrol/terms-conditions/student-contract
- Subject Librarians: <http://library.victoria.ac.nz/library/resources/subjectcontacts.html>
- Turnitin: www.cad.vuw.ac.nz/wiki/index.php/Turnitin
- University structure: www.victoria.ac.nz/about/governance/structure
- VUWSA: www.vuwsa.org.nz

Readings

A series of required and further readings for each of the 12 teaching sessions has been selected for students to assist with their studies. Students are expected to read *all of the Required Readings* – please consult the Blackboard site for STRA 531. As time allows, they should also follow up on the Further Readings by using the resources of the Victoria University of Wellington library (including the valuable electronic journal holdings). Students working on a long assignment topic should read beyond the required and further readings, locating additional reading material which will deepen their research and the quality of their written work.

The required and further readings for each of the twelve sessions are as follows:

Session 1: Strategy, Violence and War

Required Readings

- Colin Gray, *Modern Strategy*, Oxford: Oxford University Press, 1999, pp. 16-47.
- Carl von Clausewitz, *On War*, Indexed edition, edited and translated by Michael Howard and Peter Paret, Princeton: Princeton University Press, 1976, Book 1, Ch 1 & Bk 8 Ch 6B; pp. 75-89, 605-610.
- Robert Ayson, 'Strategic Studies', in Chris Reus-Smit and Duncan Snidal (eds), *The Oxford Handbook of International Relations*, Oxford: Oxford University Press, 2008, pp. 558-575.

Further Readings

- Thomas Schelling, *The Strategy of Conflict*, Cambridge MA: Harvard University Press, 1960.
- Lawrence Freedman, *Strategy: A History*, New York: Oxford University Press, 2013.
- Sun Tzu, *The Art of War* (various editions/translations).
- Hew Strachan, 'The Lost Meaning of Strategy', *Survival*, 47:3, Autumn 2005, pp. 33-54.
- Alan Beyerchen, 'Clausewitz, Nonlinearity and the Unpredictability of War', *International Security*, 17:3, Winter 1992/93, pp. 59-90.

Session 2: Power, Politics and Influence

Required Readings

- Bruce D. Porter, *War and the Rise of the State: The Military Foundations of Modern Politics*, New York: The Free Press, 1994, pp. 1-22, 306-11.
- Lawrence Freedman, 'Strategic studies and the problem of power', in Thomas G. Mahnken and Joseph A. Maiolo (eds), *Strategic Studies: A Reader*, London: Routledge, 2008, pp. 22-33.
- Thomas Schelling, *Arms and Influence*, New Haven CT: Yale University Press, 1966, pp. 1-34.

Further Readings

- Samuel Huntington, *The Soldier and the State*, Cambridge: Belknap Press, 1964.
- Bernard Brodie, *War and Politics*, New York: Macmillan, 1973.
- Pierre Hassner, *Violence and Peace*, Budapest: Central European University Press, 1997.
- R. Harrison Wagner, *War and the State: The Theory of International Politics*, Ann Arbor: University of Michigan Press, 2009.

Session 3: Strategic Objectives: Security, Peace, Victory?

Required Readings

- Lawrence Freedman, *Deterrence*, Cambridge: Polity Press, 2005, pp. 26-42, 133.
- Terry L. Diebel, *Foreign Affairs Strategy: Logic for American Statecraft*, Cambridge: Cambridge University Press, 2007, pp. 281-321.
- Barry Buzan, Ole Waever and Jaap de Wilde, *Security: A New Framework for Analysis*, Boulder: Lynne Rienner, 1998, pp. 49-70.

Further Readings

- Colin Gray, *Defining and Achieving Decisive Victory*, Carlisle: Strategic Studies Institute, 2002, available at www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=272
- Michael Howard, *The Causes of War and Other Essays*, London: Temple Smith, 1983.
- Ken Booth, *Theory of World Security*, Cambridge: Cambridge University Press, 2008.
- Patrick Morgan, 'The state of deterrence in international politics today', *Contemporary Security Policy* 33: 1, 2012, pp. 85-107.

Session 4: Justice, Law and Strategic Ethics

Required Readings

- Justin Morris, 'Law, Politics and the Use of Force', in John Baylis et al (eds), *Strategy in the Contemporary World*, 2d ed., Oxford: Oxford University Press, 2007, pp. 101-121.
- P.W. Singer, 'The Ethics of Killer Applications: Why Is It So Hard To Talk About Morality When it Comes to New Technology', *Journal of Military Ethics*, 9:4, 2010, pp. 299-312.
- Hedley Bull, 'Strategic Studies and Its Critics', *World Politics*, 20:4, July 1968, pp. 593-605.

Further Readings

- Martin Ceadal, *Thinking About Peace and War*, Oxford: Oxford University Press, 1989.
- Michael Walzer, *Just and Unjust Wars*, New York: Basic Books, 1977.
- Terry Nardin (ed), *The Ethics of War and Peace*, Princeton: Princeton University Press, 1988.
- Ian Cooper and Eric Patterson, 'UN Authority and the Morality of Force', *Survival*, 53:6, December 2011-January 2012, pp. 141-158.

