SAMPLE COURSE OUTLINE

GEOGRAPHY
ATAR YEAR 12

Acknowledgement of Country

Kaya. The School Curriculum and Standards Authority (the Authority) acknowledges that our offices are on Whadjuk Noongar boodjar and that we deliver our services on the country of many traditional custodians and language groups throughout Western Australia. The Authority acknowledges the traditional custodians throughout Western Australia and their continuing connection to land, waters and community. We offer our respect to Elders past and present.

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Sample course outline

Geography – ATAR Year 12

Unit 3 and 4

Geographical Inquiry Skills

All the Geographical inquiry and skills must be taught during this unit. Relevant skills should be emphasised for each depth study.

- Observing, questioning and planning
 - formulate geographical inquiry questions
 - plan a geographical inquiry with clearly defined aims and appropriate methodology
- Collecting, recording, evaluating and representing
 - collect geographical information, incorporating ethical protocols, from a range of primary sources (e.g. interviews, questionnaires, student's own experiences, field observations) and secondary sources (e.g. online maps, websites, spatial software applications, print resources, visual media)
 - record observations in a range of graphic representations using spatial technologies and information and communication technologies
 - evaluate the reliability, validity and usefulness of geographical sources and information
 - acknowledge sources of information and use an approved referencing style
- Interpreting, analysing and concluding
 - analyse geographical information and data from a range of primary and secondary sources, and a variety of perspectives, to draw reasoned conclusions and make generalisations
 - identify and analyse relationships, spatial patterns and trends, and make predictions and inferences
- Communicating
 - communicate geographical information, ideas, issues and arguments using appropriate written and/or oral, cartographic, multimodal and graphic forms
 - use geographical language in appropriate contexts to demonstrate geographical knowledge and understanding
- Reflecting and responding
 - apply generalisations to evaluate alternative responses to geographical issues at a variety of scales
 - propose individual and collective action, taking into account environmental, social and economic factors and predict the outcomes of the proposed action

Geographical Skill

Mapping skills (use of maps and atlases)

- interpret a variety of topographic and thematic maps (e.g. physical, political, and social maps, synoptic charts and climate maps) at different scales, including local, national and global
- interpret and apply data from different types of statistical maps (e.g. isopleth/isoline maps, choropleth maps, proportional circle maps, overlay and dot distribution maps)

- interpret marginal information represented on maps, including title, conventional symbols contained in the legend, north point, numerical and linear scale
- establish position on a map using alphanumeric grid coordinates, eastings and northings, four figure area references, six figure grid references, and latitude and longitude expressed in degrees and minutes
- establish direction on a map using 16 point compass directions and bearings
- interpret and express scale in written, linear and ratio formats, and convert scale from one format to another
- apply the map scale to basic calculations to determine time, speed, distance and area
- interpret relief on a map using contours, height information and spot heights to describe the steepness and shape of a slope, including concave, convex and uniform, and calculate the average gradient expressed as a ratio
- identify different relief features and landforms, including hills, valleys, plains, spurs, ridges, escarpments, saddles, cliffs, types of natural vegetation cover and hydrological features, including land subject to inundation, perennial and intermittent water bodies
- interpret, construct and annotate cross sections to show natural and cultural features on the landscape
- construct simple annotated sketch maps using map conventions, including border, title, legend, north point and approximate scale
- identify and interpret natural features and cultural features on a map
- describe the site and situation of places
- identify, describe and interpret spatial patterns, including land use, settlement and transport, and spatial relationships between natural and cultural features on maps
- interpret and describe changing patterns and relationships that have taken place over time

Remote sensing skills (use of remote sensing products, such as ground level photographs, aerial photographs, radar imagery and satellite imagery)

- identify and describe natural and cultural features and their patterns on the Earth's surface using ground level photographs, and aerial photographs, including vertical and oblique, radar imagery and satellite imagery
- compare the different types of information available from remote sensing products with the information depicted on a topographic map
- use remote sensing products as an aid to interpreting natural and cultural features shown on topographic maps
- determine direction on remote sensing products
- apply scale to the calculation of distance on remote sensing products
- interpret the difference in scale between a photograph and a topographic map of the same place
- use combinations of remote sensing products and topographic maps to provide information based on change over time

Geographical and statistical data skills (use of geographical and statistical data in formats, such as tables, graphs, maps, diagrams)