Session 5: Technology: Military Revolutions? Cyberwar?

Required Readings

- Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle*, Princeton: Princeton University Press, 2004, pp. 52-77, 262-70.
- Jacqueline Newmyer, 'The Revolution in Military Affairs With Chinese Characteristics', *Journal of Strategic Studies*, 33:4, August 2010, pp. 483-504.
- Thomas Rid, 'Cyberwar Will Not Take Place', *Journal of Strategic Studies*, 35:1, 2012, pp. 5-32.
- Herbert Lin, 'Offensive cyber operations and the use of force', *Journal of National Security, Law and Policy* 4:63, 2010, pp. 63-86

Further Readings

- P.W. Singer, *Wired for War: The Robotics Revolution and 21st Century Conflict*, New York: Penguin, 2009.
- Lawrence Freedman, *The Revolution in Strategic Affairs*, London: IISS, 1998.
- Stephen J. Blank, 'Preparing for the Next War: Reflections on the Revolution in Military Affairs', in John Aquilla and David Ronfeldt, (eds), *In Athena's Camp: Preparing for Conflict in the Information Age*, Santa Monica: RAND, 1997, pp. 61-77.

Session 6: Making Strategy: Culture, Policy-Making and Systems

Required Readings

- Williamson Murray and Mark Grimsley, 'Introduction: On strategy', in Williamson Murray et al, *The Making of Strategy: Rulers, States and War*, Cambridge: Cambridge University Press, 1994, pp. 1-23.
- P.H. Liotta and Richmond M. Lloyd, 'From Here to There: The Strategy and Force Planning Framework', *Naval War College Review*, 58:2, Spring 2005, pp. 121-137.

- Alistair Iain Johnston, 'Thinking About Strategic Culture', *International Security*, 19:4, Spring 1995, pp. 32-64.

Further Readings

- Peter Paret (ed), *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, Princeton: Princeton University Press, 1986.
- Colin Gray, 'Strategic culture as context: the first generation of theory strikes back', *Review of International Studies* 25:1, January 1999, pp. 49–69.
- C.F. Kurtz and D.J. Snowden, 'The new dynamics of strategy: Sense-making in a complex and complicated world', *IBM Systems Journal*, 42:3, 2003, pp. 462-483.

Session 7: State Collapse, Interventions and The Quest for Peace

Required Readings

- Robert Layton, *Order and Anarchy: Civil Society, Social Disorder and War*, Cambridge: Cambridge University Press, 2006, pp. 92-137.
- Mats Berdal, *Building Peace After War*, Abingdon: Routledge for IISS, 2009, pp. 95-134, 199-207.
- International Commission on Intervention and State Sovereignty, *The Responsibility to Protect*, Ottawa: International Development Research Centre, 2001, pp. 1-18.
- Roland Paris, *At War's End: Building Peace After Civil Conflict*, Cambridge: Cambridge University Press, 2004, pp. 151-178.

Further Readings

- Robert I. Rotberg, 'The New Nature of Nation-State Failure', *Washington Quarterly*, 25:2, June 2002, pp. 83-96.
- Benjamin Reilly, 'The Africanisation of the South Pacific', *Australian Journal of International Affairs*, 54:3, 2000, pp. 261-8.
- S. Neil MacFarlane, *Intervention in Contemporary World Politics*, Adelphi Paper 350, London: IISS, 2002.
- Hedley Bull, (ed), *Intervention in World Politics*, Oxford: Clarendon Press, 1984.
- Michael W. Doyle and Nicholas Sambanis, *Making War and Building Peace: United Nations Peace Operations*, Princeton: Princeton University Press, 2006.

Session 8: New Wars, Counterinsurgency & the Strategic Narrative

Required Readings

- Mary Kaldor, *New & Old Wars: Organized Violence in a Global Era*, Cambridge: Polity, 1999, pp. 69-89, 162-4.
- David Kilcullen, *Counterinsurgency*, Melbourne: Scribe, 2010, pp. 17-49, 230-1.
- Emile Simpson, *War from the Ground Up*, Melbourne: Scribe, 2013, pp. 179-206, 265-9.
- Lawrence Freedman, *Strategy: A History*, New York: Oxford University Press, 2013, pp. 607-629, 714-7.

Further Readings

- John A. Nagl, *Learning to eat soup with a knife: counterinsurgency lessons from Malaya and Vietnam*, Chicago: University of Chicago Press, 2005.
- David Martin Jones, M.L.R. Smith and John Stone, 'Counter-COIN: Counterinsurgency and the Preemption of Strategy', *Studies in Conflict and Terrorism*, 35:9, September 2012, pp. 597-617.
- Martin van Creveld, *On Future War*, London: Brassey's 1991, pp. 1-32.