- calculate and interpret descriptive statistics, including arithmetic mean, median, mode, maximum, minimum and range and frequency
- identify correlations between variables
- interpret and apply data from different types of statistical maps (e.g. isopleth/isoline maps, choropleth maps, proportional circle maps, overlay and dot distribution maps)
- interpret and construct tables and graphs (e.g. picture graphs; line, bar and compound graphs; histograms; scattergrams; climatic graphs; pie graphs; flowcharts, population pyramids)
- use systems and flow diagrams to identify relationships
- identify that statistical or spatial association does not prove a causal relationship

Skills in the use of information and communications technology and geographical information systems (in a geographic context)

- use the internet as a tool for geographical research
- use simple applications, software and online resources (e.g. Google Earth, Google Maps) to access
 atlases and remote sensing products (e.g. photographs, radar imagery, satellite imagery) for the
 purpose of describing and interpreting spatial patterns and relationships
- access databases (e.g. Australian Bureau of Statistics, Bureau of Meteorology) for spatial and statistical information
- use geospatial technologies to collect and map spatial data

Fieldwork skills (use of field observations and measurements)

- collect primary data using field techniques (e.g. surveys and interviews, observing and recording, listening, questioning, sketching and annotating, measuring and counting, photographing, note taking)
- collate primary data using techniques (e.g. listing, tabulating, graphing, constructing diagrams, mapping)
- analyse and interpret primary data

Unit 3 - Global environmental change

Semester 1

Week	Key teaching points
1	 Overview of type, rate, extent, causes and consequences of land cover change Reference should be made to global forests, agriculture and urban land cover. define the concepts of environment, natural and anthropogenic biomes, land cover change, ecosystem structure and dynamics, biodiversity loss, climate change and sustainability describe the processes of land cover change, including deforestation, the expansion and intensification of agriculture, the growth of urban settlement and mining
2–5	 describe how remote sensing images are used to identify and measure the location, type, rate and extent of land cover change Mapping skills (use of maps and atlases) Remote sensing skills (use of remote sensing products, such as ground level photographs, aerial photographs, radar imagery and satellite imagery) Geographical and statistical data skills (use of geographical and statistical data in formats, such as tables, graphs, maps, diagrams) Skills in the use of information and communications technology and geographical information systems outline the impacts of world population growth on the type, rate and extent of land cover change outline the impacts of growing affluence and advances in technology on the type, rate and extent of land cover change outline how two of the following factors account for difference in land cover change between two countries: government policy; ideology; land ownership; type of economy; and culture explain the impact of Aboriginal and Torres Strait Islander peoples' land management practices on land cover over time explain two of the following impacts of land cover change: changes to the water cycle; soil erosion and degradation; loss of habitat and biodiversity; loss of ecosystem services; the degradation of aquatic and marine environments; and urban heat islands Task 1: Response/Practical skills
6	Depth study one — Using fieldwork and/or secondary sources, students investigate the links between changes in land cover and changes in either global climate or biodiversity. (For the purpose of exemplifying the course content, biodiversity is the selected topic in this course outline). • describe the spatial distribution of the world's biomes • describe the key elements of ecosystem structure and dynamics, including: • biotic and abiotic elements • food chains and webs • biomass • trophic levels • flows of matter and energy

Week	Key teaching points
	 explain two natural and two anthropogenic causes and rate of declining biodiversity describe one major type of evidence for loss of biodiversity through geological time describe one major type of evidence for loss of biodiversity in recent human history
7–8	 explain the interrelationships between land cover change and biodiversity loss, including shifting ecological boundaries, evolutionary diversification and species extinction discuss the present and projected impacts of biodiversity loss in one natural and one anthropogenic environment (e.g. changes to: ecosystem services and species; ecosystem and genetic diversity; human foods and medicinal plants) Geographical and statistical data skills (use of geographical and statistical data in formats, such as tables, graphs, maps, diagrams) Skills in the use of information and communications technology and geographical information systems
	Task 2: Response/Practical skills
	Depth study two – Using fieldwork and/or secondary sources, students investigate how the impacts of land cover change are being addressed and evaluated.
9–10	 discuss three ways human activity has adapted, or may be required to adapt, to either global climate change or loss of biodiversity discuss how two strategies aim to mitigate either global climate change or loss of biodiversity
	 explain two strategies designed to address the impacts of land cover change on local and/or regional environments evaluate the two strategies designed to address the impacts of land cover change, using the concept of sustainability
	 Skills in the use of information and communications technology and geographical information systems (in a geographic context)
11–13	Fieldwork skills (use of field observations and measurements)
11 10	 Geographical inquiry skills observing, questioning and planning collecting, recording, evaluating and representing interpreting, analysing and concluding communicating reflecting and responding Task 3: Geographical inquiry/Fieldwork – in-class validation
14	Revision
15	Task 4: Examination

Unit 4 - Planning sustainable places

Semester 2

All the Geographical inquiry and skills must be taught during this unit. Relevant skills should be emphasised for each depth study.

Week	Key teaching points
1–2	 Overview of Places and their challenges describe the process of urbanisation describe the concept of liveability describe the implications of urbanisation on world population growth in urban and rural places outline the economic and environmental interdependence of urban and rural places describe the historical, cultural, economic and environmental factors that have contributed to the spatial distribution of urban and rural places in Australia
3–4	 outline the changing demographic characteristics, including age and gender, socioeconomic and cultural distributions, in urban and rural places in Australia define the processes of urban sprawl, invasion and succession, renewal, land use planning, land use competition, inertia and agglomeration select four of the following challenges facing places located outside major cities in Australia, and explain why each presents a challenge to these places: population loss; economic restructuring; employment; housing; service and water provision; concentrations of socially vulnerable populations; social exclusion; transportation; resource degradation; land use conflicts; declining political influence, isolation and remoteness; fly-in/fly-out work patterns. Geographical skills Mapping skills (use of maps and atlases) Remote sensing skills (use of remote sensing products, such as ground level photographs, aerial photographs, radar imagery and satellite imagery) Geographical and statistical data skills (use of geographical and statistical data in formats, such as tables, graphs, maps, diagrams) Skills in the use of information and communications technology and geographical
	information systems Task 5: Response/Practical skills
5	Depth study one – Using fieldwork and/or secondary sources, students investigate two significant challenges in either metropolitan Perth or a regional urban centre in Western Australia and how these challenges are being addressed. (For exemplifying the course content, metropolitan Perth is the selected place, transportation, and urban sprawl the significant challenges in this course outline).
	 For the selected place, students: describe the site, situation, internal and external morphology explain the following demographic characteristics: age, gender, socioeconomic and cultural distributions

Week	Key teaching points
6–7	 For challenge 1: transportation explain the scope and causes of the challenge, and the impacts for metropolitan Perth discuss the views of two stakeholder groups related to the challenge explain two planning strategies used to address the challenge evaluate the two planning strategies used to address the challenge, using the concept of sustainability evaluate the extent to which the two planning strategies used to address the challenge, have or will enhance the place's liveability.
8–9	 explain the scope and causes of the challenge, and the impacts for metropolitan Perth discuss the views of two stakeholder groups related to the challenge explain two planning strategies used to address the challenge evaluate the two planning strategies used to address the challenge, using the concept of sustainability evaluate the extent to which the two planning strategies used to address the challenge, have or will enhance the place's liveability. Geographical skills Mapping skills (use of maps and atlases) Remote sensing skills (use of remote sensing products, such as ground level photographs, aerial photographs, radar imagery and satellite imagery) Geographical and statistical data skills (use of geographical and statistical data in formats, such as tables, graphs, maps, diagrams) Skills in the use of information and communications technology and geographical information systems Task 6: Response/Practical skills
10	 Depth study two – Using fieldwork and/or secondary sources, students investigate two significant challenges faced in one megacity. (For exemplifying the course content, Tokyo is the selected megacity and transportation and waste management the significant challenges in this course outline). For the selected megacity, students: describe the site, situation, internal and external morphology explain the following demographic characteristics: age, gender, socioeconomic and cultural distributions.

Week	Key teaching points
11–13	 For challenge 1: transportation and for challenge 2: waste management explain the scope and causes of the challenge and impacts for the selected megacity explain two planning strategies used to address the challenge evaluate one planning strategy used to address the challenge, using the concept of sustainability evaluate the extent to which one planning strategy used to address the challenge, has or will enhance the place's liveability.
11 13	 Geographical inquiry skills observing, questioning and planning collecting, recording, evaluating and representing interpreting, analysing and concluding communicating reflecting and responding Task 7: Geographical inquiry/Fieldwork – in-class validation
14	Revision
15	Task 8: Examination