Session 9: Terrorism, Counter-terrorism and Asymmetry

Required Readings

- Ivan Arreguin-Toft, 'How the Weak Win Wars: A Theory of Asymmetric Conflict', *International Security*, 26:1, Summer 2001, pp. 93-128.
- Max Abrahms, 'What Terrorists Really Want: Terrorist Motives and Counterterrorism Strategy', *International Security*, 32:4, Spring 2008, pp. 78-105.
- Robert Ayson, 'After a Terrorist Nuclear Attack: Envisaging Catalytic Effects', *Studies in Conflict and Terrorism*, 33:7, July 2010, pp. 571-593.

Further Readings

- Bruce Hoffman, *Inside Terrorism*, New York: Columbia University Press, 2006.
- Robert Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism*, New York: Random House, 2005.
- Gil Merom, *How democracies lose small wars: state, society, and the failures of France in Algeria, Israel in Lebanon, and the United States in Vietnam*, Cambridge: Cambridge University Press, 2003.
- Simon Cottee and Keith Hayward, 'Terrorist (E)motives: The Existential Attractions of Terrorism', *Studies in Conflict and Terrorism*, 34:12, December 2011, pp. 963-986.

Session 10: Old Armageddon? Proliferation and the Nuclear Age

Required Readings

- Muthiah Alagappa, 'Exploring Roles, Strategies and Implications', in Muthiah Alagappa (ed.), *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, Stanford: Stanford University Press, 2008, pp. 78-107.
- Thomas Schelling and Morton Halperin, *Strategy and Arms Control*, New York: Twentieth Century Fund, 1961, pp. 9-24.
- James M. Acton, 'Bombs Away? Being Realistic about Deep Nuclear Reductions', *The Washington Quarterly*, 35:2, Spring 2012, pp. 37-53.

Further Readings

- Lawrence Freedman, *The Evolution of Nuclear Strategy*, various editions.
- Scott Sagan and Kenneth Waltz, *The Spread of Nuclear Weapons: A Debate*, New York: Norton, 1995.

- C. Braun and C.F. Chyba, 'Proliferation Rings: New Challenges to the Nuclear Nonproliferation Regime', *International Security*, 29: 2, Fall 2004, pp. 5-49.
- Tom Sauer, 'A Second Nuclear Revolution: From Nuclear Primacy to Post-Existential Deterrence', *Journal of Strategic Studies*, 32:5, October 2009, pp. 745-767.

Session 11: Globalisation or Geopolitics? The US and China

Required Readings

- Hugh White, *The China Choice: Why America Should Share Power*, Collingwood Vic: Black Inc, 2012, pp. 128-154
- Rosemary Foot, 'China and the United States: Between Cold and Warm Peace', *Survival*, 51:6, December 2009-January 2010, pp. 123-146.
- Christian Le Miere, 'America's Pivot to East Asia: The Naval Dimension', *Survival*, 54:3, June-July 2012, pp. 81-94.

Further Readings

- Margaret MacMillan, 'The Rhyme of History: Lessons of the Great War', Washington DC: Brookings Institution, 2013 <http://www.brookings.edu/research/essays/2013/rhyme-of-history>
- Joseph F. Nye Jr, 'American and Chinese Power After the Financial Crisis', *Washington Quarterly*, 33:4, October 2010, pp. 143-153.
- Gregory Chin and Ramesh Thakur, 'Will China Change The Rules of Global Order', *Washington Quarterly*, 33:4, October 2010, pp. 119-138.
- Wang Jisi, 'China's Search for Stability with America', *Foreign Affairs*, 84:5, September-October 2005, pp. 39-48.
- Andrew F. Hart and Bruce D. Jones, 'How Do Rising Powers Rise?', *Survival*, 52:6, December 2010-January 2011, pp. 63-88.

Session 12: New Armageddon? Climate, Resources & Security

Required Readings

- Alan Dupont, 'The Strategic Implications of Climate Change', *Survival*, 50:3, June-July 2008, pp. 29-54.
- Paul F. Herman Jr and Gregory Treverton, 'The Political Consequences of Climate Change', *Survival*, 51:2, April-May 2009, pp. 137-148.
- Brahma Chellaney, 'Asia's Worsening Water Crisis', *Survival*, 54:2, April-May 2012, pp. 143-156.

Further Readings

- Jon Barnett and W. Neil Adger, 'Climate change, human security and violent conflict', *Political Geography*, 26, 2007, pp. 639-655.
- Jonathan Boston et al, *Climate Change and Security: Planning for The Future*, Wellington: Institute of Policy Studies, 2009.
- Daniel Yergin, 'Ensuring Energy Security', *Foreign Affairs*, 85:2, March-April 2006, pp. 69-82.
- Suisheng Zhao, 'China's Global Search for Energy Security: cooperation and competition in

Asia–Pacific', *Journal of Contemporary China*, 17: 55, 2008, pp. 207-227.